

G. Rutherford, 78
in Dec 20, 01

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

Vol. XXXVI. WINNIPEG. MAY 20, 1901. MANITOBA. No. 526

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CONTENTS OF THIS NUMBER.

	PAGE.
TEACHING STOCK JUDGING	203
BRANDON EXPERIMENTAL FARM NOTES	203
CLEANING CROP AND FODDERS	203
SUMMER FAIR DATES	203
A PROLIFIC FLOCK	203
AGRICULTURAL TEACHING IN RURAL SCHOOLS	204
THE FENCE PROBLEM	204
EXTENSION OF CANADIAN PURE-BRED STOCK TRADE	204
A BEEF RING FOR 20 MEMBERS	204
HOW TO GROW SUGAR BEETS	205
SHROPSHIRE SHEARLING RAM (No. 122) (ILLUSTRATION) ..	205
THE PROPER WAY TO ROLL BREAKING	205
THE GOVERNMENT SEED SHOP	205
JUMPING HARD ON THE THOROUGHBRED ADVOCATES	205
THE HARRINGTON HALL FLOCK OF SHROPSHIRE	205
SHROPSHIRE RAM LAMBS (ILLUSTRATION)	205
CONTAGIOUS ABORTION IN COWS	206
SELECTING STUD STOCK	206
RAISING AND FEEDING STEERS FOR PROFIT	206
MILITARY TOURNAMENT AND HORSE SHOW	207
LITTON (250) (0681) (ILLUSTRATION)	207
"THE HOLSTEIN INTEREST IN CANADA"	208
VARIOUS BREEDS OF CATTLE AT THE UNION STOCK YARDS, CHI- CAGO	208
A DAIRY SCHOOL EDUCATION	208
SUCCESSFUL CALF FEEDING	208
TRAINING A COLLIE	209
WILCOTT THUMPER (1842) (ILLUSTRATION)	209
DRAFT HORSE BREEDING	209
GOOD STOCK WATER SCHEME	209
SQUIRE RICKELL - 74 (ILLUSTRATION)	209
FARM SIFTINGS	209
A HINT FROM ABROAD	310
THE FARM SEPARATOR IN HOME AND CREAMERY BUTTERMAKING ..	310
SPRINGTIME ON THE FARM	310
CLEAN MILKING IMPORTANT	310
RAPE AS A FORAGE CROP	311
CONNAUGHT HEIR - 116 (ILLUSTRATION)	311
CHARLOCK SPRAYING	311
GIVE THE BOYS A CHANCE	311
THE SCORE CARD IN THE JUDGING OF BUTTER	311
HEMIA - 20 (ILLUSTRATION)	311
THE BRITISH EMBARGO ON CANADIAN CATTLE	312
ENRICHING SEPARATED MILK FOR CALF FEEDING	312
BEE MOTHS (ILLUSTRATED)	312
THE BATTLE AGAINST LICE IN POULTRY	312
THE SPRING CHICK	313
DUCK RAISING	313
HORTICULTURE: - TIMELY SUGGESTIONS	313
QUESTIONS AND ANSWERS: VETERINARY: WORMS AND SWAMP FEVER; LABORED BREATHING; A VARIETY OF AILMENTS; ATROPHY OF THE LIVER IN PIG; ABORTION IN MARK MARK WITH MIXED CAIT; DISKASED LIVER IN COW; BLACK-QUARTER IN CATTLE; HEAVES; PHANTOM PREGNANCY	314
MISCELLANEOUS: - LICE ON COW	314
CHICAGO MARKETS	314
HOME MAGAZINE.	
THE FAMILY CIRCLE	315
"ON THE THAMES" (ILLUSTRATION)	315
THE QUIET HOUR	316
THE CHILDREN'S CORNER	316
"CONVALESCENT" (ILLUSTRATION)	316
GOSSIP	317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327
NOTICES	329, 326
BOOK REVIEWS	321
ADVERTISEMENTS	301 and 302, 317 to 328

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

PERSEVERE AND SUCCEED
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Vol. XXXVI.

WINNIPEG, MANITOBA, MAY 20, 1901.

No. 526

Teaching Stock Judging.

It will have been noticed that in the scheme for a Provincial School of Agriculture, in issue of March 5th, and in the editorial of Commission on Agricultural Education, in the last issue, special attention is called to the teaching of animal husbandry. A general idea of the topics discussed under that subject has already been given, namely, the breeds of domesticated animals, including their history and characteristics, the principles of breeding, feeding and judging live stock, together with the elements of veterinary science and bacteriology. It will at once be seen that to compass such a subject is no child's play, neither is it a subject to be taught except by specially trained men; no mere study of books can qualify one to teach such a subject.

In this connection we are reminded of some questions coming from readers of our agricultural college scheme: "How can a professor teach stock judging unless he has raised, fed and sold live stock, and thus found by practical experience why the money is in one animal and not in another?" The seemingly low estimate of a professor's knowledge implied in the question is not altogether inexcusable. When agricultural colleges were first started, stockmen educated to express themselves as teachers were not available; consequently, what little teaching was done necessitated the employment of men whose training was entirely academic—educated men, yet not versed either in the principles or practice of live-stock husbandry, nor entitled to be considered as live-stock judges.

The advanced agricultural colleges are now turning out men trained in live-stock work, who are qualified to act as teachers of animal husbandry or to act as live-stock judges, so that the objection to the professor is no longer tenable. The assumption of all live-stock knowledge by the man who feeds and handles live stock, under the plea that he alone is *practical*, is unwarranted and unsound. Too many people seem to think that the only qualification of a practical stockman is that he has made his living by handling stock.

In the industries, the so-called practical man has no place to-day: the really practical man is the one in possession of the *principles* underlying his work; therefore, we find that the professor's claim to be considered practical is the only right one, namely, a knowledge of the principles that underlie practice!

The teaching of live-stock judging involves a knowledge of the principles of draft, of milk or meat production, and of the reproductive powers, all of which are indicated to a great extent by the conformation of the animal. A description of the methods used in the teaching of live-stock judging will aid in making clear the advantages to the young farmer of such instruction.

The following will illustrate the method adopted in teaching the element of draft-horse judging. The instructor gives, first of all, a clear description of a draft horse, impressing on the students the essential points, such as weight, quality of feet and limbs, and the gait, and endeavors to get into their minds an ideal of a model draft horse. The drafter used as an illustration by the instructor is then made to walk straight-away, it being explained that a rolling motion means loss of draft power. The walk should be rapid, so as to accomplish plenty of work, and the tread should be even and elastic, with no tendency to stumble, thus avoiding to some extent the wear and tear of the feet. The gait at the trot is then reviewed, notice being taken of the way the legs are handled, not crossed or mixed up, the joints well flexed and the limbs extended properly. The trot will aid in showing the presence of any unsoundness, and as a test for the wind. The horse is then made to stand squarely on its feet, while several students go over the animal, point by point, the head and eyes, the neck, the shoulder, the fore-slim, the arm, forearm as to its position, the hock, the knee as to its size, the cannon bone,

their shape, the tendons as to their being clean and well defined, the slope of the pastern, the width of the hoof heads, size and texture of the hoofs and the appearance of the sole and frog, are all gone into and carefully summed up. The depth of the chest, indicating lung capacity, the closeness of the coupling and depth of the back ribs are noticed, the latter being evidences of the digestive and wearing powers; the length and straightness of the back, width of loin over the kidneys, length and straightness of rump, the setting on of the tail, the shape of the hips, all aid in determining the fitness of the animal for its work according to draft standards. The muscling through the stifle and of the lower thigh, together with the rump muscles, are taken together as an indication of the propelling powers, depending on the development of the parts mentioned. The size and cleanness of the hocks, absence of spavins, etc., the cannons and their tendons, the pasterns and feet, receive similar attention to that accorded the fore limbs. The junior student marks the score card, his score showing where he considers the animal deficient. A corrected score is given the class by the instructor, thus showing them the points overlooked, too heavily scored, or underscored—the perfect score being 100 points.

The use of the score card is continued until the student is thoroughly familiar with the points and their respective score-card values. Score-card values are obtained not by any arbitrary method, but from the experiences and opinions of the best judges, and are intended to show the student the relative importance of the different points.

Score cards done with, advanced work for senior students—namely, judging by comparison—begins, two or more animals being required for this phase of the work. Similar methods are followed in comparison judging, save that the students are furnished with a blank sheet of paper on which they will mark the animals placed first, second and third, each animal's weight and sex, and give the reasons for placing each animal in its position. As soon as the students have completed the work, a "quiz" is conducted or the awards made, and if the placings are wrong, the instructor endeavors to make each student see why and how the awards were wrongly placed.

The teaching of the method thus outlined will not of itself make a man a live-stock judge. One result will be that the farmer's son so trained will involuntarily sum up the good and bad points of animals—analyze them, in fact. Constant practice in analyzing and comparing animals, both at the farm and at the agricultural show, will in time make a person a judge of live stock.

Brandon Experimental Farm Notes.

Seeding commenced on the Experimental Farm on April 9th, but owing to the snowstorm of the 15th, no seeding was done during the third week of the month. By the 22nd, some of the higher fields were again in good condition, and the drills have been busy every day since. With the exception of the very small plots, wheat seeding was finished on April 26th.

We find that an unusual number of perennial and winter annual weeds started during the wet weather last fall, and the land requires a great deal more work than usual to prepare it for seeding. When the soil is dry and not filled with coarse rubbish, the wide-toothed lever cultivator makes a clean sweep of these weeds, but on land filled with trash or that is slightly sticky, a disk harrow gives the best satisfaction.

We have sown, so that it is likely to meet with severe frost when the plant is in its most tender stage. Later sowings a week apart will enable us to obtain some light on the best time to sow this newly introduced grain.

Beams grass before the end of April was from three to four inches high, and the cattle were feeding on it all day long, while there was not a bite on the farm pasture.

Cleaning Crop and Fodders.

With the increasing attention to stock-raising and dairying, and the rapid settling up of the country, the question of winter feed becomes more and more important. While straw and prairie hay, where obtainable, can be utilized to good purpose in carrying stock through the winter, everyone recognizes the value of some additional food of a more succulent nature. For this purpose there is no crop that yields more abundantly or that furnishes succulent food in as convenient and easily-handled a form as corn; but corn is looked upon as a very doubtful crop in most of the west. The Experimental Farm at Brandon has had most satisfactory results, and here and there throughout the Province individual farmers have obtained equally satisfactory returns. The seedsmen also tell us that every year there is an increased demand for seed corn.

Another advantage of growing corn is that it can be used as a cleaning crop and all the work done with horse-power. Sown late (May 20th, Mr. Bedford recommends), it gives great opportunity for killing several crops of weeds by harrowing the land at frequent intervals, just as the seeds germinate. It can be sown with a shoe drill in rows three feet apart (by stopping up the intermediate drill spouts) and cultivated with a weeder till three or four inches high, after which a horse hoe can be used till the corn shades the ground. In cultivating corn, care should be taken not to stir the soil deeper than three inches, so as not to disturb or cut the corn roots. Such cultivation given to a crop of corn not only cleans the land as well as a summer-fallow and makes available additional supplies of plant-food that but for the cultivation would have remained locked up, but it firms the soil, leaving it in excellent condition for a wheat crop. With a rich, deep soil, thorough cultivation, seasonable planting and a selection of suitable varieties, there seems no reason why corn should not be a much more popular crop in Manitoba. A few years ago it was considered a doubtful crop in Minnesota and Dakota, but of late has been growing rapidly in favor, and its northern limit is continually moving northward. The varieties recommended by Mr. Bedford are: Pearce's Prolific, North Dakota Flint, and Longfellow.

Other crops can be utilized to furnish a welcome addition to the straw and hay roughage. Barley can be sown late, leaving time to clean the surface soil of many annual weeds, and, when cut green, will make excellent fodder, at the same time taking off most weeds before they mature seed. The millets may also answer a good purpose, but require more care in curing and feeding, as there is always more or less liability of getting foul weeds in the seed.

Summer Fair Dates.

Edmonton Summer Fair	July 1 to 3
Calgary	July 10 to 13
Yorkton	July 15
Wawanesa	July 18
Carman	July 18 and 19
Carberry	July 18 and 19
Virden	July 18 and 19
Portage la Prairie	July 23 to 25
Brandon	July 23 to 26
Minnesota	July 29
Winnipeg Industrial	July 29 to Aug. 3
Oak River	Aug. 6
Neepawa	Aug. 6 and 7
Qu'Appelle	Aug. 7 and 8
Moosomin	Aug. 8 and 9
Regina	Aug. 13 and 14
Hartney	Oct. 1, 2

A Prolific Flock.

W. R. Barlow, Kelowna, B. C., writes under recent date: "Can any of your subscribers beat this? From twenty-six ewes I have had this spring fifty-three lambs, and only lost three, these being from three different sets of triplets."

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

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
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Agricultural Teaching in Rural Schools.

The Legislature of Minnesota has made an appropriation of \$2,000 per year, for the next two or three years, for the encouragement of the study of agriculture in the rural schools of that State. In writing on methods for utilizing the appropriation, Prof. Hays, of the Minnesota Agricultural College, says in part:

The sum appropriated is small, but if wisely administered it will lead to much that is desirable. Our schools do much to mold our national ideals. As now organized, a powerful influence is exerted away from rural life. In our rural schools, in our elementary town schools, in our city high schools, in sectarian academies and colleges, and in state and independent universities, the text-books and teachers' ideals all lean toward city life, and too much toward the mere scholastic and professional rather than toward the productive industries. The life of the people and the life of the nation demand a broader scheme, that will better emphasize and encourage both lines of education and of individual effort. We want not more preachers, lawyers and doctors; we want better preachers, lawyers and doctors. More than all, we need legions of farmers educated in their business, and in farm living, and educated in a broad citizenship. If the faculty at University Farm can gain an influence with the children in every rural school in the State, they will be able to turn the tide more rapidly toward a better agriculture and a richer country life.

Increasing the respect and love our rural children have for the country life will lead many more of them into the schools of agriculture. When our graduates in each county have reached large numbers, and our farms generally study agriculture, all kinds of profitable enterprises will be possible. A large county agricultural society, strong county agricultural societies, and local farm clubs and grants will be formed. The special state district societies, and the horticulture, dairy, and stock societies, will be organized, and the agricultural press will be greatly increased and more generally patronized and read, and more the country's light.

The Fence Problem.

Farming in the older-settled sections of the West is undergoing a transition, from the rough-and-ready way of the pioneer to the systematic and scientific methods of the advanced agriculturist. A systematic rotation of crops, including seeding down to grass, is now recognized by all thoughtful men as a present-day necessity, if the productiveness of the soil and ability to grow a No. 1 hard wheat is to be maintained. In order to properly utilize the grass land, fencing becomes imperative, and herein lies one of the most difficult problems, owing to the cost of fencing material.

THE HEDGE FAKE.

An active demand for fencing, together with the expense of good fence pickets and wire, creates the opportunity for the faker with the patent fence, the slickest of whom is the patent hedge-fence man, with his alluring colored plates of beautiful blossom covered hedge-rows, with nature's growth so marvelously trained that the mesh is close enough to intercept the gopher and, at the same time, strong enough to be "bull-proof." These wonderful combinations of hedge plants (at so much a thousand), that are sure to grow, and a few strands of barb wire (at wholesale), are bound sooner or later to be offered to the Manitoba farmer, and, like the farmers in every other civilized country, experience bought and paid for is likely to be the only thing that will convince them of the uselessness of the hedge fence. Doubtless, too, local companies will, in due time, be organized to sell and plant hedges, and farmers will be offered special inducements to invest some of their surplus cash in the shares of these companies, whose only hope of success is in the gullibility of the public. Those who remember the osage-orange and locust hedge fakes that were successfully worked some years ago—and many may have cause to remember—will not be so easily caught in the meshes of the patent-hedge man.

HEDGES UNSUITABLE.

Hedge fences are totally unsuited to the conditions of prairie farming, when one considers what the growing of a hedge means. For the growing of any kind of trees or shrubs in this country, cultivation is absolutely essential. Think of the labor necessary to thoroughly cultivate a strip of 3 or 4 feet along both sides of a hedge a mile or two in length, and to keep down all weeds and grass (including twitch-grass), for several years; then, to insure a thick undergrowth in the hedge, it must needs be kept closely and frequently trimmed for all time to come. As a reward for all the labor, the hedge, even if it has grown fairly well, is at best a poor substitute for a wire fence. It collects snow-drifts, which break down the hedge and keep the land adjoining wet until late in spring, and in the event of soil drifting from the adjoining fields, the results to the hedge would be disastrous. Anyone who desires a nice bit of hedge along the garden border will be well repaid for the labor necessary to obtain it and keep it in shape, but few who stop to consider are likely to undertake to hedge-fence even the boundary line of a quarter-section farm.

Extension of Canadian Pure-bred Stock Trade.

The recent purchase in Canada, by Mr. Alex. Bruce, in conjunction with Mr. Wm. Nelson, of Liverpool, England, of a number of Shorthorn bulls for shipment to the Argentine Republic, in South America, elsewhere referred to in detail in this issue of the ADVOCATE, while not the pioneer exportation of pure-bred stock from this country to that—a trial consignment or two having been made a few years ago by Mr. W. C. Edwards, of Russell County, Ontario—indicates the possibility of a new and particularly desirable market for Canadian pure-bred stock, should the venture prove a financial success, as it is earnestly hoped it may. The present relations between Great Britain and the Argentine in regard to the importation and exportation of live stock, owing to recent outbreaks of foot-and-mouth disease, are such as to prohibit, for the time being, trade in that line, and the South American cattle-breeders in the meantime, in looking around for available supplies, have naturally turned their attention to Canada and the United States, where, for nearly a century, such stock has been propagated from importations from the parent land and bred with a gratifying degree of success, adding immensely to the value of the farm stock—and, consequently, to the wealth of both countries on this side of the sea. It is well known that Argentine breeders are discriminating buyers, that the best is none too good for them, and that they are not open to the imputation of haggling over the price if the quality of the animals is good enough to suit them. A knowledge of the discretion used by our new customers in buying should prove an incentive to Canadian breeders to produce superior stock in large numbers, giving the necessary care and treatment to ensure their best development, in order that we may secure and hold the trade that has been opened.

The increasing interprovincial trade resulting from the rapid development of the West, the general prosperity prevailing in the country, and the demand for pure-bred stock from the Maritime Provinces and also from the sister Provinces of British Columbia and the Northwest, is gratifying and encouraging to breeders in all sections of the Dominion.

The organization of the Dominion and Provincial

Stock Breeders' Associations is properly created with much influence in bringing about this increased trade by their successful efforts to secure from the railway companies favorable freight rates for the shipment of registered pedigree stock, making it possible and practicable to spread the influence of good blood over wide areas of the Dominion. A policy which we are confident will prove profitable in the near future to the railway companies as well as to the farmers. The opening up, and settlement of new sections of the country results in the production of commodities the transportation of which brings revenue to the roads, and so the improvement of the breeding and quality of live stock brings trade and commerce in the shipment, for home and foreign consumption, of a better class of stock and of its products in the form of beef, bacon, mutton, wool, milk, butter, cheese, poultry, etc., and the benefit to producers and carriers is mutual.

The United States, our natural outside market for this class of stock, owing to its nearness and the adaptability of large areas of its territory for stock-raising, will doubtless continue to take a large share of our surplus, as it has done in the past, and all that is needed to give the fullest scope to this great industry is the removal of the unnecessary and galling restrictions which, under the guise of protection, and at the whim of interested officialism, have been fastened upon it, vexatiously hampering a trade which, but for this, would be one of our most prosperous and satisfactory enterprises.

A Beef Ring for 20 Members.

Enclosed please find chart which I use for cutting up beef for a ring of 20 members. I have used it for three years, and it has given the best satisfaction of any ring in this locality. Several applicants have asked me to give my chart, and to explain how to run it. I think it will be readily understood. It is run just the same as the one for 16 members. Our rules are just the same as for a ring of 16 members. The only difference is, we have the members furnish a basket or cotton bag to put the beef in when cut up.

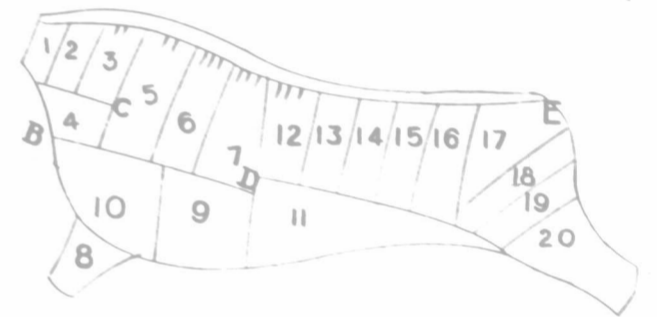


CHART FOR BEEF RING OF 20 MEMBERS.

Then we hang it up, with their names on it. You will see by my chart that the beef will have to be quartered a little differently from yours for cutting the beef up in 10 pieces. To give each party a boil and a roast, it must be divided after the beef is cut down in halves. You must cut it across between Nos. 7 and 12, leaving four ribs on the hind quarter. After laying the front quarter on the table for cutting up, you will cut off front shank, No. 8; then cut from line B, making two pieces (Nos. 10 and 9); then take off neck, No. 1; then take roast No. 7 (3 ribs in it); roast No. 6 (2 ribs); roast No. 5 (2 ribs); then cut across to line C, taking piece No. 4 (boiling piece); then No. 3 (2 ribs in it), leaving piece No. 2. After cutting up the two fore quarters, you will let down the hind quarter on the table, and cut from line D, leaving flank, No. 11; then cut roast No. 12 (3 ribs in it); then follow along 13, 14, 15, 16; then cut across line E, rump roast, No. 17; then cut off Nos. 18 and 19, leaving hind shank, No. 20.

This is a table to put the pieces for each one:

Nos.	Boil and roast.
1 and 18
2 and 16
3 and 12
4 and 13
5 and 17
6 and 20
7 and 11
8 and 15
9 and 14
10 and 19

The weight of the beef is supposed to be not less than 100 lbs., and not to exceed 500 lbs., all to be cut up and divided into 20 shares. I think the beef should not be less than 150 lbs. It cuts up in much nicer pieces.

JOHN I. BALDWIN.

The recent United States census shows that the total number of farms in the Republic has increased during the past ten years from 4,500,000 to 5,700,000, an increase of 26 per cent. more than keeping pace with the growth of population. Hence the big farms are not swallowing up all the small ones. The number of farms worked by their owners is 500,000 more than ten years ago, or an increase of 18 per cent. At the same time, tenant farmers increased about 40 per cent. The greatest increase in tenant farmers has been in the Eastern and middle Western States, where owners have retired to cities and towns, leasing their farms to others. Very recently a popular movement has set in whereby men of means purchase and run fine farms on which they reside with their families throughout the summer season instead of going to high-priced and often stuffy fashionable resorts. Altogether, from these points of view the outlook for American agriculture is encouraging.

How to Grow Sugar Beets.

Whether through design or what is called good luck, it was certainly a fortunate circumstance whereby Dr. A. E. Shuttleworth, Chemist of the Ontario Agricultural College, when taking his supplementary course in agricultural science in Germany a couple of years since, found himself in the midst of one of the areas of that country where sugar-beet culture has been reduced to a science and is prosecuted with a degree of success attracting the attention of the world. Devoting himself to a study of the subject, both from the practical and the scientific point of view, he returned to



SHROPSHIRE SHEARLING RAM (No. 1292).
First prize, Royal Show, Maidstone, 1891.
OWNED BY MR. A. E. MANSELL, HARRINGTON HALL, SHIPNAL, ENG.

Canada full of the theme and ready for the sugar-beet propaganda now under way. The campaign of investigation and education begun last year with most encouraging results, under his direction, in three districts, is being continued this season in some fifteen different areas of the Province of Ontario. In each of these some twenty-five farmers with soil and other conditions suitable are putting in a quarter of an acre each according to approved methods and under skilled direction, and which will likewise be cultivated and harvested under supervision and analyses made of representative samples by Dr. Shuttleworth, so that by next fall not only will a great deal of valuable experience be gained by the growers, but the general data as to sugar content of beets, purity and yield obtained will be of an extensive and thoroughly trustworthy character. Preliminary to the inception of these trials, Dr. Shuttleworth has gone from point to point addressing gatherings of farmers and others interested. At the London (Ont.) meeting he indicated the scope for the industry by stating that it would require the output of thirty large factories, valued at about half a million dollars each, to furnish sugar for Ontario use alone. With soil conditions and climate such as exist, and proper cultivation, there was no doubt about successful sugar-beet growing, which would not only prove an extremely profitable crop for the grower, but tend to improve the fertility of the soil, owing to the fact that sugar extracted little from the soil, and the tops, which were good food for milk, and the pulp for fattening stock, etc., were restored. Properly speaking, the manure should be applied to a previous crop and the land deeply fall plowed, so as to increase its moisture-holding power. A fine, mellow seed bed is then secured by thorough spring cultivation, not more than three inches deep. The seed should be sown from April 20th to May 10th, on the flat, one inch deep, with an ordinary seed drill, in rows, say twenty-one inches apart, using sixteen pounds of seed to the acre. A drill set to sow one and five-eighths bushels peas to the acre would put in beet seed about right, with only every third spout running. To keep down weeds and break the crust, making a mulch and preventing evaporation of moisture, he recommended going up and down the drills with one of the "weederers." Then after the third leaf shows, first "bunching" them with a hoe and then by hand, removing all but one healthy plant every seven inches. Scuffle or cultivate frequently, not more than three inches deep, using an implement with the harrow form of teeth, so that the ground will be kept flat, being careful not to mould up. Cultivate twice a week, and after every rain. By the middle of July the luxuriant tops, through which, by the aid of sunshine, the plant collects its sugar from the air, should completely cover the ground, and the cultivation is done. As the season advances, the leaves become a rich yellow, and droop, the under leaves dying. The beet is then ready to harvest, at an average weight of from one-half to two pounds each.

The Proper Way to Roll Breaking.

In an article on soil cultivation, in our issue of March 20, by Mr. W. J. Higgins, a mistake is made in recommending the rolling of breaking crosswise with the plowing. What Mr. Higgins really meant to say was that the rolling should be done the opposite way from the breaking. For instance, if one goes round a land in breaking, he should have around in rolling. This is one of those little things that may seem unimportant to many, but that, nevertheless, makes a heap of difference in the quality of the work done and the returns in dollars and cents.

The Government Seed Shop.

The quotation given below, from the *Country Gentleman*, of Albany, N. Y., is an example of how a project, originally apparently very innocent and simple, has been prostituted in the hands of unscrupulous politicians. In the first place, the U. S. seed distribution was to introduce entirely new varieties which might prove advantageous to agriculture. It has now degenerated into a wholesale system whereby congressmen are enabled to parcel out from Washington vast quantities of free seeds to their favorites and "heelers," giving them at the public expense what should be purchased out of their own pockets. The people are thus corrupted and pauperized, and from these gratuities little, if any, real improvement can be expected. That the abuse is growing may be seen from the fact that while last year the seed contract was \$78,000, this year it is \$180,000. Our contemporary says:

"Judging by a number of packages of Agricultural Department seeds that have been sent to this office, the wrong and outrage of the free distribution has been made ten times worse this year than ever before. The pretence of a purpose to introduce new varieties has long been abandoned; but this year there is no pretence at issuing even valuable varieties, and, in fact, the names of the varieties do not appear! Just think of that! The packets are marked, 'Celery, a Selected Variety'; 'Cucumber, a Selected Variety'; 'Watermelon, a Selected Variety,' and so on and so forth, *ad nauseam*. We should think the contractors could easily supply the stuff, under these circumstances, for half the contract price of \$78,000—even supposing that the seeds are fresh. It would seem that somebody in the department must be either grossly incompetent or grossly dishonest. The thing has risen to the proportions of a national disgrace. What is Mr. Wilson thinking about?"

Jumping Hard on the Thoroughbred Advocates.

To the Editor FARMER'S ADVOCATE

SIR,—An article recently written by Mr. O. A. Coates seems to me to be a very valuable contribution to the horse-talk of this country. His defence of a large variety of the Standard-bred as a general purpose horse agrees with a great deal of evidence I gathered by systematic reading of American agricultural papers while attending our provincial agricultural school some years ago. His opinion of the Thoroughbred also agrees with my own. I once owned the stoutest and fleetest Thoroughbred that has ever landed in Nova Scotia, or is likely ever again to come this way. I knew thoroughly all about his descendants and the descendants of another famous Thoroughbred that left offspring here. They gave anything but general satisfaction; and now when I hear or read about men in prominent places advocating the improvement of our Thoroughbred, I feel that "jumping hard on them" would be rendering good service to our country. When one reflects on how very different the purpose for which the Thoroughbred has always been bred is from the purposes for which we in this country must breed horses, it seems absurd that he should so often be advocated as an "improver." The improvement he can effect needs to be corrected and improved again and again for very many generations before it is all right for the uses to which we put horses. Is not this about exactly the thing that has already been done in the Standard-bred, and, better still, I believe in the French Coach horse? These two breeds are evolved out of the original Thoroughbred, as we can see by tracing back their pedigrees. Here we have the great fleetness, endurance and beauty of the Thoroughbred nearly entirely retained, while an incomparably better disposition and a more useful action—good trot and walk—are added. The lack of a uniform good size as a breed is the great drawback of the Standard-bred as a producer of general purpose horses. Is not this about entirely overcome in the French Coach horse? I have read a good deal about how these horses are bred, and heard much favorable talk about them from parties who have had experience with them in the United States. Now I would be very well pleased to hear their

suitableness for our Canadian conditions discussed by some one who has had much experience with them. I am also at a loss to account for why there are so few Percherons in Canada and so many in the United States. Where considerable driving over hilly and stony roads, as in Cape Breton, is required of horses, in addition to heavy farm work, should not the Percheron be more suitable than the Clydesdale or Shire horse?
J. D. MCKINNON,
Cape Breton.

The Harrington Hall Flock of Shropshires.

Owing to the exceptional importance of the dispersal sale of Mr. A. E. Mansell's flock of Shropshire sheep at Harrington Hall, Shipnal, Shropshire, England, which is announced in our advertisement columns to take place upon August 29th next, we have departed from our usual practice and obtained from our English representative, who will attend the sale and execute commissions, or in any way further the interests of our readers, a brief account of the world-renowned flock.

Its foundation goes back the long period of fifty-seven years, during the whole of which time it has been managed by two of the admittedly best breeders and judges of the breed, the late Mr. T. Mansell, and his son, the present owner, Mr. A. E. Mansell. The flock is one of those few that is indeed and in fact a pedigree flock, for full individual pedigrees of each and every sheep, both on its sire's and dam's side, will be furnished. Away back to previous to 1877 has this record been carefully kept, and there can be no question but that it is mainly owing to this that the unrivalled and undisputed success that has been achieved by its produce in Great Britain, Canada, the United States and Australia is due.

Space will not, of course, permit of full extended pedigrees being given, but as typical of the rest we have included in our notice, as a sample, the extended pedigree of Royal Blood, first-prize ram at the Royal Show, York, in 1900, who was sold for export to Australia last August for \$1,150. Similar pedigrees are obtainable, so far as they go, for each and every one of the sheep included in the sale, which compose a flock which for its purity of breeding, true type and character, good wool and skins and uniformity, is practically unmatchable. The actual numbers that will figure in the catalogue are 70 yearling and two-shear rams, 260 young stock ewes, 120 yearling ewes, 120 ram lambs, and 130 ewe lambs. Therefore, any buyer who purchases at this sale will be able to secure in all cases a full extended pedigree that will be of considerable value to him, and in certain cases, where the older lines of blood are included, pedigrees that can hardly be equaled from any other flock.

Mere tabulation of the show-yard results are of little value unless the full report of each of these contests is known, for it is possible for any breeder who may not be successful at the larger and more important shows to exceed in the aggregate the number of prizes won thereat by success at smaller shows. Thus it is hardly advisable to go into any lengthy detail as to what this flock has won, more than to mention that at the four or five leading



SHROPSHIRE RAM LAMBS.
First-prize pair, Royal Show, York, 1900.
PROPERTY OF MR. A. E. MANSELL, HARRINGTON HALL, SHIPNAL.

English shows it has, during the last ten or a dozen years, won upwards of 150 prizes in the strongest competition, besides champion awards. It and its produce has won the Mansell Memorial Challenge Cup eight times out of the ten times it has been competed for, Mr. Mansell himself winning it four times, a feat no other breeder has yet accomplished. Twice it has been won by a ram bred by Mr. Mansell, twice by a son of a Mansell ram. This is a record which shows how good is the produce of the flock, for this particular prize, more than any

other, is entitled to the honored name of the "Blue Ribbon of the Shropshire Breed."

Now, as to sale records, these have to do with the sheep which have gone, and gone, we may remark, with such good effect to flocks both at home and elsewhere, that year by year the original purchasers have come again to get some more of that blood which once tried is ever after wanted. Therefore, a mere recapitulation of such records would be of but little value; they might or might not be a guide as to the values the present and final sale will realize. This time will prove, and we venture to hope that when the final sale record is made up, it will be one that will, so far as money value can, fully recompense the owner for his great work, and, at the same time, establish a record for the breed that will be one for future generations to attempt to exceed. In fact, a record that will enable that eminent and world-renowned firm of auctioneers, Messrs. Mansell & Co., of Shrewsbury, who will forward catalogues and full information, to again publish, as they did after the 1885 sale, when 45 yearling rams made the then unequaled average of £41 10s. 6d., another pamphlet entitled "Another Red-letter Day in Shropshire Sheep Annals."

[NOTE.—The sample pedigree referred to as being sent with the above notes includes reference to the records of 11 generations of high-class sires and dams, and would cover a whole page itself, which is greater space than we can afford to give it.—ED.]

Contagious Abortion in Cows.

The prevalence of abortion among cows is, we believe, on the increase in this country, and it is one of the most serious difficulties the stock-breeder and dairyman has to contend with. Prevention is so much better and cheaper than cure, that the utmost vigilance should be used to avoid the trouble. Much has been written upon this subject, and not a few cattlemen have confidence in the carbolic-acid treatment outlined by Mr. George Rice, in the FARMER'S ADVOCATE of January 21st in the present year, for prevention, which treatment consists in giving 20 to 30 drop doses of carbolic acid (according to size of cow) daily in a pint of water to cows exposed to the contagion, or of which there is reason for suspecting that they are predisposed to abortion.

Prof. Norgaard, of the U. S. Bureau of Animal Husbandry, has published an article on this subject, that so well commends itself that we herewith reproduce it, with the hope that it may prove helpful to some of our readers who may be troubled with this scourge, as it seems to us that the hints might well be adopted, in part, at least, if not in full:

"Infectious abortion is a disease which is caused by the introduction into the vagina of a specific micro-organism which causes a chronic catarrh of the mucous membrane of the uterus and results in the expulsion of the fetus before the normal time of parturition. It has recently been asserted by some authorities that the infection is almost exclusively introduced by the bull, and that a thorough disinfection of the prepuce and penis before service will prevent the cow from becoming infected. It is recommended to inject one quart of lukewarm solution of lysol, of a strength of one and one-half per cent., into the prepuce, immediately before the bull serves the cow. The cluster of hair at the opening of the prepuce should be shorn quite short, and the region thoroughly cleansed with the same solution. The injection is made by means of a common fountain syringe with a long nozzle. The latter is inserted into the prepuce, which is folded closely around it in order to prevent the fluid from running out again immediately. By elevating the reservoir, the solution may be forced to the upper end of the prepuce and the entire penis disinfected.

"It is also necessary to keep the stable as clean as possible by disinfecting the gutter regularly with one per cent. solution of sulphuric acid, and when a cow shows signs that she is about to abort, she should be immediately removed to another stable and her fetus and afterbirth should be burned.

"When a cow has aborted, it is necessary that at least two or three months be allowed to pass before it is taken to the bull again. During the first part of this period, the cow should be kept in a separate stable and treated with injections into the vagina of one per cent. lysol or creolin solution. This is done by the use of a piece of a common gray gas or rubber hose, about 4 feet long, to the end of which is attached a common one-quart funnel. The hose and the funnel should be thoroughly cleansed with boiling water before they are used, and the region around the vulva, including the root of the tail, should be washed with soap and water and irrigated with the lysol solution. The operator's hands and arms should be similarly treated. If the afterbirth has been retained, it should be removed at once and the uterus washed out, first with warm water, and then with about a gallon of the disinfectant. These injections should be continued once a day until the cow is thoroughly clean and all secretion has stopped.

"If these precautions are neglected and the bull is allowed to serve the cow as soon as it comes in heat again after aborting, the uterus will not have recovered, and the fetus will be expelled when quite small, and in due time the cow come in heat again. These very early abortions are, as a rule, not noticed, but as the system of the cow adapts itself to the infection, the period of the fetus' retention becomes longer and longer, until finally the cow is immune and the fetus is expelled at the full term of gestation. It is said to last from two to three years for the cow, and for a longer time, and

the bull which during that time serves the cow will carry the infection to all other cows he serves if the above precautions are not taken to prevent it. For this reason it is not advisable to sell or otherwise dispose of the cows that abort and to replace them with fresh ones, as such are very likely to become infected. Only those which, after treatment, prove to be permanently sterile should be prepared for the butcher."

Selecting Stud Stock.

Pessimists are already "getting busy" uncovering the mould of the past to find a reason for their fears that, in view of the present activity of the horse market, horse-breeders will overdo the thing in the next few years. Looking at it one way, these pessimistic fellows have a little ground for their fears too, if past breeding by horsemen is taken as a precedent. If any old kind of horse is used as sire or dam, it is quite likely that the market will be glutted if breeding is going on as extensively as reported, for plenty of scrubs are coming to market even now when horses are reported scarce. Keep your good mares on the farm; breed for quality, and you need have no fears that your horses will not find a good market. There is always a place for the good ones.—*Chicago Live Stock World*.

It is true that a horse of only moderate quality, if sound, will sell for a fair price if he suits a certain definite purpose, but it is only the superior few that return a satisfactory profit for the raising. There will probably be a greater percentage of mares in the country bred this season than for a long time, and those that are sound and properly mated will, barring accidents, produce a profitable progeny. That was good advice to keep the good mares on the farm. While quality in the sire and dam are equally important in producing offspring, we can only breed such mares as we possess, while we have more latitude in selecting the sire of brood foals. If a farmer wishes to breed horses and has no mares suitable, or wishes to breed more than he possesses, he then has to go out and purchase, which affords him an opportunity of selecting the dams of his foals, as well as the sires, and to select these wisely is a matter that one cannot afford to pass over indifferently. As a rule a man possesses a fancy for some particular class of horse, and it is with these he will best succeed, because he will incline to judge them more correctly and give them the detailed attention they require for best results. Unless one possesses that liking for horses that stamps him a horseman, he had better leave horse-breeding to others, as he is more likely to go wrong than right. It has often occurred that the old mare, lame or in other ways defective for work, is chosen to breed, because she has nothing else to do, or can do little else; but while this may prove satisfactory, there is a strong probability that some of her defects will show up in her offspring. The farmer who breeds only this sort is horse-breeder in a very slight degree, only to the extent that he can hardly help himself, although such old mares, when free of hereditary defects, such as ringbone, spavin, roaring, and the like, sometimes do produce well when they themselves are well bred and wisely mated.

Since the horse trade has adjusted itself into classes, the aim in breeding a mare should be to adhere to her particular class as far as possible. To this end, the crossing of breeds should be avoided. While we may expect a handsome blocky mare of the light draft type, bred to a good-looking light stallion, to produce a foal midway between them in form and weight, in many cases such crossing will be disappointing in producing an offspring quite different from either parent, probably leggy and altogether lacking in quality, and it is quality that counts in selling a horse. A mare that inclines to any particular desirable type, whether it be draft, roadster, saddle or carriage, should be bred to a stallion of the same breed as her sire, and it is not enough that he be of that breed, but also that he is sound and good-natured, a good individual, and descended from a superior parentage on either side of his lineage. Nor is it enough that the particular breed we have in hand should be adhered to in choosing the services of a stallion. There is often a wide difference in form and characteristics between the first and second prize horses in big classes of good ones at our leading exhibitions. Take, for example, the Clydesdale class at the recent Toronto Horse Show: the first-prize horse differed as much from the second-prize horse as though they belonged to different breeds, although each was an excellent individual worth a big price. On some classes of mares the first-prize horse would be more suitable, and *vice versa*. The breeder who is to select well, must have in his mind, and well defined, the form or type of an animal he desires to breed. This image, though only existing in the mind, should be as clearly defined as though it were a living thing. He is a victim for the sharp groom or agent unless thus equipped. Without being able to select with reference to a true type, he may undo in one generation what has been effected in two or three others, thus going backwards in having his mare produce a foal of less excellence than herself. Disposition and action are as important as form, and these have their indications that need not be mistaken by a horseman. It is of utmost importance to select a good walker, as a slow-

walking work horse is a time-waster, and a slow-walking roadster is exasperating to its driver.

With all the individual excellencies that could be desired, a horse should not be used as a stallion unless he is "well come." And that he have less of pedigree is not so important as that it possess excellence, especially in the near ancestry. A good cross two or three generations ago is as likely to crop up as any other, and it is no bad rule to be guided as far as possible by the progeny, if we can learn of these, of the sire we propose to use. Selection of sires must be continuous from generation to generation, for the time will never come when all the animals brought into existence will be equal to their parents. Some will excel them and some will not reach their standard. Great improvers of live stock are indeed few, and what we know of their methods leads us to believe that the most studious care was always given to the matings, endeavoring to perpetuate the good and overcome the undesirable.

Raising and Feeding Steers for Profit.

To the Editor FARMER'S ADVOCATE:

SIR.—There appears to be a general opinion among farmers this year, that any person who is lucky enough to own a number of steers cannot fail to make a profit out of his stock, either for stockers or by feeding them for the export market. No doubt there is a greater opportunity to make a profit on stockers this season than for a number of years. The prospects for those who stall-feed cattle are very encouraging for the coming winter. But there are a few matters to attend to in the breeding and feeding of steers. The dairy industry having proved so profitable throughout the country has induced many farmers to breed and feed their stock in such a way as to develop milking qualities of the herd. It has been found that beef breeds are usually unsuitable for their business, and cows of various dairy breeds and crosses have been substituted to a great extent. Our only remark is, "Proceed with the good work." But while doing so, remember that steers of dairy breeds are just as unsuitable for beef. By this, we mean grades of the dairy breeds, for we do not suppose there are many pure-breeds raised for this purpose. Steer calves of this class may be kept as slick and as good-looking as those of beef breeds for the first three months; afterwards they begin to show the breeding, and if beef is the object, they are kept at an expense to the owner, as they make very good veal, and that is a suitable time to dispose of them. Then arises the question, how can farmers raise young stock to consume the coarse feed of the farm. In the years past, it has been a custom with a number of farmers who raised grade stock of beef breeds, to destroy when young, or send to the block at six or eight weeks old, their surplus of calves, especially if engaged in mixed farming or dairying. If this system is continued, which is not probable, owing to the shortage of stockers at present, it will be an opportunity for those who handle the dairy breeds to procure calves to raise for beef. Otherwise it will be advisable to purchase grades of beef breeds to consume the surplus food and convert it into beef. Although they are rather scarce just now, still there are numbers of lean cattle sent to the shambles each week, many of which might be fed for beef and thus avoid glutting the markets with inferior stock. Many of them are grades of various dairy breeds; these are what dealers usually class as "scrubs." It is almost certain they are not a profit to any person, from the man who raises them, until they are served as second-class fare on the tables of the inhabitants of towns and cities. It is estimated that two-thirds of a full ration is required for the food of support. This being the case, it shows how unprofitable it is to sell lean stock, as they have received too little beyond the food of support, from which the profit, if any, is derived. In order to leave a fair margin for profit, they should realize the same price per pound as exporters. But only in times of scarcity do they command anything like beef price, except for first-class animals. Under proper management, the practice of purchasing stockers is a profitable business. Of course, the man who raises stockers for others to make profit on seldom succeeds in life he may rest with an easy conscience that he is only to be remembered in the next generation as a philanthropist.

It is an undisputed fact among the best stock-raisers, that the system of early maturity is the way by which success may be attained. The stock needs to be kept in a healthy condition, and kept growing steadily. It is not advisable to feed strong grain until cattle are being fed for export. The greatest importance should be attached to feeding a ration suitable to secure rapid growth. The bulky part may consist of oat straw, corn fodder and chaff, with enough roots to aid the animals' appetite and the digestion of the food. Hay may be fed to advantage in place of oat straw for one or more daily meals, especially in case of yearlings. In fitting for beef, much of the same feed may be used, in addition to ground oats and peas. The grain should be fed sparingly at first, increasing to full amount. This is the critical period. The greatest gain in flesh and weight is now required at the least possible cost. There is a difference in the constitutions of individual animals, and one pound too much grain may put one off its feed, and if this is done, it will not thrive so well afterwards. HENRY SMYTH.

Military Tournament and Horse Show.

(Continued from page 281.)
CLYDESDALE MARES.

Out of five entries, there were four present: Mr. O. Sorby's Sonsie Lass and Diana Mackay, and A. G. Gormley's Kitty Tyrall and Rose of Burdennet. The Sorby pair, bred by N. P. Clark, Minn., are of the best Scotch pattern, not quite as heavy as their rivals, but better at the pasterns. Sonsie Lass, forward in foal, won 1st, her mate second, and Kitty Tyrall 3rd. The Gormley mares, by Lord Lieutenant, are a massive pair, weighing about a ton each, and are well formed. In harness, the same positions were retained; Geo. Moore, Waterloo, coming 3rd with a pair of powerful geldings, and had his high horse been well mated, he would probably have stood higher.

SHIRES.

A much larger class of this breed was expected than appeared, as three firms making entries evidently changed their minds about showing. This was disappointing, as some of the best stallions that have left England had their names in the catalogue. Bawden & McDonell, John and J. M. Gardhouse were forward with good representatives of the breed. Belshazzar, the low-set, deep, broad, mature horse, with excellent quality and quantity of bone, that was imported from England in the fall of 1899 by Bawden & McDonell, Exeter, Ont., and shown by them several times since without a defeat, had for rival Wilcot Thumper, owned by the same firm, a massive four-year-old, of the useful type. John Gardhouse showed a colt foaled in 1899. He is by Pride of Hatfield, to whom he bears a close resemblance, being rangy, smooth, brown in color, and furnished with a set of good legs. John Gardhouse also showed a pair of mares, four and five years old. These, too, were by Pride of Hatfield, but they had worked hard and therefore were not fitted. A mare, Victoria, by Darnley, foaled in 1899, and bred and owned by J. M. Gardhouse, was the first choice of the three. She is black in color, well grown, round ribbed, and a good filly generally.

HACKNEYS.

The mature stallion class in this breed dwindled to a single horse this year, but had there been a larger entry the same member of the breed would have likely worn away the red ribbon. Robert Beith's Squire Rickell was the representative, in his usual first-rate form. This son of Cadet retains his remarkable quality and dash of action in a high degree, although he is taxed with considerable stud duties. He had keen competition for sweepstake honors, both for the English medal and for the Canadian Hackney Society's prize, but he defeated them all, and got no more than he deserved. A newcomer made his appearance in three-year-olds, a recently-imported son of Lambton Connaught, brought out by Bawden & McDonell. He is a chestnut, known as Connaught Heir, and was bred by the Earl of Durham. His rivals were Mr. Crossley's sensational Rosseau Royal Oak, bred from Royal Standard and Lady Cocking, and Mr. Sorby's Guelph Performer, from Square Shot and Miss Baker. They were indeed a strong trio in quality and action, and the judges, Messrs. R. Gibson and Alex. Galbraith, spent considerable time in deciding as to their relative positions. The newcomer was considerably the heavier, lacked nothing in quality, and carried himself high, rapid and gracefully. The Crossley colt is quality to a fault, and carried the audience with his airy action, but he could not get above 2nd place, this being his first defeat, although he has shown many times. Mr. Sorby's colt is nearer the cob type than either of his rivals, and is very catchy in his manner.

There was a good class of mares, seven in number, made up of four three-year-olds and three two-year-olds, and with the exception of Mr. Crossley's Countess Josephine, from Fireworks and Althorpe Duchess, and Mr. R. Davies' Lady Minto, from Barthorpe Performer and Lady Lynn, Mr. Beith supplied the lot, and they were all bred by himself. They were indeed a beautiful lot, bred in the purple, well grown, schooled and brought out. Beith's Hermia, by Royal Standard, and out of Cherry Ripe, possesses her sire's color, form and ways, which are hard to fault. She goes high, with an ease, dash and courage that compels one to wish to drive her. She won 1st and was followed by the younger daughter of Squire Rickell and Mora's Queen, a chestnut much like her sire in form; in fact, this horse seems to stamp them all alike; and then she is half-sister to Jessica and the late Banquo, so she has a right to be good. Mr. Crossley's Countess Josephine is a particularly sweet filly, two years old, inclining to the cobby type, and quite a gem. She won 3rd and afterwards the English medal for best mare or filly from imported sire and dam, both registered in the Hackney Horse Society Studbook of Great Britain.

Mares and geldings by Hackney sires were shown in harness. This class called for high-steppers, not less than 15 hands high. Six entries were all that counted, and a dashing lot they were, all fitted

and schooled and shown to near the limit of their capacity. South Africa, the daughter of Jubilee Chief, that was so successfully shown last year by Messrs. Crow & Murray, was a prominent figure. She is now owned by Mr. Geo. H. Gooderham, who has kept her up to form and won with her on this occasion. A handsome gray mare, sired by The Shah, and owned by S. B. Fuller, was next in place, and she was followed by Doan Bros.' Defender, by Lightning, and H. N. Crossley's Rosseau Jewel, by Rosseau Performer.

THOROUGHBREDS.

More interest than usual centered around this breed, of which there were three classes this year. They were judged by John Hanning, of New York, and Chas. McEachren, V. S., Montreal. There were four competitors in the open class, and all useful horses, from the saddle point of view. Dr. Andrew Smith, Toronto, admires a Thoroughbred, and usually has a good one. This year he showed the winner, Kapanga, by Spendthrift, a breedy chestnut of considerable substance. His conformation is well represented in his illustration in last issue. While he is of the race-horse type and highly thought of from that standpoint, he fills the bill well to sire remounts, as he stood for a long time a tie with the winner for that purpose in competition for King Edward VII.'s prize. William Hendrie, Hamilton, showed Gold Car, by Goldfinch, a right good stamp, 16.1 hands and not leggy. He won 2nd, followed by a get of Uncle Jesse, owned by Edmund Bristol, Toronto. He is called Knight of Sherwood, stands 16 hands, and is full of quality.

mixed pedigree, from a trotting sire, but a good individual, of dashing action, shown by Crow & Murray, Toronto, won 1st, defeating McCartney's German Coach, Graf Bremer, that has been the victor for several years. John Rogers, of Thornhill, won 3rd on General Watson, by Sim Watson. He is a big horse, 16.1 hands, of good parts, but he could not move with his competitors. J. T. Reid, Derry West, and Albert Hewson, Grahamsville, each showed a bay 3-year-old, and both called Lord Roberts. Reid won the award, and stood reserve to Performer, the aged victor, for gold medal for best stallion any age.

STANDARD-BRED ROADSTERS.

There were five mature and one 3-year-old stallion shown. In the former class there was a great variety of form and action. Judging them on the line for conformation and action, the very handsome and nice-moving Pavonia, by Jersey Wilkes, exhibited by Heslop & Williamson, was the favorite outside the ring. He stands 15.3 hands, is round as an apple, carries a good depth of body, and is a typical roadster sire. His strongest rivals were Dalton McCarthy, by Bryson, and owned by McLaren Bros., Winnipeg; and Altoneer, by Sphinx, owned by Fisher & Button, Ringwood. Neither of these was in high flesh, but in good stud form. Dalton McCarthy was in racing form, and is fitting for a number of important stakes the coming season. As a race-horse he was considered the choice, and consequently won 1st award, the well-known Altoneer 2nd, and Pavonia 3rd. Jim Bryson, by Bryson, was the colt shown. He is a good mover and quite like his paternal brother, Dalton McCarthy, to whom he came 2nd in the sweepstakes contest.

HORSES IN HARNESS.

Horses in heavy leather are shown singly in three sizes, viz., over 14.1 hands and not exceeding 15.1, over 15.1 and not exceeding 15.3, and those exceeding 15.3 hands high. Pairs are classed 15.2 hands and under, and over 15.2 hands. There is also a class for tandems and four-in-hands. In all of these competitions, the Hackney form and action predominated, and the more of it the horses possessed, other things being equal, the better were their chances of winning. Education, too, was an important factor, so that it was of little use to show a green horse, however good he may be. Mr. G. H. Gooderham, Toronto, was a successful competitor in several sections, with horses formerly owned by Messrs. Crow & Murray. The mare, South Africa, by Jubilee Chief, that won numerous good awards last year on both sides of the line, and again won this year in Boston, was a hard rival to butt against. She is now owned by Mr. Gooderham, who also showed Always Ready and Just Ready, a plain pair on the halter, but extravagant actors under the reins. Mr. Crossley's Hackney, Rosseau Jewel, did well in the small class. Yeager & Curzon, Simcoe, also Charles Head, Guelph, had forward some good things, that won in fierce competition.

SADDLE HORSES.

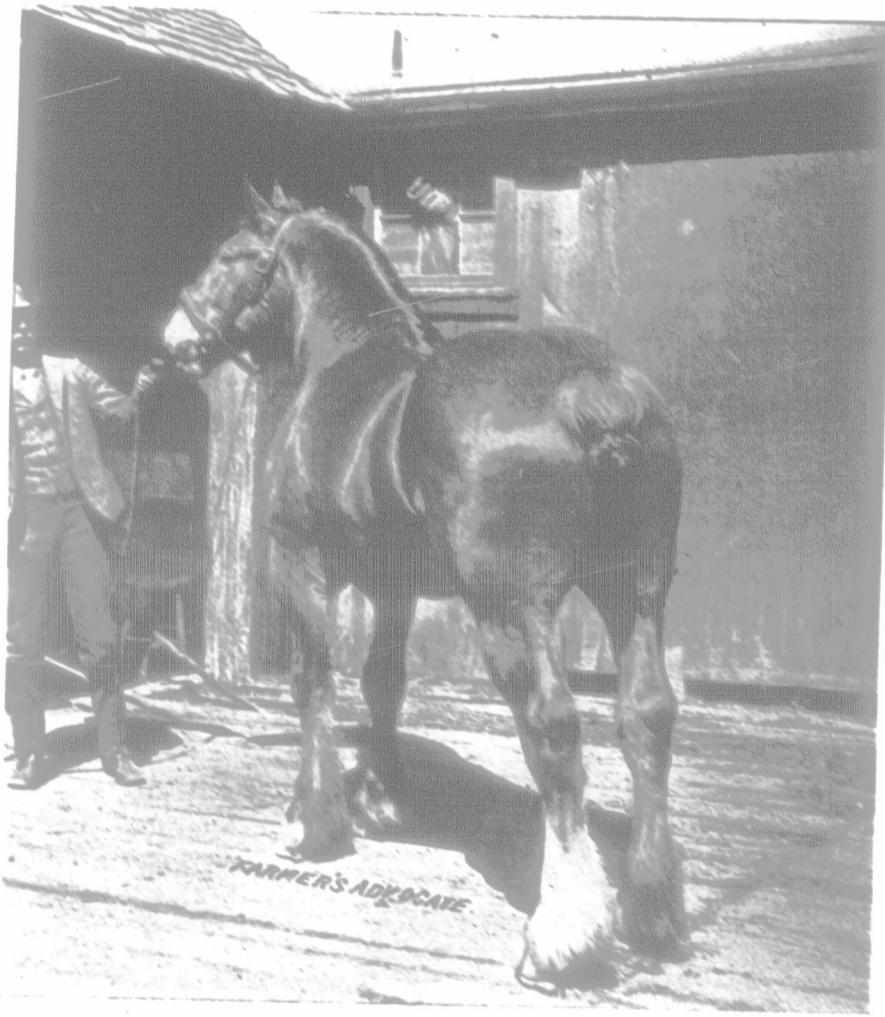
The various classes of saddle horses were heavy, running up to 29 entries in the section for combined saddle and harness, and 28 for mare or gelding over 15.2 hands and up to carrying 100 pounds. They were judged by quality, manners, paces, conformation, and ability to carry the weight in their respective classes. As might be expected, the Thoroughbred type predominated, and the finer, the better, when accompanied with substance. The dual-purpose class was an exceptionally good one, there being about a score of good saddle horses that would hitch up well and show a deal of style. The 1st award was won by Queen Bertha, a fine gray mare, 16 hands high, owned by George Pepper. Adam Beck was a conspicuous winner in saddle horses, and L. Meredith won some good victories.

HUNTERS AND JUMPERS.

Hunters were divided into qualified and green, and again into heavyweight and lightweight, the former up to carrying 180 pounds, and the latter up to 150. Qualified hunters must have been fairly and regularly hunted with a recognized pack of hounds for more than one season, and a green hunter for one season only. The competitions were fairly keen, and the animals in hard flesh and good jumping form. They were, as a rule, a well-bred lot, of the Thoroughbred type. Adam Beck and Geo. Pepper were the largest contributors, but good horses were shown by other exhibitors. The exhibits of the former gentleman were, as a rule, better schooled to clear the jumps, and in other ways obey the commands of their riders. Jumpers were open to all, and ran over a score of entries in the first class. Performances over fences was the test, and, as a rule, good-looking animals won, the winners in several cases being identical with the best hunters. This is an interesting contest to witness, demanding trained riders as well as schooled, well-bred horses. Many a horse refused his jumps, and many hurdles were turned over and broken, but seldom did a rider leave his seat.

ROADSTERS.

There were three classes for roadsters: those in single harness, under 15.3 hands, and 15.3 and over,



LIPTON [2950] (10681).

Three-year-old Clydesdale stallion, son of Sir Everard [3383], and brother of the famous Baron's Pride [9122]. Fourth prize at Military Tournament and Horse Show, 1901. Imported by Bawden & McDonell, Exeter, Ont.

OWNED BY JAS. HENDERSON, BELTON, ONT.

A. Frank & Son's (The Grange/Terremont, by Dandie Dinmont, a race-horse type, was the fourth entry.

Stallions qualified to improve the breed of saddle horses and hunters made up a class largely of new blood, including three horses of Lt.-Col. Dent's selection in England as suitable sires of army remounts. They are termed Thoroughbred-Hunter stallions, and, from their form, should fill that purpose well. They were imported and exhibited by the Telfer & Climie Co., Montreal. The winner in the class was Ballymore, bred in Ireland, and sired by Hollywood. He is bay in color, with white on face, stands almost 16 hands, is powerfully built, and very breedy. The 3rd and 4th awards went to this firm on Rotherval and Halifax, bred in England; the 17-year-old Billetto, exhibited by W. Barbour, Toronto, winning the 2nd award. This old horse is fresh and in fine form. He has many good sons and daughters to his credit in sections where he has traveled. What was formerly known as the Prince of Wales' prize, was this year designated King Edward VII.'s prize, and was for best Thoroughbred stallion any age. The winners in the two former classes met here, and for a long time it seemed a draw between them. After repeated close examinations and measuring with a line, it was decided that the newcomer, Ballymore, was entitled to the honor. While Kapanga is a chestnut and Ballymore a bay, they are very much alike in size, form of bone and body, and both well disposed and free of blemishes.

CARRIAGE OR COACH.

Style and action were conspicuous in this class rather than uniformity of breeding. A horse of

and for pairs. They were not necessarily Standard-bred, although most of the best entries were recordable. A comparison of the number of entries in the various sections indicates that good small ones are more common than good large ones. In the first case, a dozen entries were forward, all good smart road horses, suitable for light conveyances on good roads. As a rule, they were a good-looking lot, showing fine quality. Six entries competed in the bigger class, and three in pairs. To a practical mind, it is a real treat to see at a horse show a lot of good-looking horses that make time first and display afterwards, having long, flowing, well-carried tails, and harnessed for their work rather than display. These features characterized the roadster class, as compared with the other harnessed classes, that are calculated to attract admiration by extravagant rather than utility action.

There were two well-filled classes of ponies, 12.2 hands and under, and between 12.2 hands and 14.1. These were the blocky, strong-boned Shetlands, the finer and fleetier Welsh ponies, and the produce of these from Hackney sires; and it was the last of these, from Welsh mares, that fill the eye of a horsey boy.

CAVALRY HORSES.

The Governor-General gave a first prize of \$30 and a cup or medal worth \$25, and the Dominion Minister of Agriculture gave a second prize of \$20 for the best 4-year-old gelding or mare for riding or cavalry purposes, not less than 15 hands and not over 15.3, and sired by an approved Thoroughbred stallion. This seasonable offering was the object of considerable interest, there being 14 competitors for the regal prize. The winning horse, owned by Mr. L. Meredith, London, is a bay gelding, named Cremorne, 15.2½ hands high, and sired by Randalagh, Scottie, a chestnut gelding, 15.2, from Gold Fox and a Whistle Jacket mare, and owned by R. Porteous, Simcoe, won 2nd; and a chestnut mare, Lady Athol, 15.3, by Gold Fox, shown by Stewart, Craig & Galloway, Guelph, won third. These horses were bred, stout-backed, good-legged specimens of the Thoroughbred type.

"The Holstein Interest in Canada."

Kindly allow me a short space for reply to an editorial in the April number of the *Holstein-Friesian Register*, under the above heading. Commenting on the remarks made at our last annual meeting by our worthy President, the editor has gone entirely astray when he came to the conclusion that the Canadian Holstein breeders most keenly felt the disadvantage of maintaining their own herdbook. I can assure him that Canadian breeders never regretted the step they have taken, and that the establishment of our own registry has done more for the interest of the breed in the few years of its existence than the Americans would have done for us in twenty years. Our President only expressed his indignation at the *small, mean and unbrotherly* stand the Americans are showing towards us fellow-breeders. Canadians are not clamoring for any undue advantage or favors, but just what is fair between neighbors. (All we ask is that they recognize our registration, as we do theirs.) This, the editor says, is out of the question, as our Association was not on a parity with the American. Pray, will the editor enlighten us wherein it is not! Our Association is incorporated under a government charter: our standard of perfection, our by-laws and system of registration are almost identical with theirs—the standard of our record of merit is placed even higher than their own. It is true that our registrations numerically are not one-tenth as great as theirs. But what of that! Has not the worthy editor got their own herdbooks? How do they compare with ours? It took them years to get out their first few volumes, and then they were much smaller than ours are, of which we publish one nearly every year. We are a different nation, under different laws and circumstances, and are quite capable of running our affairs without American aid. What drove us away from them was simply the fact that their affairs were run for the benefit and in the interest of a few large and selfish breeders (which also led to the establishment of a rival herdbook association in their own country). Their membership and registration fees were placed so high that the beginner and smaller breeder (the very man whom they had sold their stock to at enormous prices) was practically shut out from either, so that they could have the entire field to themselves. They seemed to want to own the whole world and a patch to plant potatoes on besides, as the saying is, and it now appears that Canada should be this potato patch. We charge a small membership and registration fee, which is enough to manage our affairs and still leave a surplus to be spent yearly in the interest of the breed, in prizes at the different dairy tests; whereas, they charge high fees, put the money (which they don't spend in salaries) into the bank, and when such chances as the Columbian World's Fair and Pan American come to demonstrate the superiority of our breed of cattle, they don't let a jangling word come, and finally drop out of it. If the editor of the *Holstein-Friesian Register* lives up to the day that the Canadian Association has set on foot, we will have to give a greater prize than is allotted to the American.

Various Breeds of Cattle at the Union Stock Yards, Chicago.

BY D. E. SMITH.

Time has lavishly scattered, in this immense Western country, a vast variety of cattle. There can be seen among the herds that graze on hillside, plain and valley, representatives of all the best-known breeds of cattle in the world. These, from time to time, find their way to the Chicago market, and are quickly bought up. Besides grades of most of the breeds and natives, there are the following breeds found on the market almost every week: Shorthorns, Herefords, Polled Angus, Holsteins, Jerseys, Guernseys, Galloways, Ayrshires, Devons, etc., etc. These all are used for beef purposes, although milkers, springers, stockers and feeders are also sold here. To the casual observer, there is a great difference in the cattle that come from the different States, and the production of beef animals is a sure indication of the progress and prosperity of the State or country from which they come. First, let us look at the cattle that come from Tennessee. They are small and thin-fleshed, as a rule; in fact, all Southern cattle seem to be somewhat smaller than in the North. These are mostly grade Jerseys, with a fair percentage of low-bred grade Shorthorns, and an occasional Holstein. The class of cows that find their way here are thin to medium fleshed, that weigh from 700 to 900 pounds. Many of them appear to be old, broken-down cows, that are no longer of any use. The cattlemen down there seem quite conservative in their breeding, and lack enterprise, so that but little improvement has been noticed in recent years.

Everybody has heard a great deal about the Texas steer. The old-fashioned long horned steer is rapidly becoming extinct. The enterprising Texan, while he admired the long horns and odd shape, did not see much money in him, so he soon introduced pure-bred sires, and, as a result, there has been a marked improvement in the class of cattle that come from there now. Quality is the watchword that is sent from one end of Texas to the other. In the selection of sires, a preference has been given to the Herefords, as they seem to meet the requirements of that vast country better than any other breed. They are strongly prepotent, and impress upon their offspring their own color and individuality, so that a great change is noticeable. To-day (April 24th), Texas steers brought in Chicago \$5.40 a hundred, live weight, which goes to show that they possess quality, and were fat. The Herefords adapt themselves best to that warm climate, and keep in better condition than any breed yet tried there. Many of these grade Herefords are sold as yearlings, and are sent North to be fattened in Montana or the Dakotas, and from there come to the Chicago market. Besides these, there is a good class of cattle raised on the ranges in Montana and the Dakotas, but they are wild and do not get so fat as those that have been in the feed lot. From Wisconsin and Michigan come a class of cattle that are largely of the dairy type, and, as a result, do not bring a high price. Many cows come from these States which have been used for dairying and then fed for a short time and sold for beef. From Iowa and Illinois come the choice cattle of the West. They have been bred for beef for years, and many of them are of excellent quality. Besides this, these States are in the middle of the corn belt, and an immense quantity of corn is grown and fed. All the best steers get corn, and many are finished with the addition of oil cake. The prevailing breeds are Shorthorns, Herefords, and Polled Angus, but Shorthorns far outnumber all the other breeds together, and they are evidently holding their own. They are distinctly a beef breed, but they also combine in themselves more general qualities and are filling the requirements of these States better than any other breed, although they have strong competitors in the Polled Angus and Herefords. One of the choicest loads of cattle that ever came to the Chicago market was a cross between the Shorthorn and Polled Angus. The dams were high-grade Shorthorn cows, and the sire was a pure-bred Polled Angus bull. The result was most satisfactory, as the cattle were black and without horns, and of superior quality. The breeder of these cattle said they took on flesh rapidly and evenly and were a very desirable kind of steer in every respect. I also saw another choice load from a cross between the Shorthorn and Hereford. These also were of excellent quality and were much admired by all who saw them. From observation and from what I learn from up-to-date breeders, I can safely say that excellent results are obtained from the first cross of high-bred grades by a pure-bred sire of another breed; in fact, many go so far as to say that such a cross is superior to the pure-bred of either breed, and from what I see, I can endorse that opinion. It goes to show what a pure-bred sire will produce on high-grades, and, reasoning along the same line, it indicates what a pure-bred bull will produce, even if crossed on an ordinary grade. It may not be out of place to make some remarks on the three leading beef breeds as we find them here:

Shorthorn steers of good quality, and fat, are always in demand on the Chicago market. The buyers consider them an excellent breed, and when they hang up on the hooks in the packing-houses they look very well, and the beef is always salable. The feeders consider them excellent, and the best quality meet with ready sale at satisfactory prices. They make an excellent cross on the grades, and arrive all through this country, as they impress

their beef characteristics on their offspring. The Herefords are also a good beef breed. They excel in the South and out to pasture, but there is a tendency to bunching the fat, and the carcass has not so smooth and fine an appearance as is desired, and, as a rule, they do not, when slaughtered, produce so much beef to the carcass as the other two breeds.

The Polled Angus, for beef alone, are very good. The carcass hangs up white and smooth, and the appearance is certainly in their favor. They fatten well, but there is a tendency to wildness in many of them. They must be ripe to give the best results. Buyers like them very well.

There are some lessons which we can learn from what we see here. To get the best results, corn must be fed freely and the cattle must be made ripe. Herefords should be sent to market as yearlings, for then they do not become bunched. All should be put on fall feed for a long period in order to get the best results. Exercise and plenty of outdoor air conduce to firmness of flesh. Oil cake added to the corn is a great help in finishing a steer properly. It is almost impossible to finish a steer on grass alone.

A Dairy School Education.

BY AN EX-STUDENT.

Is a dairy-school education necessary for the production of a first class dairyman? In answering this question myself, I would certainly say "Yes" with emphasis, for I am strongly of the opinion that a dairy-school education is not only necessary, but that it should be made a compulsory requirement of all cheese and butter makers.

Many of our makers who have never availed themselves of the advantages to be gained from attending a dairy school are very unwilling to admit that knowledge of the trade can in any way be increased by a three-months' course in some of our dairy colleges. Undoubtedly, some of these same men are good makers, and have probably been successful in manufacturing a good article for a number of years. They have the practical part of the trade mastered almost to perfection, but it must be remembered that in cheesemaking practice alone does not make perfect. Practice is all right, and a man must have it before he can manufacture cheese, but theory is of no less importance. In these days of advancement in every line, we must know all there is to be known about our trades or occupations if we want to keep abreast with the times. A cheesemaker should know the "whys" and the "wherefores" of his trade, or he cannot be a first-class cheesemaker. He knows that certain results will follow if he pursues a certain course, but he also should know why these results follow this course of action.

To my mind, the knowledge obtained in the bacteriological and milk-testing departments alone will repay the time and cost of attending a dairy school. A cheesemaker is not a cheesemaker at all unless he understands the action of bacteria. The art of cheesemaking is simply knowing how to control the different forms of germ life which you have at your command; that is, to retard the growth of the undesirable, and to encourage that of the desirable to the extent to which they are wanted. Cheesemaking is but a side issue of bacteriology, and a knowledge of the one is absolutely essential to the thorough mastery of the other.

In the milk-testing department a knowledge is obtained which cannot otherwise be procured. The term milk-testing is generally misunderstood. When you speak of this process, most people understand that you are referring to operating the Babcock tester to determine the fat content of milk. This is certainly true, but it is only partly true. Milk-testing in all its branches has a much wider meaning. We have adulterations to contend with, and these require a great deal of extra knowledge to that required to operate the Babcock tester. A thorough drill is given in all the various uses of the lactometer, and also the oil test. Milk testing is not so simple as most people imagine. In fact, most students find it the most difficult subject they have to face.

Successful Calf Feeding.

Success in raising calves by hand feeding may be summarized in a few lines. The calf may be taken away from the cow a few hours after birth, or left with her till her milk is fit for use. The calf, in any case, should have a reasonable quantity of the first milk of the cow, and it should have a small quantity (not more than one quart at first) of its mother's whole milk, warm and fresh from the cow, three times daily till it is two weeks old, increasing the amount gradually to two quarts three times a day at that age, when one-half may be skimmed milk, and the quantity may from this time be gradually increased till at four weeks old skim milk may form the whole ration, and four quarts twice a day be fed, and later six quarts at a time may be fed as the calf grows older, but always fed sweet and warm. To be absolutely safe, the buckets from which the calf drinks should be scalded after each feed, as decaying milk generates poison germs which are apt to set up the disease of diarrhea, which is one of the greatest difficulties in raising calves, and the principal causes of this are sour milk, cold milk, irregularity and over-feeding, or feeding meal mixed with the milk. Calves will learn to eat hay and dry meal at two to three weeks old, if a little is put in the mouth after feeding them milk. At four weeks old they will eat half a pound per day, and with the moderate amount of milk recommended above will grow and thrive from the start, and if kept in dry, clean quarters will almost certainly be exempt from scours or other setback.

Training a Collie.

The Scotch collie is well equipped by nature for his calling; his shaggy coat protects him from the cold storms on the mountains, and also from being scratched by the rough heather. His long bushy tail is used as a helm to steady and assist in sudden turns on the mountain-side. A bobtailed dog cannot stop and turn quickly on steep ground without whirling over.

In the north of Scotland, black with a white ring around the neck and a white breast is the favorite

Draft Horse Breeding.

I will try to give a few points on horse-breeding to show those who are unconcerned what the market is begging for, which is a draft horse with plenty of size, quality, and of a good color—bay, brown or black. I think there was never a time in history when the general breeder could raise colts with as much assurance of a fancy price as last season and the one approaching, if he is careful in making his selections and has a higher motive in view than just simply breeding to please some

clever fellow that happens to have a stallion. I think one of the greatest causes of common horses is that too many breeders' only object is to raise a colt, regardless of what its future will be, realizing that the breeding season is a very busy time for farmers, and thinking that they cannot afford to give a day or two in order that they might be able to find just such a sire as is producing the kind of stock the market is paying long prices for—and not until too late do they find out their mistake.

And now let us consider this important question and use our very best judgment in selecting sires this spring. If we do we shall surely reap a reward for our trouble, and in a short time will have an inducement for buyers to come to our homes. We will feel proud to show our stock, and we can truthfully say it well paid us even if it did cost a trip into another county. After we do raise good horses of the right type, we won't be satisfied

unless our names are on the list as successful horse-breeders. One of our greatest mistakes in horse-breeding, I think, is in not sticking to a certain type of horse. I am sure the cross breeding is one of our greatest errors. It does not make so much difference if of different breeds of similar type, but I think it does make a great difference when we go to crossing draft horses with roadsters, as the offspring is neither a drafter nor a roadster. This sort of breeding is a great source for the chunks that are flooding the market and causing a good many would-be

horsemen to think it does not pay to raise horses. I have in mind a successful horse-breeder that claims he made more money in breeding horses than in anything he ever undertook, for the amount invested, and says he owes his success largely to the selection of sires and always keeping his stock in show condition. He has quite frequently gone forty miles to a stallion, and has the last three years been going twenty miles, owing to the fact that he is unable to find his model horse any nearer. It would be wise for us who are not expert judges to pattern after this same breeder, breed good mares and take good care of the colts, especially the first year of their lives. Their future depends largely upon their care the first winter and never being neglected thereafter.

Good Stock Water Scheme.

Mr. J. W. Fagner, a progressive stock farmer, built a 1,000-barrel brick and cement reservoir, which was arched over like a cistern. Then he plowed and scraped the dirt up over it, making a mound perhaps a dozen feet high. The water is pumped in by windmill, and, no matter how cold the weather, is always at the proper temperature for watering stock. He has it piped to the hog house, cattle stable, and all the feed lots, and does away with the necessity of tank warming devices. It works like a charm, and Mr. Fagner says he does not see how he could get along without it.

Farm Siftings.

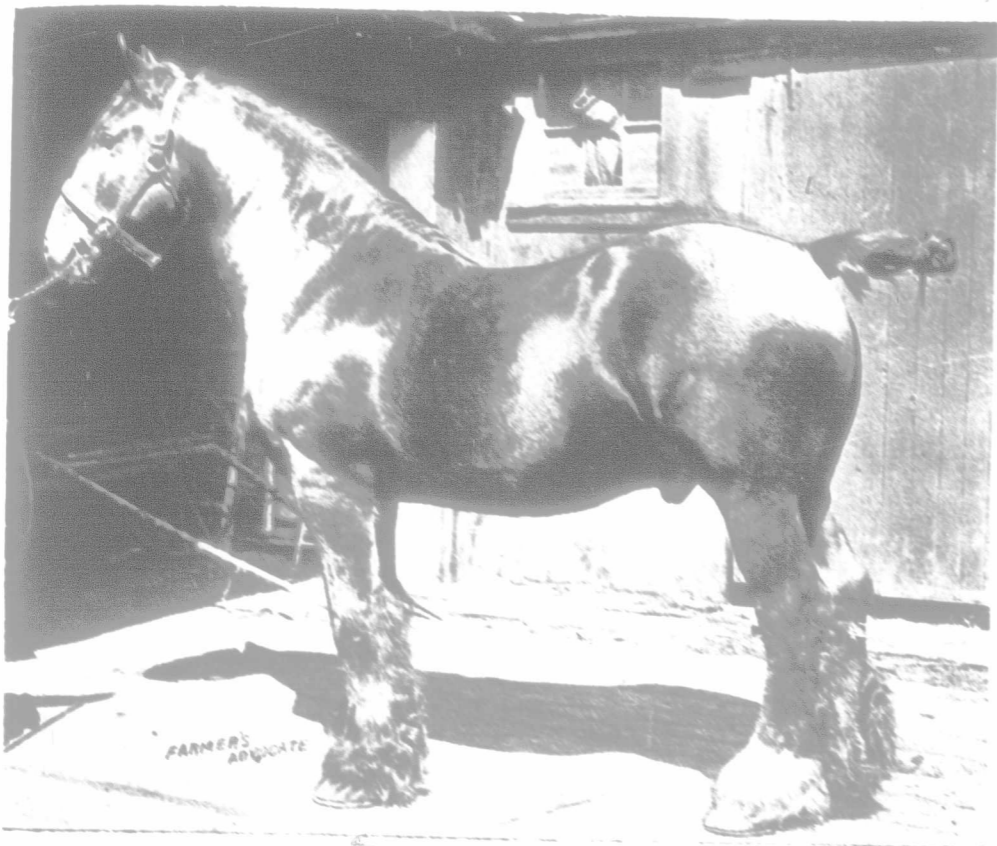
Building is one of the farmer's summer diversions; it may be a house, a barn, granary or other outbuildings. The farmhouse should be planned for comfort and convenience, care being taken that its arrangement is the handiest possible. Most people like a good cellar; the getting to that cellar is not always by the easiest route possible. In this connection, for the convenience of the housewife, have a dumb waiter (a miniature elevator from cellar to kitchen) installed, and thus save the endless running up and down steps, one of the hardest forms of work a woman has to do. The soft-water cistern should be connected by a pump with the kitchen sink. Hewing of wood and carrying of water is not woman's work.

The source of the summer's meat supply is often a serious one on the farm. Some patronize the butcher (not the most economical way from the farmer's standpoint), others belong to a beef-ring, while the majority depend on the cured pork they have stored away. Variety in diet tends to aid digestion, so that the following method of curing mutton hams might be tried and found beneficial:

The legs of mutton are first dressed into the required shape, and then have well rubbed into them a mixture of equal parts of salt and brown sugar; after this they are left to drain for about 24 hours. At the end of that time the hams are placed in pickle made by dissolving 2 lbs. each of common salt and bay salt, 6 ounces of saltpetre, 1 lb. of brown sugar, and 1 oz. of sal-prunella, all slowly boiled together in a gallon of water for about two hours. After cooling, this pickle is poured over the hams, which are allowed to remain immersed in it for a period of from 10 to 12 days. At the end of that time the hams are removed and hung up to dry, after which they are smoked in order to give them the requisite flavor. Mutton hams cured in this manner keep for a long time, and though somewhat troublesome to prepare, they are such a novelty that in many places they are considered well worth the trouble of curing.

To the farmer that milks cows for the sake of the money to be made from the work incurred, the project of Prof. Grisdale, Agriculturist at the Central Experimental Farm, Ottawa, is worth taking note of. Few realize as yet that their cows are only paying cents where they should pay dollars! It is time for a change, to use the hackneyed political expression, so get a spring balance, find out what each cow is doing, and thereby enable yourself to have a balance on the right side of your ledger.

Speaking of balances, brings up the question of farm bookkeeping. Many a one will not start to keep farm accounts because they are afraid it requires the training of an accountant. This is not so; a set of farm books can be kept by almost any farmer, that will show him at the end of each financial year how he stands with the world. Prof.



WILCOTT THUMPER (18432).

Shire stallion. Second prize at Military Tournament and Horse Show, 1901. IMPORTED AND OWNED BY MESSRS. RANDEN & McDONNELL, KANTER, ONT.

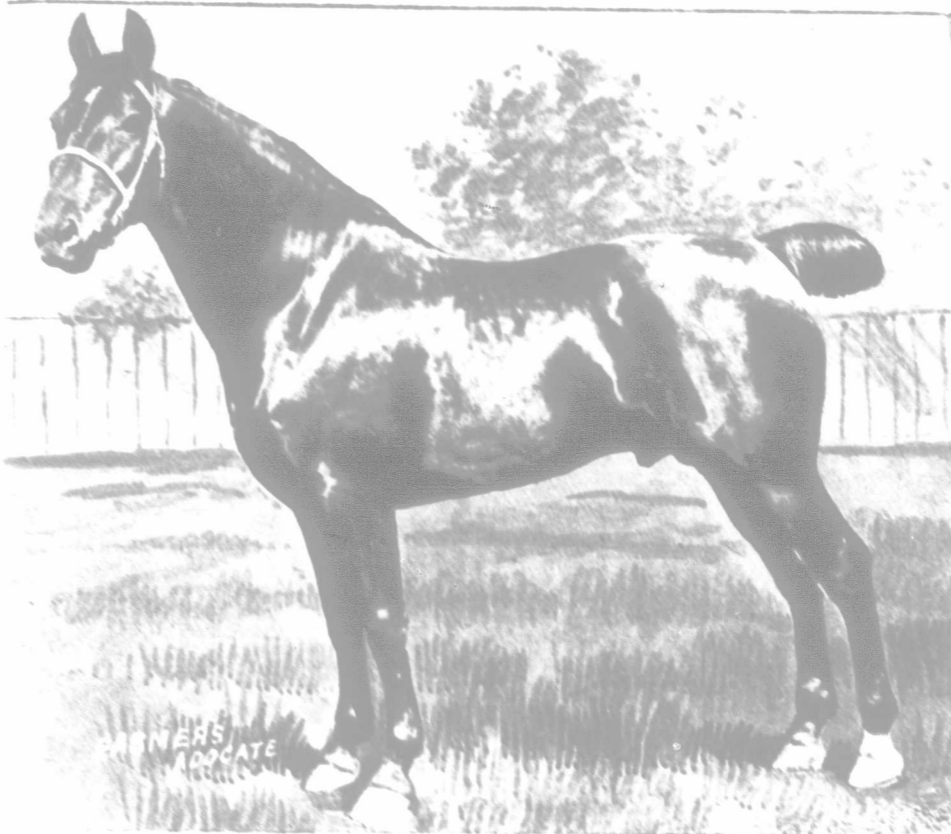
color: this on account of the ease with which they can be seen on the mountains, and the shepherd can tell when they are looking at him by the white breast. In Scotland the dog has to work often at a great distance from his master entirely by signs.

The training of a young collie is a very delicate undertaking, and few men are fitted for it. The trainer must be firm, kind, patient, persevering, and NEVER SCOLD. You may chastise a young dog severely and hold him till the fright has passed, then look kindly at him as you let him go, and he will love you; but if you scold him, you have lowered his dignity, and he will skulk away. NEVER to look you in the eye again with that loving, friendly, companionable, intelligent, trusting look of a noble shepherd dog.

When I was over in Scotland in 1896, I visited a cousin (Adam Riddell, of Greenleas), famous in that part of Scotland as a dog trainer. Though a man of 80 years, he had his dogs under fine control. If a sheep ran away, most dogs would try to stop it by turning close in front, but he trained his dog to run wide and away beyond the sheep quite a distance, then turn suddenly and drop, with his eyes fixed upon the sheep, and it was a rare thing for one to attempt to pass as long as the dog lay there.

I have had some very good dogs in this country, though trained principally for cattle and hogs. When railroads were scarce we had to drive our hogs quite a distance to market. I had a collie which I often sent even with strangers to help them drive their hogs to the station, a distance of ten miles. He was more help than three or four men. If a hog attempted to run back, he would catch it by the ear and swing it around two or three times, then, with its head turned in the right direction, he would let go and drop behind it; if it went right, all was well, but if the hog still persisted, he would repeat the operation until he conquered, without ever losing his temper. One day a drove of hogs was driven into town, among which was a large Berkshire boar so fierce that he drove every team off the road which he met. The boar seemed to fear neither man nor beast. His owner wished to rope him, but how to catch him was the question. Some proposed turning two bulldogs out to catch him, but the owners said he would kill them. A neighbor said my sheep dog would hold him. The crowd jeered and offered to bet money that no dog could handle him, but he said: "Get your rope ready and I will show you." Then, calling my dog up, he said: "Shep, watch him." He caught the boar by the ear as the savage boar gave a terrible side stroke with his tusks, expecting to rip the dog open. The movement only threw Shep over his back behind the shoulder, where he sat with the boar's head twisted around and his nose up in the air, perfectly helpless. "Now rope him and he is safe," came the order. Then went up such a cheer for old "Shep" as was never heard on that square before or since.

A man almost gets a fellow feeling for a faithful shepherd dog. H. H. Oliver, in *Live Stock World*.



SQUIRE RICKELL 71.

Hackney stallion, by Cadet. First prize and sweepstakes at Military Tournament and Horse Show, 1901.

OWNED BY R. BETH, BOWMANVILLE, ONT.

Reynolds, of the O. A. C., Guelph, had a very suitable system of farm bookkeeping, so I am told. Wm. Rennie, in "Successful Farming," also outlines a system. Give farm bookkeeping a fair trial and you will always keep books afterwards.

Good health and farm life used to be considered as partners, yet, in this country at least, we find the

reverse is often the case. The reason—too much work, some will say. Oh, no! Not as a general rule. More cogent reasons are, lack of variety in the diet, too hurried meals, poorly-ventilated sleeping apartments, bad drinking-water, neglect of nature's laws. In connection with the two latter, the farm privy needs calling attention too, both as to its care and location. Every summer, in Manitoba, typhoid fever claims its victims. Why? Because the wells are in many cases contaminated by seepage from privies or other excrement-holding places. The germ of typhoid is passed out of the human body with the feces; consequently, contamination of the well water by fecal matter must not be allowed if the family is to be kept free from typhoid. In cities the water closet or privy is carefully looked after by the board of health; on the farm it is the most neglected of the necessary farm offices. The privy, if of the open vault variety—the worst form, by the way—should be at least one hundred feet from the well. If the open vault is used, it should be lined with cement, the contents should be frequently sprinkled with chloride of lime, and removed at frequent intervals. A better plan is to have a water-tight box constructed for the collection of the excreta, and dry earth or ashes thrown in the box at intervals, the box to be emptied *twice a month or oftener*. If a system of waterworks is in place at the farm, the disposal of sewage will be rendered less difficult.

The question of tree-planting is getting to be a little stale to you by this time, and yet one wants their place of abode homelike. Nothing will tend to give the desired homelike appearance to the farm—steadily equal to healthy evergreens, such as the native spruce. The details of planting, time, etc., can all be found in the columns of the *ADVOCATE*. The instructions given, if carefully followed, will bring success, because those instructions are given by experts.

My attention has been called to an editorial in the *Viridien Advance*, wherein a paragraph of a late Siftings is severely criticised, and in which I am told the stockmen are not the bulwark of agriculture. The writer of the editorial has evidently overlooked the articles from several of our best farmers and grain-growers which have been running in the *ADVOCATE*, who declare most emphatically that livestock husbandry is the basis of all successful agriculture. The optimism displayed with regard to the handling of a new fund, to be handled by the Government, is truly refreshing. The stamping of my assumption for the live-stock industry of the premier place in agriculture as *nonsense* is one of the best pieces of evidence I have yet come across of the pressing need for an agricultural college in the Province, if *only* to educate an editor as to what constitutes *farming*! It is well known by people who are informed that the localities raising and shipping out live stock are the ones in which debts are paid, and where merchants delight to sell goods. The grain system of farming means seven months work in the year, and five months idleness, a system bound to have degenerating effects on any class of people: the live-stock business is an all-year-round one, keeps up the fertility of the land, keeps ready cash in the farmers' pocket, prevents him from being *altogether* squelched by a hail-storm, and keeps our tables well supplied with a variety of diet, from beef to butter. The idea of charity being dispensed by *villagers* to real farmers is as ludicrous as it is nonsensical. I have not championed any hail-insurance company yet: still, see no reason why a *properly-organized* company cannot attend to hail insurance with results satisfactory to everybody.

INTER PRIMOS.

A Hint from Abroad.

The *Scottish Farmer*, commenting on the evidence recently given by Prof. Jas. W. Robertson, Agricultural Commissioner, before the Parliamentary Committee on Agriculture, at Ottawa, draws lessons for the British dairymen, pointing out that the latter, owing to alleged shortcomings of Canadian produce, have now an opportunity of which good use can be made. Among the points to which attention is called is first in regard to butter, that there has been a cessation of improvement in the equipment of Canadian factories necessary to turning out increased quantities of the finest product, and secondly, that there has been a slackening off in regard to the quality of cheese arriving in England from Canada. Special attention is called to deficiencies in boxing and in regard to the ventilation of cars and steamships. We learn also that in several localities, owing to the brisk demand and good prices prevailing last year, factorymen and makers became less strict in regard to the character of the milk received, and at a number of annual meetings it was freely stated that patrons were to have practically a free hand this season in feeding turnips, a practice which had been systematically fought down for years past and which was thought to have been stamped out. Last fall we heard of cases where both turnips and tops were hauled out by great piles for the cows to consume without stint. Thoughtful men in the dairy business predict that this "free-handing" bodes ill for the future and the reference to the *Scottish Farmer* should be a sufficient warning to the Canadian dairyman, instead of slackening his vigilance, to redouble it, by the adoption of the most improved methods of management all along the line, from the farm and to the dairy company.

The Farm Separator in Home and Creamery Buttermaking.

To the Editor FARMER'S ADVOCATE:

SIR, If a farmer has ten cows, and is using the old-fashioned milk pans, and his herd averages three pounds of butter per one hundred pounds of milk, it is safe to assume that with any of the standard makes of cream separators his yield would be increased by about one-quarter or more. The same thing is true regarding the deep-setting system. The gain by deep setting over the shallow pans is not so much in an increased yield as in quality of butter. In summer the deep-setting system will yield more butter, while in winter or in cool weather it is a debatable question as to whether the deep-setting will equal the shallow pans or not? Both these systems have had their day, however, and the question now is, not which system shall the farmer adopt, but, having decided to produce butter, will he patronize the nearest creamery, or, by the aid of a farm separator, manufacture his own product? It rests with the individual to decide this question. While many creameries give perfect satisfaction to their patrons, perhaps, on the whole, not more than one-half are satisfied. There can be no question about the ability of many farmers' wives to produce as good or even better butter than the average creamery. Their difficulty is not in producing, but in marketing their butter. They must find customers who appreciate a good article and are willing to pay for it. If they take their butter to the grocer and sell at current market prices, they accept less than they are entitled to. They can only hope to cater to the home market, as the shipper cannot procure enough butter of uniform good quality to make up a shipment. The patron of a creamery properly conducted stands in a much better position to secure a market than does the individual producer. But this advantage is to some extent counterbalanced by the cost of the service rendered by the creameryman. If you hire a man to do your work, you must pay him. That is only fair, provided the price is not too high. What, then, is a fair price? Where the creameryman pays for gathering the cream—three cents per pound is a fair price for making and marketing the butter. We have never known one to succeed at a less rate, and would feel disposed to make very frequent tests of our cream if sending to a creamery the owner of which professed to be working for less. Where the whole milk is gathered and separated at the creamery or at separating stations, the cost is considerably more, as the cream, being only one-eighth of the whole, eight-eighths have to be gathered and seven-eighths returned, which make fifteen times as much labor as to gather the cream only. Add to this the cost of keeping up a number of costly power separators and power and attention, especially where customers are few and far apart, and it puts this system practically out of the running, especially if charged with the difference in the value of milk skimmed and fed fresh from the cow, and that which has been drawn some miles to the separating station, heated and returned in bulk, making it impossible to feed in good condition and in proper season. It is a matter for regret that this system should have so many drawbacks. Many enterprising men have invested considerable sums in building and equipping factories for this system, and have been instrumental in educating our farmers to the necessity of adopting modern methods into what is fast becoming the most important branch of the farming industry. But the farm separator has come to stay. No amount of sympathy for the unfortunate factoryman will induce a farmer to lose a large percentage of the product of his dairy for long, and a little thought on the subject will soon convince him that he cannot patronize a milk-gathering creamery without loss.

The writer knows a farmer who asserts that by making and marketing his own butter he receives from forty to fifty per cent. more money from the product of his dairy than by patronizing one of the best-equipped milk-gathering creameries in Ontario—and he is a close figurer. The most sensible thing, then, is for the factoryman to make a virtue of necessity and accept the farmer's cream separated at home, and retain his custom. We leave our readers to decide for themselves as to what make of farm separators will best fill their requirements. There are several first-class separators on the market which should satisfy any farmer, and it is safe to give the "faker agent," who claims that he has the only "perfect machine," the go-by. The difference in the yield of butter from the various makes of standard separators is so slight that this item is of less importance than to get a machine that will fill the bill in other respects. The importance of a cream-gathering creamery is not less than the need of the farm separator, for by this means only can the best markets be reached. A uniformly first class article must be sent to the English market at a minimum of cost to the farmer to make dairying a complete success, and the farm separator and the cream-gathering creamery are the proper means to this end.

ECONOMIST.

NOTE. There can be no doubt as to the advantages to the farmer derived from mechanical cream separation, either for home buttermaking or for the creamery, as then he gets the full value of his dairy milk, as well as more and higher priced butter, and also saves a deal of labor over the use of pans for home dairying. The use of the separator is also commendable from the creameryman's standpoint, provided his is a cream-gathering creamery, but the operator of a separator creamery cannot readily be induced to accept separated cream from patrons, because it is sure to lack the uniformity of the cream separated by himself in the creamery, and lacking uniformity, the patroning is therefore less within his control, and the result is an uncertain quality of butter. We would welcome a discussion of this practical subject from a patron's as well as a creameryman's standpoint.—Ed. F. A.]

Springtime on the Farm.

What pleasure it is to live on a farm! There are so many things of interest surrounding the life of a woman on the farm, which our town and city sisters are lacking at this season. To be sure, there are privileges which they enjoy, of which we are deprived. There is one thing which, we believe, the city and country woman possesses in common—house-cleaning in spring. It is a grand revenge on pent-up dirt and cobwebs, to be able on some sunny day to open windows and doors, and turn all inside out. Men, occasionally, appear to object to the reign of the mop and the broom; but we put that all down as mere pretense on their part, for sure we are that if a spring passed by and they saw no sign of a "clearin' up time," there would be more grumbling, and with good cause.

What a difference between a breath of country air and city air in springtime! We will not attempt to describe or analyze the spring air of a city in the early dawn. But the country air in the early spring morning! When the housewife opens door or window and draws in a long, full breath, she feels that it brings her a new lease of life. It is filled with a mingling of odors of budding life in tree and plant. It wafts to her the sounds of bird and beast, and the music of the Canadian water band. Everything animate is preparing for a new year of busy, useful life, and she cannot resist the feeling that she is one member of a great whole, born to assist in doing her part to work out the great scheme of the universe. As she goes around during her day of homely duties, every now and then her eye or her ear catches some new proof of spring freshness and beauty. The songs of the birds beguile her into recollection of some long-forgotten song or hymn of her childhood. Ever and anon, perhaps, one of the children of the home rushes in with tidings of some discovery in flower or animal, or may be it is a treasure of last summer which they have found just uncovered from its blanket of snow, which to them is quite as interesting and valuable as the city child's expensive toy.

Mothers, do not grudge a little time and show of interest to the boy or girl when they bring to you some thing of nature to exhibit its wonder or beauty. Look at the streaks on that pretty stone brought from the creek or the snail shell—and take a few moments to tell them what you know of the soft wee thing who carries his house on his back. Take the beautiful anemone out of his hand, and show him the downy wrappings of the bud, which protects it as the baby is wrapped in its blanket. Tell your wee girlie where to find a "nice big ant hill," and let her go and lie in the sun beside it, and afterwards come and tell you what she saw there.

Oh, there are hundreds of things that foster a healthy, true idea of life in the country boy and girl, if only their parents will take a little pains to inculcate the love of them. Those very interests may save the children from drifting in after-life into impure thoughts and into wrong actions. Once imbue a child with a true love for nature and nature's works, and it is a rare exception that he loses it, and if his mind is filled and his thoughts are intent on the works and plans of the Great Creator, there will be no room for baser matter. The business men and the city housekeeper too can instruct their children along these lines, but it requires a greater effort; while to those who live in the country, the means are all around, and it is willful and almost criminal neglect if they refuse to take advantage of their surroundings for themselves and their children.

Assiniboia.

MRS. NEVILLE.

Clean Milking Important.

"One of the things 'worth doing well' is milking the cows. Why a cow ought to be milked clean every time is too old a story and has too many arguments to back it up to make a lecture necessary every time it is mentioned. But its importance can not be brought out too frequently. It looks like a little thing to some men to slight a cow because she is a "tegius" milker; and it may be more convenient to leave a quart of strippings in the udder than to put up with the side-stepping and tail swinging agitation of a "nervous critter"; but the owner of a good cow might better have a "hand" who will steal from him than one who doesn't milk the cows clean. He not only loses much of the richest milk, that is perhaps the least of the objections to such neglect—but the practice of leaving milk in the udder has a deteriorating influence on the capacity of the cow. The longer it goes on, the less milk she gives. And the small yield soon becomes chronic. *Jersey Bulletin*.

Rape as a Forage Crop.

It will pay every farmer who keeps sheep or hogs to sow a few acres of rape for pasture. There is no crop which can be more cheaply grown or that will produce more wholesome and fattening stock food. It requires but little labor, and can be successfully raised by any farmer who will give it a fair trial. It does not require rich land, though, of course, the richer the land the heavier the crop that may be

Give the Boys a Chance.

I would like to ask the farmers of this great Dominion, Are you doing your duty towards keeping your boys on the farm? Don't think because you never had a fine horse and carriage or a bicycle, that your boys must go without. Nay, if your boys are ever to enjoy life, is it not when they are young? They will grow old far too soon. I firmly believe the cause of most boys leaving the farm can be traced to the father. He is apt to think his boys should not spend money

for this thing or that. He never heard of such things when he was a boy. I knew a man who found considerable fault because his son paid twenty cents a week for laundry bills, when he himself spent twice the amount for tobacco. Then, too, I think fathers should consult their son's opinion, not only for seeing how correct his ideas are, but to sometimes follow them as well. For instance, there is a fine colt in the stable. A buyer comes along and offers a good price for it. You never gave it to Tom or Fred, but they have taken care of it, curried, fed, and broke it. Now, don't sell it without consulting them. They are good boys, and, perhaps, would never say a word of objection. But they have a love for that colt—you have not—and if you could hear them talk it over when they were alone, what would you hear. Tom says to Fred: "That colt ought to have been ours, and I always thought father intended it for us, though he never said so, and I think as little as he could have done would have been to give us twenty-five dollars each. I know he put it in the bank, and we will get it some day, but a fellow would feel better to have a little to call his own now." Fred vows he will, as soon as he is old enough, go where he can earn good wages. If Tom is foolish enough to stay home, he is not going to be. My idea of how a farmer should deal with his boys is this: He should consult their likes and dislikes. Early in life, when mere children, they usually form them. One will be very fond of horses, another may have a special liking for sheep or poultry. Encourage them all that lies in your power, for we all know if we are

Fathers, you are making a great mistake by not allowing your boys to handle money when young. A boy who grows to be twenty-one, having always had father do all the buying and selling, even to the clothes and shoes he wears, has been terribly wronged. No wonder, if left to fight life's battles alone, he fails. Don't have moneymaking your highest aim in life, sacrificing every other interest for the purpose of adding to your bank account. No one will think any more of you in this world, and, as you cannot take a cent with you, might you not better enjoy what God has given you, making those around you happy and contented?

R. F.

The Score Card in the Judging of Butter.

The use of the score card in the judging of butter seems to give satisfaction where used. In the hands of the expert it embodies the educational feature, as by reference to the score the maker gets a hint of the deficiencies in the article manufactured by him. The following is the form of score generally used, the possible points being 100:

Flavor	45
Grain	25
Color	15
Salt	10
Finish	5
Total	100

It will be noticed that 45 per cent. is allowed for flavor, consequently it behooves the maker to see that his product has the right one. Experts speak of the nutty flavor, a quality only to be obtained when cream is ripened properly by the maker. Such being the case, we see how important it is that the patron's cream should be in the best possible shape on arrival at the creamery. It is almost impossible for a buttermaker to manufacture a first-class article if the raw material—the cream—may have ripened before coming under his care. So important is flavor, that bacteriologists have devoted a great deal of time to identify germs responsible for good and bad flavors. Twenty-five per cent. is the maximum allowed for the grain. Nothing shows the manual dexterity of the maker more than the grain of the butter, shown by breaking off a piece, when the fracture shows flinty edges like a piece of broken steel. The grain shows, among other things, whether churning was continued long beyond the breaking point—that is, past the granular stage—and, also, as to whether the butter is overworked or not. If the trier is used, it should pull out smooth, not stringy or greasy, and should show just a bead of water on the back of the trier.

Fifteen points are allowed for color. The scoring may vary slightly with the judge and with the market demands. Faults such as a mottled or streaky appearance are due to overworking. Particles of curd or a mixture of different churnings will cause a heavy cut in points.

Ten points are allowed for salting, and here the quality of the salt tells the tale. Poor salt or too much salt means a lowering of the score. Only the



CONAUGHT HEIR 116

Hackney stallion, three years old. First prize at Military Tournament and Horse Show, 1901. Will stand at his own stable this season.

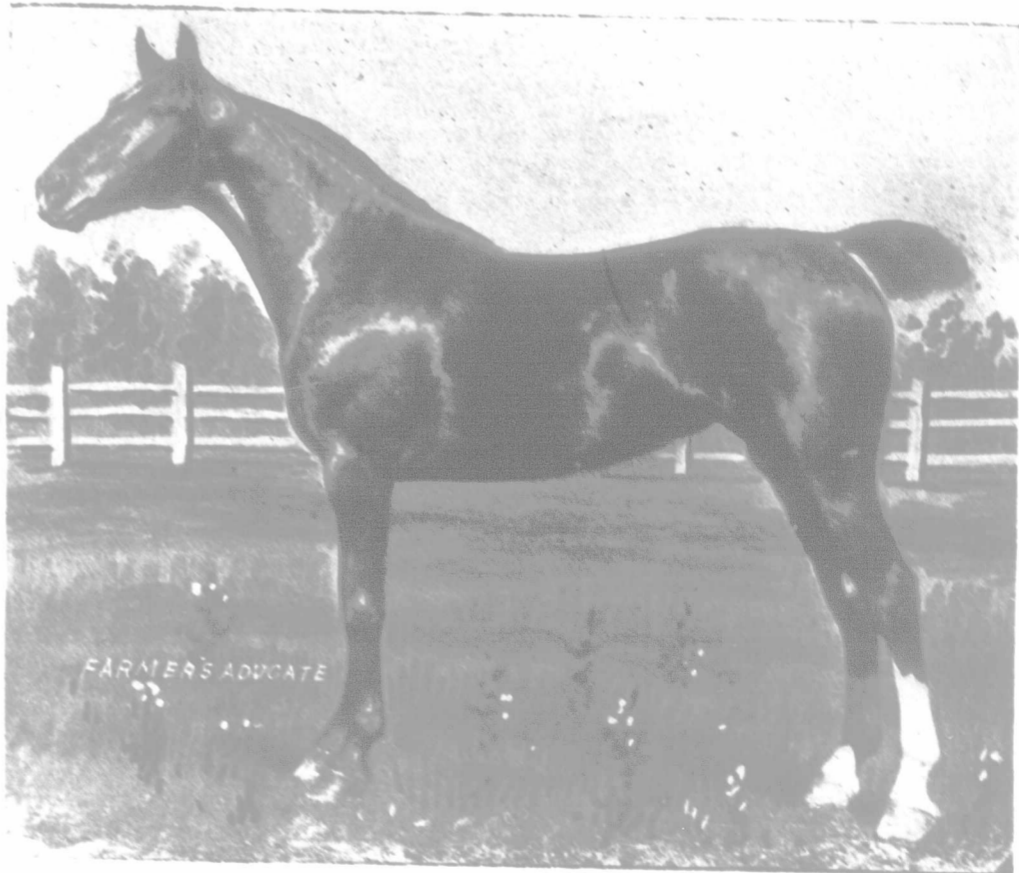
IMPORTED AND OWNED BY MESSRS. BAWDEN & McDONELL, EXETER, ONT.

grown. It is generally used for fall pasture for sheep and young cattle, and for this purpose a good time to sow it is about the last week in June. Sown at that time, it is generally well advanced and fit for pasturing by the middle of September. As pasture for hogs, it may be sown early in May and pastured while young, as it will spring up again when eaten down, and the leaves are most relished by hogs, while sheep prefer the more matured stalks, and fatten rapidly on them. An overturned sod makes a very good preparation for a rape crop, if it is rolled and harrowed immediately after plowing to make a fine seed-bed and retain the moisture in the land. Land plowed the previous fall and cultivated occasionally in the spring, without plowing, makes a good preparation. Even stubble ground, plowed in May or June, may do very well if it is in good heart and care be taken to roll and harrow immediately after plowing and to bring the land into a fine tilth. A fair crop may be grown on good clean land by sowing broadcast at the rate of 4 or 5 lbs. of seed per acre, and covering with a light harrow. But the best crops are grown by sowing in drills, or low ridges, 26 to 30 inches apart, with a turnip drill, 1 1/2 lbs. per acre, and cultivating with the horse hoe to clean the land and hasten the growth of the crop. The seed may be sown in drills on the level with the grass-seed attachment of the grain drill by closing part of the openings and sloping the rubber tubes into the shields of two or three of the hoes. The rows in this case will, with the ordinary drill, be only about 21 inches apart, which is rather too narrow to work a horse hoe to best advantage, but if worked narrow at first, to keep down weeds till the rape plants get high enough that they are not liable to be covered, the horse hoe may be worked wider later on and a good purpose served. There is no forage crop which will fatten lambs and sheep so fast as rape. It is well to give them the run of a grass field, as well as the rape, till they get used to the latter, and it is also wise to keep the sheep off the rape at first till the dew is off in the morning, or when it is wet from a rain, as they are liable to bloat from eating freely of rape when it is wet. But when they get used to it they may be safely kept on it continuously right up to winter, as the frost does not injure its feeding qualities.

Charlock Spraying.

Mr. E. B. Hadley's report on spraying for the destruction of charlock (wild mustard) on thirty-two farms in Wiltshire, carried out for the Agricultural Committee of the County Council in 1900, shows that the most successful results were obtained by spraying twice with 50 gallons per acre of a 2-per-cent solution of sulphate of copper (2 lbs. to 10 gallons of water). A single spraying in most cases killed at least three-fourths of the weed, and weak the rest; but the double spraying is declared to have destroyed all the charlock in several instances. Mr. Hadley thinks that 60 or 70 gallons per acre would be better than 50 gallons.

some day, but a fellow would feel better to have a little to call his own now." Fred vows he will, as soon as he is old enough, go where he can earn good wages. If Tom is foolish enough to stay home, he is not going to be. My idea of how a farmer should deal with his boys is this: He should consult their likes and dislikes. Early in life, when mere children, they usually form them. One will be very fond of horses, another may have a special liking for sheep or poultry. Encourage them all that lies in your power, for we all know if we are to make a success of anything we must have a liking for it. If it is poultry, see that he has a good warm house for his chickens—it need not be expensive. Give him a start in some pure-bred stock, whatever variety it may be. He will perhaps like to try more than one. Don't think this extravagant. Be thankful you have such a boy. It seems out of place to have to say the boy should have the profit derived from his flocks. Yet there are men, and I am sorry to say I know one, who lets his boy raise turkeys, pay for the feed he feeds them, then takes half his profit besides, the boy working hard on the farm at the time feeding and caring for his turkeys. Just such little mean dealing with your boys is what drives them to the city. They know what they earn there they can spend as they see fit. In traveling around, it is astonishing how many farmers one meets who want to hire good boys to work on the farm. These same men, many of them, have boys in the cities either in Canada or the States. Why are they there? I am confident in most cases the father is to blame. I believe that very few boys brought up on a farm would have left it for the city if the right inducement had been held out to them to remain. There is no occupation more varied than farming, and it is an excellent plan for each member of the family to have some special line of work outside the usual routine.



HERMIA 90

Hackney filly, three years old. First prize at Military Tournament and Horse Show, 1901.

BRED AND OWNED BY R. BRITH, BOWMANVILLE, ONT.

best dairy salt should be used, which should be sifted onto the butter, whether in the churn or on the worker. There should not be a rough, gritty feeling when a piece of butter is placed in the mouth.

While only five points are allowed for finish, the ambitious person will want them all. If tubs or crocks are used, fill flush with the top and have that top perfectly smooth. Artistic designs will lower the score. Use the best parchment paper (which

should weigh 50 lbs. to the team, and good tubs, and there will likely be no cut for finish. Prints should be put up in one-pound bricks and wrapped in moistened parchment paper. In order to keep the butter package clean, burlap should be used to wrap it, and thus avoid soiling of the box or tub.

The British Embargo on Canadian Cattle.

In the House of Commons, Ottawa, on May 9th, Lieut.-Col. Hughes, M. P., asked whether any steps had been taken to obtain permission from the Imperial authorities to land Canadian cattle at Belfast? There was no reason why, under existing regulations, that Canadian cattle should not be landed at Belfast and Dublin and slaughtered there, instead of Liverpool and then shipped back to Ireland.

Hon. Mr. Fisher, Minister of Agriculture, replied that the Imperial authorities had flatly refused to open up new ports for the importation of cattle. However, a strongly worded memorandum was on the way to England on the subject of the scheduling of Canadian cattle. He intended visiting England shortly, and would follow it up by the most strenuous representations against the injustice and unfairness of scheduling our cattle, the result of which is not only to affect our trade with Great Britain, but to cast an aspersion and almost a libel against Canadian cattle. He believed that it could be proved there has never been a case of contagious pleuro-pneumonia in Canada. The scheduling was done in 1882, upon the finding of English veterinarians that three head of cattle were affected, but Canadian veterinarians, after examining the lungs, declared it was not a contagious disease which afflicted the animals. Of the 80,000 cattle which had been sent to Great Britain since 1882, not a single case had been found, and if it had existed here, it could not possibly have failed to show itself. Upon the merits of the case, the Imperial authorities have not a leg to stand upon, and he proposed to present, in the strongest possible manner, the case of Canadian breeders against this injustice and the aspersion which it casts upon the health of our cattle.

Mr. Henderson (Halton) thought a golden opportunity was lost for obtaining the abrogation of the regulations scheduling our cattle when in 1897 a preference in our market was given to British manufactures. The farmers had suffered a loss of \$8,000,000 in this one item alone.

Mr. Jabel Robinson said the Canadian farmers suffered severe loss owing to their cattle being slaughtered immediately upon landing, and the Canadian Government will be to blame if they do not make a great effort now to have the regulation removed. The Government should also take steps to induce capitalists to start abattoirs in this country, and this would pay better than to send the live cattle across.

Our readers will await with great interest the result of the effort which the Minister of Agriculture is now making to have the embargo removed.

Enriching Separated Milk for Calf Feeding.

There has been much controversy of late regarding the merits and demerits of separated milk as a food for calves. Our own views on the question are well known. With all experienced breeders, we are of opinion that as a food for young calves the natural milk of the cow is still without a successful rival; but, while freely conceding the superiority of fresh milk for calf-feeding purposes, we are of opinion that much economy might be effected and more remunerative returns obtained if properly-enriched separated milk were judiciously employed as a substitute for whole milk.

In order to render it suitable for calf-feeding, separated milk must be adequately enriched by the addition of certain substances calculated to replace the butter-fat abstracted in the process. Of such fat substitutes a number have been employed from time to time with more or less success. The best known, perhaps, of all these substitutes is ordinary flaxseed or linseed meal boiled into a jelly. We have seen separated milk enriched by this substance given to calves with most excellent results in many parts of the country, and have never known any losses worth mention among calves so fed.

In the use of separated milk enriched in this way, it is of prime importance that the milk employed should be in as fresh and sweet a condition as possible. Almost all the trouble resulting from the use of separated milk as a food for calves is due to the fact that the milk is not given until perhaps 24 or 30 hours after separation. If fed fresh from the machine and enriched with the linseed, as already described, the results are such that the calves fed upon it will give practically as good results as those to which fresh cow milk is given.

Another butter-fat substitute which has been employed with much success in different parts of the kingdom during the past few years is cod liver oil. Experiments carried out at several of our agricultural schools, and also at several of our agricultural schools, have shown that excellent results can be obtained with this substance as a substitute for butter-fat. In using cod liver oil as a butter-fat substitute, it has to be exercised in conjunction with a certain quantity of linseed meal, and using the allowance of linseed meal gradually, the animal becomes accustomed to the use of the linseed meal. A teaspoonful of linseed meal should be given to begin with, and this should be increased to ten grains a day, and in a few days the quantity should be increased to a drachm.

given when the animals are from 2½ to 3 or 4 months of age. A careful watch should be at all times kept upon the animals, and the quantity of cod liver oil given so regulated that it is just sufficient to keep the bowels in free working order and not to scour or purge the animals.

Another point deserving of special attention is that only the best quality of oil should be employed. Cod liver oil of poor quality and low price will be found very disappointing in comparison with the better article, even though the price of the last-named may seem very high when viewed in the light of the figure for which the poor qualities can be obtained. We have seen very unsatisfactory results from the use of cod liver oils of cheap quality, and would warn our readers against the employment of such stuff when using the oil as a fat substitute in calf-feeding. *Farmers' Gazette.*

Bee Moths.

BY MORLEY PETTIE.

The bee moth, or wax moth, as it is more correctly called, is mentioned by Aristotle, Virgil, Columella and other ancient authors as one of the most formidable enemies of the honeybee. The apiarist of modern times does not need to consult the classics for knowledge of the work of this little pest. In the time of Swammerdam it was called the *bee-wool*. The egg from which the destructive larva is hatched is laid by a dull or ashy-gray colored moth, from five-eighths to six-eighths of an inch in length from the head to the tip of the closed



COOONS SPUN BY LARVÆ OF BEE MOTHS.

wings, and one and one-tenth to one and four-tenths inches from tip to tip of expanded wings. "The fore wings shut together flatly on the top of the back, slope steeply downwards at the sides, and are turned up at the ends somewhat like the tail of a fowl. The female is much larger than the male and much darker colored." They are seldom seen on the wing, except at dusk and on dark days, but may be observed lurking about the hives or stored combs, and if disturbed, "they open their wings a little and spring or glide swiftly away, so that it is very difficult to seize or hold them." It is unnecessary to recommend their destruction on all possible occasions.

The wax moth's favorite place for depositing eggs is on the comb of honeybees, but if prevented from entering the hives by the bees, she leaves them in crevices under the cover or about the entrance, so that, coming in contact with the bees, they adhere to their legs or bodies, are carried into the hive, and reach the combs in this way. The eggs are perfectly round and very small, and are deposited in little clusters. The larvae from those eggs which hatch on the outside of the hive endeavor to crawl



BEE MOTHS. Eggs (natural size, and magnified), larva, and moths.

or gnaw their way in and reach the goal attained by their more fortunate brothers. "As soon as hatched, the worm encloses itself in a case of white silk, which it spins around its body. At first it is like a mere thread, but gradually increases in size, and during its growth, feeds upon the cells around it." *Bevan.* Its food consists largely of beeswax, but it cannot subsist on that alone, and for this reason comb foundation or new combs containing no pollen are comparatively safe from its ravages. Its favorite combs are those containing pollen and the larval skins left by developing bees; i. e., combs which are in or have been taken from a brood chamber. As it feeds, it cuts through the comb a passage, or gallery, which it lines with a strong web of silk, reinforced by wax and its own excrement, making a tunnel almost impenetrable to the stings of the bees upon whose domains it is intruding. The larva is also able to advance or retreat very rapidly through this tunnel when attacked. While extending this gallery, it never exposes any part of its body except its head and neck, both of which are covered with stout hairs, or scales, impenetrable to the sting of a bee. Under favorable conditions, the larvae attain their maturity in about three weeks, stop eating, and

seek a place to encase themselves in their silky shroud. In stored combs or in weak or queenless colonies they build their cocoons almost anywhere, often piling them one on top of the other in and between the combs, until the whole hive becomes a mass of webs and cocoons. They remain in the pupal state anywhere from ten or eleven days to five or six months, according to temperature and the season of the year, this being their normal way of passing the winter. The first brood of moths issues in late April or early May, the second in July or August, and there is often a third in hot weather in October. Still, it is never safe to leave combs unprotected at any time when it is warm enough for moths to fly.

Italian bees guard their hives much better than black bees; in fact, if each hive has a fairly well bred Italian queen, and especially if no hives are left queenless, there need be no fear of bee moths doing any damage in the hives. The only danger is with combs which have been removed from the hives and stored. There should be as few such as possible. Leave all extracting supers on the hives until the middle of September, when the danger is pretty well past. Store combs in the hive or super to which they belong, properly spaced. Select an even spot on the honey-house floor, or lay down a queen-excluder, with the rim upward, and place on it two thicknesses of newspaper, to exclude moths. Pile the supers on this, taking care to leave no crevices where a moth can crawl through, and cover the pile with paper, to make the top tight. Combs stored even thus carefully should be examined occasionally to make sure of their continued safety. If at any time found to be infested, they should be overhauled, the galleries torn down, and the worms taken out with a sharp-pointed knife, or they should be fumigated with sulphur or carbon bisulphide. As sulphur fumes do not destroy the eggs, carbon bisulphide is better. Place the combs in a barrel or box that can be closed up tight, and put a quantity of carbon bisulphide inside in an open dish. As it is a liquid which evaporates like chloroform when exposed to the air, the fumes soon fill the whole box and destroy every form of life within it. As soon as one dead worm can be found in the combs, you may know they are all dead. Even comb honey may be treated in this way without injury. *Too much care cannot be taken to guard stored combs against moths.*

The Battle Against Lice in Poultry.

It will soon be time to resume the war against lice. A great many people are very sure that their poultry have no lice, and perhaps they have not, to the extent of doing them much harm. Very few flocks are entirely free from them, and it is quite probable that they exist in small numbers wherever there are fowls. I find so long as my fowls are healthy and active lice cannot increase rapidly enough to seriously annoy them. On sick and injured or scaly-legged fowls, sitting hens and very young chicks, they thrive when the general flock is comparatively free. Quite frequently they are introduced by new fowls, and it should be made a practice to treat all newcomers to a good sprinkling of lice powder of some sort. This should be attended to as often as additions are made to the flock.

There are several methods of treating houses and fowls for lice. Some will have success with one system, and others will fail owing to lack of thoroughness in doing the work. Fumigating the house, when fowls are out, by burning sulphur in it is a very good plan to rid the house of such lice as hide in the roosts and the crevices of the walls. Most insect powders in the market are good, but I have used the Persian Insect Powder for several years and like it better than any other I ever tried. I have succeeded in keeping my fowls free from lice by using this insect powder thoroughly in the house, nests, roosts, and on the fowls. Dusting with insect powder is no good unless thoroughly done. The way to dust a hen is to catch her by the legs and let her head hang downwards, holding her over a paper to catch the surplus powder, and give her a good dusting, letting the dust work itself into the feathers next to the skin. It is not a poison at all, but kills the lice by getting into their breathing apparatus, which is through openings in their bodies. The person doing the dusting should work the powder well into the feathers, and see that it goes to the "right spot."

Kerosene is the commonest remedy for lice. It is death to lice, but it is very often used too sparingly. Of course, it will not do to use it indiscriminately on fowls, and especially on chicks. In nest boxes, on roosts and all places where lice are liable to hide it can be used freely. It is a good plan to apply kerosene once a month to the roosts, nest boxes, and sides of the henhouse. For the walls of the poultry house kerosene emulsion is the best. It is made of hot soap suds with kerosene mixed by agitating it with a spray pump, and the latter implement is a splendid thing for applying it to the walls. It is far ahead of the brush, being more conveniently and more quickly done.

A different warfare will have to be made on lice on chicks; sitting hens ought to be dusted well when they are put on the nest, and the nest boxes well doctored with kerosene or lice paint of some kind, and it may be well to give the chicks a good dusting when taken off with the hen. The easiest, surest and quickest way to treat chicks for lice is when they are in their boxes in the morning, before they are let out. They are all huddled together, and may be placed in box made for that

purpose and the extra powder saved, but the dusting should be thorough. A few poultrymen rub a little lard on the heads and under the wings of chicks as a means of destroying lice. This is a very effective way to do it, but do not put on too much grease or you will have no chicks in a few days.

FARMER'S WIFE.

The Spring Chick.

The great difficulty poultry culture is compelled to overcome, until it is admitted into full fellowship with other branches of farming, is prejudice. The business must be admitted to the same opportunities that are extended to agriculture and the raising of stock. No man or woman can expect to succeed in a business for which they are unprepared and of which they are ashamed. The production of eggs depends upon the person managing the flock. In my childhood days it was no uncommon thing for a hen to steal her nest away and lay 11 or 13 eggs, become broody, and finally come back with a little brood of chicks. The same chicks would follow the hen until next fall. Those eggs were fertile and the chicks were strong, because they were the first and very often the only eggs the hen laid. If we could have had access to that nest and taken the eggs away as they were laid, the hen would have laid more eggs.

Every hen in a flock does not become broody when she has laid her litter of eggs, but she does quit for awhile, but nature soon supplies her with a new desire to bring out a brood of chicks, and in a short time you will notice the hen looking fine in appearance, and ere long she will be contributing her share towards filling your egg basket. Following this thought, we find, by removing all the eggs from the nests, feeding the right kind of feed, etc., we have brought our fowls up to the standard they now occupy. We have all read of the hen in its wild state in the jungles of India, where they laid only nine eggs a year. Now they have been brought to a state of civilization, where some of them have been known to lay over 250 eggs in a single year. The first nine Brown Leghorns I ever had produced nine eggs every day for two weeks. I give you this instance simply to show you what may be done.

Some breeds become broody sooner than others. I never had one of my Leghorns to set. I keep Plymouth Rocks and common hens for incubation purposes. Every farmer's wife has taken the old sitters off the nest and thrown them out of the henhouse with a vengeance, shut them up in a box where they could sit down comfortably, put a piece of an ear of corn or, perhaps, only the cob—under them, and they would sit there as contentedly as if they had a dozen good eggs. A little thought and study would have taught a woman or man that what the hen needed was a good cooling off. I have seen poultrymen have a light lath box and swing it up overhead in the poultry house, put old biddy in, and let her swing where the fresh air could strike her from all sides. Feed and water well, and she will soon be laying again. I do not have to use one of these boxes, as my chicks are non-sitters, and when the Plymouth Rocks want to sit, I give them eggs.

When you set your hens, endeavor to set as many at once as you can. It will require but little more time and care to look after four or six hens than it will one, and then one hen can brood from 20 to 30 chicks, if all the same age.

Do not disturb the hen during the first 48 hours, as it takes just that time to start the chick on its life voyage. Fair-sized hens could be given 13 eggs, but 11 is better, I find. On the twentieth day the chick has drawn the last nourishment from the egg, and is anxious to get out of its prison. It always breaks the egg at the largest end, because it is always less moist and more brittle at that end. Then, too, the head of the little chick is turned there for air, and the beak breaks through the rotten walls, finds more air, and presses hard and soon breaks away from all feeble resistance, and thus ends the period of incubation.

We notice that the first 30 hours the hen sits quietly brooding her chicks, never once offering them food or water. The first necessity, then, is not food, but warmth and a good dry place for the hen and her family.

Bear in mind their gizzards were given them to grind their food, and if you keep their crops full of soft food, you are apt to derange the system and invite disease. In my opinion, chicks should never be fed corn meal raw. If you must and will feed corn meal, mix it with boiling water, or, better yet, put a little salt and pepper with it and bake it well. I find the best possible food for the first week is hard-boiled eggs chopped fine, shell and all, and fed to them in small quantities. Some farmers will think this is too expensive, but I find it pays for a few chicks, and it would be just as profitable for a greater number. What would your wife think of you if you gave that newly-born calf a bundle of hay or some corn meal instead of a pail of nice new milk right from its mother. The egg is the most natural food for the chicks and consequently the best. When they are a week or ten days old, feed them some whole grain. Wheat is the best. Let them have all the grit they need, and keep good clean, pure water always before them. It appears

natural for them to want a variety of food and to be all day collecting a crop full. You may feed liberally of anything they like in the morning, repeat it at noon, and feed again at night; but they will not do nearly as well as when fed little and often. They will pick up plenty of insects in the spring if they are allowed to roam. Let them have free access to the garden and they will pick up all the meat they need. They will pick the insects that infest growing plants, but will not molest any of the plants until they become good-sized birds. FARMER'S WIFE.

Duck Raising.

Ask farmers why they do not raise ducks, and nine out of ten will answer that they eat more than they are worth; and so they will if you do not understand feeding them. I keep four ducks and one drake, and feed them principally on roots during winter. If kept in clean, dry quarters, disease seldom attacks them. Apoplexy sometimes attacks grown ducks when they are very fat. If attacked by large gray lice on their heads, they will appear well, and suddenly turn over on their backs and die. Cramps occur from being chilled in cold water. I find it better to keep them away from ponds of water, and to arrange their drinking water so they cannot get in it.

Breeds.—The Pekin is the largest breed and also the most profitable to raise. The feathers, being a creamy white, are also worth more than dark feathers. I always select four of my best early-hatched ducks and mate them with a two-year-old drake in December. They should not be closely related. It will pay to buy a good drake and give a few dollars for him. Your ducklings will be stronger, larger and easier to raise.

Care during winter.—I feed principally on roots (pulped), silage, steamed clover hay, and at night a good feed of meal moistened with sour milk, and once a week a little meat. They are kept in an open shed, with plenty of litter on the floor, their feed trough being arranged so that they cannot get into it, for ducks will, if not prevented, waste as much food as they eat. My way is to have it arranged so that they have to put their heads through between slats to reach their feed and also their drink. Always have water where they can go to it at all times. They will start to lay early in the spring and often lay until June or July. They will lay a hundred eggs each, with proper food and care. As soon as the grass starts, I allow them to run in the orchard, and feed only once a day, at night, a liberal feed of moistened meal. (They will eat any kind.) They come to their pen regularly for this. I then fasten them in until morning.

Setting.—I set the eggs under hens, eleven being the number given, always setting two hens the same day, giving the ducks all to one when hatched. I set them away from other fowls. Keep feed and water before them, and see that they get off every day. I place an old sod turned upside down under the nest in a box, then three or four inches of chaff on top. Often every egg will hatch.

Care of young.—The hen is placed in a large coop with a yard six feet square in front of it, made of poultry netting one and one-half feet high and covered over the top with netting. This protects the young ducks from cats, dogs and other enemies, and prevents any other fowls from stealing their feed. You do not have to run out to your pen a dozen times a day to see if your neighbors' cats or dogs are carrying off your ducklings. A trough is kept in the yard, one end used for feed, the other for water, with narrow slats all around for them to put their heads through between, the same as the large ones feed. I fill the trough twice a day with water, and feed five times a day: the first two weeks bread, soaked in milk, squeezed dry, or curd; after that oatmeal, corn meal moistened with milk, some dandelions, onions, cooked vegetables, mixed with it—anything for a change. Try and keep them full, but on no account feed whole grain to ducks. When a month old they will do just as well without their old mother hen, so set her free and move the yard to a clean grassy plot. I find the orchard an ideal home for ducks. Never allow ducks in the hot sun. It is not good for them. There should always be a spot in their run that the sun does not shine on, and when not busy eating you can depend on them sleeping there in the shade. Feed just as well as you can, all they will eat up five times a day. Keep their appetites keen by continually changing their feed. Variety is the spice of life—remember this while feeding ducks. Angeworms are excellent feed for young ducks. If you have no meat convenient for feeding, get the children to dig some worms for them. Twice a week is often enough to feed meat.

Marketing. When twelve weeks old they will dress from eight to ten pounds, and return a handsome profit. Then there are feathers, which usually bring a good price as well. There is no money made by letting a flock of ducks roam all over the farm all summer, half fed, shutting them up in the fall and stuffing them with corn, as is often done, to be sold for the Christmas trade, when there is plenty of poultry of all kinds on the market and the price is low. R. F.

HORTICULTURE.

Timely Suggestions.

From the pamphlet recently issued by the Forestry Association, the following extracts are taken:

John Caldwell, of Virden, recommends the following, for ordinary prairie planting, as the best varieties.—1, white elm; 2, Manitoba maple (box elder); 3, Russian poplar; 4, balsam poplar; 5, cottonwood; 6, white spruce.

The Manitoba maple is probably our best-known tree. Some have objected to it as not growing to a great size, as soon decaying at the roots, and as a great attraction to insects; but in the open country we are fond of it, though it seems to be unpopular as a shade tree in towns and cities.

Preparing the Soil.—Whether for sowing seed or planting seedlings and cuttings, the ground should, a year before sowing or planting, be plowed, harrowed, thoroughly pulverized, and not a weed left. In the year following the preparation, the seed may be sown, either broadcast or in narrow rows. Narrow rows make less cultivation necessary than broad rows do. This is really the nurseryman's stage.

For ordinary farmers it is better to get seedlings or cuttings thus grown by the nurseryman. When the farmer has his ground ready, he should get seedlings a year old and plant these in rows three or four feet apart and say three feet from each other in the same row. After two or three seasons more, these may be again transplanted into the avenue, wind-break, or plantation.

Planting.—About the middle of May—always watch for Arbor Day—take the seedlings or cuttings to the well-prepared strip of soil, and with a dibble or sharp-pointed stake make a hole to receive the cutting. The cutting should be down six or seven inches, leaving two inches above ground. After setting it, the earth should be tramped hard about it.

Seedlings of the Manitoba maple should have the fibers cut from the roots and the taproot removed, and then be planted an inch deeper than when in the seed-bed where they grew. The roots of seedlings should be well spread out and the plants well watered when planted.

Cultivation.—The real work of successful tree-growing now begins. Failures in the past in nine cases out of ten were from neglect after planting. Continued effort is the secret of success. The motto of the tree-grower is: Cultivate! Cultivate!! This may seem unreasonable, may be called a "fad," may seem to some to leave out the element of a benevolent Providence, but it is the sole road to success. Cultivation is essential to loosen a layer of soil on top to keep the moisture in the earth. When the soil is allowed to form a hard crust, or cake, it makes a good conductor to take the moisture from beneath. Cultivate as soon as the slightest crusting begins to appear. Weeds must be destroyed, else trees will not grow. A weed serves as a medium or conductor for carrying the moisture from the earth to the air. It has been said that two large weeds near the base of a tree will take away as much moisture as would keep the tree alive. Wisdom then says: Cultivate, and destroy the weeds. Of course, this patient care is only needed for two or three years. After a few years the trees thicken, the leaves spread, and the soil below the tree becomes so shaded that the baking by the sun does not take place, and the weeds cannot grow. The farmer then enjoys the beauty and protection of his avenue or wind-break.

Superintendent of the Brandon Experimental Farm reports on the

Cost of Cultivation.—In the spring of 1895, a plantation of one acre in extent was placed near the main road, with two-year-old seedlings of the ash-leaved maple and white elm. The object in undertaking this plot was to find the cost of planting and maintaining half an acre of trees until they were large enough to shade the ground and prevent the further growth of weeds. After four years, this plot has reached that stage, and in future will be kept clean with a few hours' work around the edges.

COST OF PLANTING HALF AN ACRE.

Growing and digging trees.....	\$2 50
Cost of planting, 10 hours.....	1 50
Filling vacancies, 5 hours.....	37
First year of cultivating—hoeing, 10 hours.....	1 50
Second year of cultivating—hoeing, 7 1/2 hours.....	1 12 1/2
Third year of cultivating—hoeing, 5 hours.....	75
Fourth year of cultivating—hoeing, 2 1/2 hours.....	37 1/2
Total.....	\$8 12 1/2

Superintendent McKay, of the Indian Head Experimental Farm, adopts the following plan for

Re-planting.—In taking up and re-planting the young trees the following plan was adopted: One deep furrow was plowed alongside the young trees, and the long roots cut by a second furrow, which enabled the men following to gather the trees in armfuls without any difficulty. The roots were carefully protected from sun and wind by being covered with damp earth as soon as they were taken up, and when required for planting were taken out in a tub half filled with thin mud.

In planting, a furrow is made with the plow, going twice in the same place, as deeply as possible, and the furrows as far apart as necessary. One, two or three men, according to the length of the furrow, follow, as soon as the furrow is made, and plant the trees by placing the roots in the bottom of the furrow and drawing the earth from both sides with the feet, and tramping it well.

The long taproot on young maples is cut off be-



THE GUILD OF THE BRAVE POOR THINGS.

BY NORA ARCHIBALD SMITH.

"It is to be called the Book of Poor Things, mother dear. It's a collection—a collection of Poor Things who've been hurt, like me; or blind, like the organ-tuner; or had their legs or their arms chopped off in battle, and are very good and brave about it, and manage very, very nearly as well as people who have got nothing the matter with them. Father doesn't think Poor Things is a good name. He wanted to call it Masters of Fate, because of some poetry. What was it, father?"

"Man is man, and master of his fate," quoted the master of the house.

"Yes, that's it. But I don't understand it so well as Poor Things. They *are* Poor Things, you know, and of course we shall only put in brave Poor Things, not cowardly Poor Things."

If you ever happened to meet a little lad named Leonard, who lives in the pages of Mrs. Ewing's "Story of a Short Life," then you will remember, with misty eyes and an ache in the throat, that chapter wherein the hero directs from his wheeled chair the ruling and printing and illuminating of his Book of Brave Poor Things.

The child has been the victim of an accident, which not only makes him a cripple, but racks him with distress and pain, and, under the nervous strain of the affliction and the consequent "spoiling," he has become capricious, tyrannical, a torment to himself and to others. Fortunately, when things have reached a climax of wretchedness, his wise mother comes to the rescue, and, appealing to the boy's courage, his sense of honor, and to his passionate interest in soldiers and soldierly qualities, teaches him that, though a military life can never now be his, he yet may be "a brave cripple." The ancestral motto of the family, *Lotus sorte mea*, is so interpreted to the child that he grows to feel it a matter of duty to be happy with his fate, and begins to think that perhaps there are "lots of brave afflicted people, and perhaps there never was anybody but him who wasn't so."

Leonard has a touching interview with a hero of the Victoria Cross, in which, true to his great life-interest, he is intent on finding out whether, if he is very good and patient about a lot of pain in his back and his head, that would count up to be as brave as having one wound if he'd been a soldier; and whether being ill in bed might count like being a soldier in a hospital.

"I suppose nothing—not even if I could be good always, from this minute right away till I die—nothing could ever count up to the courage of a V.C.?" questions the boy wistfully; and the brave, tender-hearted wearer of the priceless bit of iron answers tremulously, "God knows it could, a thousand times over!"

Leonard, and the Book which he thought out so carefully, suggested to Sister Grace the formation in the Bermondsey Settlement, South London, of the Guild of the Brave Poor Things. It is an association of men, women and children, of any creed or no creed, who are crippled, blind, or maimed in any way. Any one is eligible for membership if thus afflicted, and if, at the same time, he is resolved to make a good fight in life. *Lotus sorte mea*—Happy in my Lot—is the watchword of the Guild; and its hymn, the one which Mrs. Ewing's hero called the Tug-of-War hymn, because, at the military chapel which he often attended, the soldiers sang the verse beginning, "A noble army, men and boys," with such tremendous impetus and vigor that, after a brief contest, they invariably pulled away from the organ and the whole choir.

The deepest purpose of the Guild, says Sister Grace, is found in this verse of the hymn:

Who best can drink His cup of woe,
Triumphant over pain;
Who patient bears His Cross below,
He follows in His train.

It is by "awakening the heroic that slumbers in every heart," and by teaching its members that the courage to bear and the courage to dare are really one and the same, that the Guild lives up to its motto; for its founder believes that it is not enough patiently to accept one's life-burden, but that one must also learn to bear it cheerfully.

It is inherent in the very idea of the Guild that it should bring light and brightness into cold, gray lives; and so, in every room in which it meets, the walls are draped with the Union Jack, and high above shines out in brilliant scarlet letters the watchword, *Lotus sorte mea*. There are badges, membership cards, and banners, all in red, the soldier's color, and the true military spirit is insisted upon.

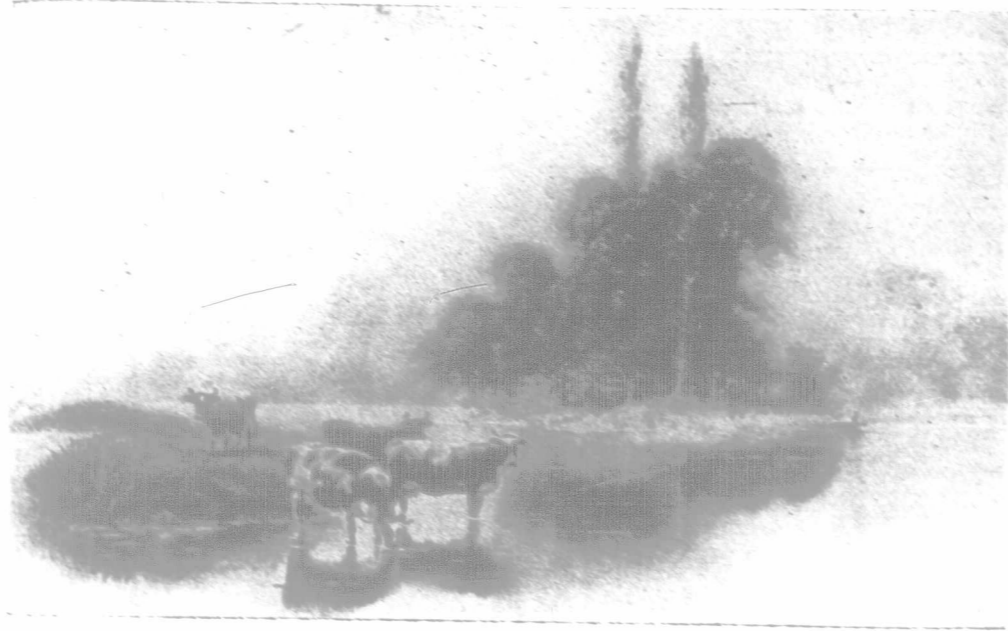
"It is important," says Sister Grace, "to guard against anything like a sentimental glorification of suffering; and, to shut out such a possibility, the Guild must have a knowledge of the conditions of life of all its members, and must be ready to do everything that can be done to minimize their actual distresses." It is not a charity, however, and does not give relief; it is merely a friendly organization of afflicted persons meeting frequently, with leaders who are interested in their troubles and who can give strength and courage to bear them more bravely. Where relief must be given, it is done through other societies, and so there is no asking nor giving here, save in the things of the spirit.

The Guild of Brave Poor Things was organized in 1884, and so great a need has it apparently met, and so well has it taken advantage of the "together" spirit of the age, that it now has six branches, with a membership of more than five hundred. It is a pitiful thought that there are so many persons in one locality who belong by right to such a club, but even more pitiful would it be were nothing done to lighten their double woes of poverty and disease.

The various things necessary to a successful conduct of the Guild are thus stated by Sister Grace:

1. To visit members in their own homes and establish personal links between the workers and members.
2. To hold regular meetings at stated intervals for games, singing and social intercourse.
3. To bring, as far as possible, technical classes and suitable lectures within the reach of members of the Guild; to arrange for periodical excursions, concerts, etc., for them, together with any other means of widening their necessarily restricted lives.

The Guild's rules are few and simple: merely that the name, motto and hymn shall be the same in all branches, that flags shall always be used in the decoration of the rooms, that the soldierly



"ON THE THAMES."

virtues of loyalty and prompt obedience be cultivated in every way, and that records be kept of the name, address, and condition of each member.

And what are the proceedings at the Guild meeting? you ask.

These may be held either in the afternoon or evening, and so great is the interest in them that many of the members gather at the entrance long before opening time, reminding one of that even in Capernaum when the sun did set and when they brought unto Him all that were sick of divers diseases, and all the city was gathered together at the door.

There are blind people here; there are deaf-mutes; there are paralytics who can drag themselves along, and others who must be pushed in chairs or perambulators; there are as many phases of distress and deformity, perhaps, as there are persons, and all ages are represented; but there is much good-fellowship and constant helpfulness.

Tables are set in the Guild-room, where books and papers and magazines are scattered for those of seeing eyes; there is a piano for the blind; there is a lending library from which books may be taken home; there are toys for the younger children; and there is always a painting table, for it seems that mottoes and pictures to color are in great demand the year round.

Many of the blind women bring their knitting or other handiwork, and chat quietly together as their busy fingers move; the men fall into conversation over the games and pictures, and thus the grace of friendship is added to these lives of deprivation and suffering.

In many of the Guilds weekly half-hour lectures on science, history and travel are given, and seem to be greatly enjoyed; and always when games and lectures and conversation are over there is the ever-delightful singing practice. If any of the members are found to have special musical ability, or a knack at recitation, they are encouraged to help in entertainment, and considerable talent is thus discovered and a new value given to the self-estimate of the possessor.

At the close of the exercises the roll is always called, each soldier of the army, from baby to gray-beard, answering to his name, and then comes Leonard's "Tug-of-War" hymn, for which all stand, or at least assume as nearly an erect position as weak limbs and twisted spines will allow.

It is their battle-hymn, and if with its echoes ringing in their ears they can go back to their poor homes and quit themselves like men, if they can fly their scarlet banner with its joyous motto, if they can fight the battle of life with courage, heavily weighted as they are, then indeed may they be called the bravest army that ever went forth to warfare.

"On the Thames."

The hour is evidently one drawing towards evening, as is shown by the lengthening shadows and by the expectant attitude of the cows as they listen for the call into the sweet pasturage of their own home meadow close to the water's brink. Milking time over, they will lie amongst the long grass and buttercups all through the summer night, to awake at early dawn for another day of blissful inactivity by sweet Thames-side, all unconscious of the beauty of their surroundings, or that they themselves add the living touch, failing which no picture of mere still life can be perfect. On one side of the picturesque, well-wooded little island is a man fishing from the inevitable punt, without which no artist could dare attempt to portray even the quietest nook of loyal old Thames, whilst to one who knows it well, the very sound of the frothing water as it falls over the weir near by seems to come as an echo by merely looking at the deceptive sweep of quiet water, which is all our picture shows of the big downpour for which it is gathering its forces.

There are rivers and rivers, and although the historical Thames, even if they only know it on paper, must always have a charm for every loyal subject of England's Sovereign, in whatever part of Canada their lot may be cast, yet with what pride of ownership can they point to the big rivers of our

Dominion, with sheer precipices for banks, with torrents for cascades, and with a wealth of water-power which the whole civilized world might envy. Still, each has its beauty, and each its source of usefulness.

H. A. B.

Recipes.

DANDELIONS WITH EGGS.

Pick over, wash and drain six quarts of dandelions, throw into two quarts of boiling water, add one tablespoon salt and one-quarter teaspoon soda; cook forty-five minutes; drain in a colander, turn in a large serving dish, cut across several times; have ready hard-boiled eggs, remove shells and halve lengthwise, place the halves over the top of the greens; melt two large tablespoons of butter, pour over the greens and eggs, add a dash of pepper, and serve.

DANDELION SALAD.

The white, crisp leaves of the dandelion make excellent salad, without cooking. Tear apart one quart of the crisp leaves, using the white parts; mix through the leaves two tablespoonfuls of horse-radish root grated; dress with the following mayonnaise: one egg, three tablespoons water, two tablespoons vinegar, butter size of a nutmeg, half saltspoon salt, half teaspoon made mustard, one dessertspoon sugar; boil five minutes, stirring constantly; when cold, pour over the dandelions.

ENGLISH SPRUE AND EGGS.

Boil till tender, in salted water, two pounds of asparagus, cut in inch pieces, drain thoroughly; beat two eggs, whites and yolks separately, adding a tablespoon of cream to the yolks, half as much butter and a seasoning of pepper and salt; mix with the asparagus, stir in the whites, and shake the saucepan over the fire till hot; serve in a deep dish with points of toast.

ASPARAGUS SALAD.

Boil the asparagus, not too tender, lay in cold water to preserve its plumpness; serve with a dressing of oil, vinegar, pepper and salt, mixed in the following manner: to four tablespoons of salad oil add one teaspoon of salt and a dash of white pepper; beat well, add slowly, drop by drop, two tablespoons of vinegar.

"Fate."

Two shall be born the whole wide world apart,
And speak in different tongues, and have no thought
Each of the other's being, and no heed;
And these o'er unknown seas to unknown lands
Shall cross, escaping wreck, defying death:
And, all unconsciously, shape every act
And bend each wandering step to this one end:
That, one day, out of darkness, they shall meet
And read life's meaning in each other's eyes.

And two shall walk some narrow way of life
So nearly side by side that, should one turn
Ever so little space to right or left,
They needs must stand acknowledged face to face;
And yet, with wishful eyes that never meet,
With groping hands that never grasp, and lips,
Calling in vain to ears that never hear,
They seek each other all their weary days—
And die unsatisfied—and that is Fate!

Susan Mary Spaulding.

THE QUIET HOUR.

The Bondage of Fear.

"Think not I dread to see my spirit fly
Through the dark gates of fell mortality;
Death has no terrors where the life is true:
'Tis living ill that makes us fear to die."

Someone has described a picture of a churchyard through which there is a path on which a little girl is walking. A dying man, who is leaning against the gate-post, says, "Do you not fear the churchyard path?" "It is my way home," is the fearless answer.

There is one subject in which we all have reason to be interested. Young and old, rich and poor, the happy and the miserable, are all steadily moving on to the same goal—*death*. As this is a matter of such great importance to every mortal, would it not be as well to think about it a little? Some people never seem to realize that death is in their path. Death is not in any of their thoughts, and yet, no matter how full of life they may be, they will hardly escape the last enemy. Other people do think of death, and are terribly afraid of it. Surely there are many to-day who, through fear of death, are "all their lifetime subject to bondage." The slavery of fear! What right have we to be in bondage to an enemy which our Master has conquered? Those who know nothing of God may well tremble when stepping out into darkness; but when a Christian submits to the bondage of fear he dishonors the Lord who has given him the victory over death. We are often very inconsistent: singing joyful hymns about the life after death and our desire to reach that better world, professing to believe that the pleasures of this life are not worthy to be compared with those of the next, and all the time clinging with frenzied clasp to the smallest possibility of a chance of prolonging our life here. We shrink with shuddering dread from the meeting with our God. It is not only a physical shrinking from a physical death—that is natural enough; and even our Lord, in Gethsemane, seems to have endured that human dread. The fear we should try to overcome is deeper, more like spiritual fear. If all, or nearly all, our pleasures, aims and ambitions are centered here, of course we shall prefer to stay here. Where the treasure is the heart will be. Think of a man who has devoted all his talents, time and opportunities to the making of money. What has he to look forward to in the next world? The money he has so persistently raked together must all be left behind, and *he cares for nothing else!* What are heavenly joys to him? Spiritual riches are not to his taste, and he only pretends to think they are worth more than the gold and other treasures he must leave behind. It has been said: "Not to fear death is a slight to Him who made it our special punishment. Not to desire death is an indifference to Him whom we can only reach by passing through it."

"This life of ours doth but our life begin,
Is but outside the porch of the abode;
And death the going home—the entering in,
The stepping forth on the wide world of God."

This slavish fear of death is very common, I am afraid. Think of the panic a report of diphtheria or smallpox in our midst produces! Where is the fearless trust in God which is so vividly described in that beautiful 91st Psalm? "Thou shalt not be afraid for the terror by night, nor for the arrow that flieth by day; nor for the pestilence that walketh in darkness; nor for the destruction that wasteth at noonday. A thousand shall fall at thy side, and ten thousand at thy right hand; but it shall not come nigh thee." This glad fearlessness is *promised* to those who abide under the shadow of the Almighty. If we do not possess it, then surely our faith must be very weak. If we really trusted God He could not fail to be our "refuge and fortress."

But even the physical pains of death are often anything but terrible. Dr. Hunter expressed what might have been the wish of many thousands of dying men and women, when he said: "If I had strength to hold a pen I would write down how easy and pleasant a thing it is to die." Think of all the people whose last hours you have witnessed or heard of, and I feel sure you will confess that the soul very, very often departs from the body peacefully and painlessly. How *young* the still, cold face looks! The tired lines and wrinkles are so often smoothed out, and the look of peace and rest ought to stop at once the common habit of applying the epithet "poor" to those who have left sorrow and pain behind. "Poor!" Surely we are poor, not they.

"Weep not for death!
The fount of tears is sealed,
Who knows how bright the inward light
To those whose eyes are veiled!
To those whose eyes are veiled!
Who knows what holy love may fill
The heart that seems so cold and still!"

Why are we so sorry for those who die? Why are we so afraid to die ourselves? Do we think God can take care of *us*, but not *them*? Do we really think that those who have passed within the veil are "poor," and that we who linger here, oppressed by fear and care, are rich?

Some sentimental Christians are very eager to die, and are anxious and despondent. In fancy they leave their bodies, and are hovering about everyone within their reach. But they do not wear their hearts in their hands, and they do not let their paradisiacal thoughts lead them to forget the needs of their

religious feelings. As Robertson says: "Every day Christ's servants are dying modestly and peacefully—not a word of victory on their lips, but Christ's deep triumph in their hearts. They die, and the world hears nothing of them, and yet theirs was a true victory. They came to the battle-field and found no enemy to fight with—no foe was in sight."

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Who knows what holy love may fill
The heart that seems so cold and still!"

HOPK.

THE CHILDREN'S CORNER.

"Convalescent."

I wonder whether any of you children understand, by experience, the delights of convalescence. The long, weary days of sickness and pain are over. You are out of bed at last, and find yourself the pet of the whole family.

The little girl in the picture must have been very ill, for she still has a trained nurse in attendance. I fancy she must be an only child, with every luxury within reach, except the luxury of a jolly lot of brothers and sisters. What do you say? Don't you think young companions are worth more than picture-books? I do. C. D.

PRIZE COMPETITIONS.

I want everybody to try and win a prize this time—everybody, at least, who is under sixteen



"CONVALESCENT."

years of age for our subject is both interesting and easy. Prizes will be given to the writers of the best essays on "Interesting Animals." You can describe animals you have known, or those you have heard or read of. The competitors will, if possible, be divided into classes according to age. All MSS. must be posted before the end of June. Write your name, age, and address on the back. My address is as usual: Box 192, Newcastle, Ont.

COUSIN DOROTHY.

PRIZE ESSAY III.

"How Queen Victoria Won the Love of Her People."

We were in mid-Atlantic, aboard the Seagull—my uncle and myself. It chanced one morning that we were on deck very early, and were the only passengers there, save a Frenchman, who sat reading a newspaper. Soon, however, he threw it down, and exclaimed, impatiently: "It is full of 'The Death of Victoria,' that English queen. Of course, this paper states that all her people loved her, but why so much, I don't see?" And, then, to my uncle he said: "You are English, monsieur, explain this, please." So to please him, my uncle began:

"Victoria had been well taught by her mother in her early years, but she herself said, 'I will be good, and she has surely performed enough good acts through her long reign to show us that this was no idle resolution.'"

"All through her life she lived up to the highest Christian ideals, and, although exalted in position, was always humble in heart. She loved the commonest of her people, and often visited the sick and needy ones among them. Many of these people never knew that it was the Queen who was ministering to them; she was always so kind and humble, and dressed so plainly. Yet they loved her for her kindness, and, if afterwards they happened to see her as 'Her Majesty,' they loved her more."

"Victoria thought not only of these common people, but of them all. She remembered her soldiers in foreign lands, and did not forget to send a word of praise to their brave leaders and survivors. Nor did she forget the wounded, 'oldies' in

the hospitals at home. The little children and other inmates of those same places often saw her. Whenever she went among them all she scattered cheer as well as flowers."

"So that, although her reign was one of great progress in science, literature, and inventions, you see, my friend, that it was not these that made all her people love her. It was her Christian character, her never-ceasing kindness, her humility, and because she sympathized with her people; for when they had sorrows, she sorrowed with them, and when they were joyous, she was also. 'Such,' concluded my uncle, 'was the life of Victoria, the model mother, wife, and queen.'"

"Ah," said the Frenchman, "they had reason to love her; but she has surely won her reward and exchanged her earthly crown for one of glory."

Then he arose and went off deck, leaving us to think that his last opinion was certainly correct.

ALVINSTON, ONT. MARY COLHOUN (aged 14).

Ingle Nook Chats.

MY DEAR GUESTS,

Of course, we are all duly sensible of the loveliness that everywhere surrounds us, but we shall not wait to comment upon it now, as I want to have a "chat" this time in real earnest. First, I extend a hearty welcome to all who have honored us by visiting our Nook, but I have an especially snug corner for the old friends of puzzle days. "McGinty," little man, I was very glad to hear from you. Studying, are you? For one of the "learned" professions, or to be an educated farmer? Happily, the latter is not so rare as he formerly was. "Eugenie," I applaud your ambition to "keep up with the times," in order that you may assist your "bonnie laddies" in the future. It is somewhat of a task to keep pace with the shooting of the young ideas nowadays, is it not? And parents too often overlook the necessity of so doing. I reciprocate your good wishes, "Eugenie," and shall be pleased to hear from you again.

J. F. M. I have not the selecting of the prizes sent out. When you win, you must take your chance like the rest. "Old Maid," the W. P. B. can do very well without your contribution till the contest is over. To you and all others who have asked admission to the Nook, I repeat that there are no restrictions as to age or otherwise—whosoever will may come.

E. A. C.—The Ingle Nook certainly seems to interest a far greater number than the puzzle column did, although I frequently receive regrets that it was discontinued. The aim of the *ADVOCATE* being to please the majority, I think the present course is the more successful one. "Whitfield," the contest herein announced is another form of puzzle. I hope all who have expressed themselves as interested in that art will show their appreciation by sending in good lists in answer to it. "Minnie May" and "Madge," I, too, believe that the information gleaned while working at literary puzzles is a fair reward for the labor bestowed upon them, or, to borrow a quotation:

"The reward is in the doing,
And the pleasure of pursuing
Is the prize the vanquished gain."

I enjoyed your pleasant notes; am pleased to find my guests growing more genial. J. L. F. is a very clever little girl, but I find cleverness very common among you Maritime people. I have only spoken to a few of my guests, and I find space growing small, so I must forego the pleasure of further conversation, and direct my attention to

OUR COMPETITIONS.

Time is up for No. IX., and result will appear next issue; meanwhile, I hope you are all at work on "Canadians" who have become famous. Prove, now, that a prophet may be honored in his own country, by sending in some good essays. The very general response to Contest IX., induces me to give another of a somewhat similar nature. Therefore, for Contest XI. we offer three prizes for the three best lists of names sent in answer to the following puzzle. This contest will be open until July 31st. In case of ties, neatness, spelling, etc., will be taken into consideration. Sign name (or pen name) and address to your work, as well as to any communication which may accompany it, thereby guarding against mistakes.

CONTEST XI. Our Library partly phonetic.

1. Makes and mends for first-class customers.
2. Pilgrims bend low to kiss.
3. The dwellings of civilized beings.
4. Is worn on the head.
5. Not one of the points of the compass, but inclining toward one of them.
6. What an oyster heap is likely to be.
7. An American manufacturing town.
8. An internal pain.
9. An important part of the body.
10. A worker in precious metals.
11. A mean dog.
12. A manufactured metal.
13. Is very fast indeed.
14. A slang expression.
15. A kind of linen.
16. Very painful companions.
17. Unpleasant on your foot.
18. Certainly not a dwarf.
19. Not far off.
20. Our Corner, and the sound made by a domestic animal.

There, my puzzle-loving friends, is something to amuse you. The said man has been throwing dust in my eye for the past half hour, so I shall say "good night" to you cordially.

Ingle Nook Chats—Pakenham, Ont. THE HOSTESS.

Two Things to Learn.

Learn these two things: Never be discouraged because good things get on slowly here, and never fail daily to do that good which lies next to your hand. Do not be in a hurry, but be diligent. Enter into the sublime patience of the Lord. Be charitable in view of it. God can afford to wait; why cannot we, since we have Him to fall back upon? Let patience have her perfect work and bring forth her celestial fruits. Trust in God to weave your little thread into a net, though the patterns show it not.

G. McDonald.

The Farmer's Wife.

Our last home topic, "Why Some Women do Not Get Married," has brought out of the corner of an old desk a clipping yellow with age and written at least twenty-five years ago, but which, if only for the inspiration of the thought conveyed in the last verse, we are pleased to reprint for the benefit of the readers of our Home Magazine. Twenty-five years is a long stretch of time, and it has borne witness to much steady progress and to many changes changes which cannot have been without their significance to the farmers' wives of our land. There have been wonderful improvements in farm machinery. The work has been eased to the worker in field, barn, and stable; in fact, "the changed conditions of agriculture," we are told, "have practically revolutionized the work on the farm." Combination and organization have solved many a problem for the farmer of to-day which sorely puzzled the farmer of over two decades ago.

How about that part of the homestead presided over by the wife and daughters? What has been done to oil the wheels of the domestic machinery for them? Doubtless, amongst the more farseeing, and perhaps more wealthy, of the farmers, due consideration has been given to the subject. But is it so everywhere? How many of the wives still have to make the best of badly-planned and poorly-equipped dwellings, when a remedy might easily be found? We venture to think that the same enlightenment which has borne such fruit when practically applied outside, would be as fruitful of results if brought to the test of home application, and is it not as true an economy to save labor within as without doors—to save the strength of the willing worker within, as it is to save the strength of the willing worker without? And then, to bring us back to the subject of our last home topic, has not the recognition of the need to have a more thoughtful consideration for the "weaker vessels" of the farmer's homes an important bearing upon the whole matter? There would be, perhaps, fewer mere home drudges like that wonderful Lucindy, but the young farmers of Ontario would have for their mates women of intelligence and culture, who need not be the less admirable housekeepers or homemakers because, the details of their work having been made more easy of arrangement, they could have leisure to cultivate their minds, beautify their surroundings, and, by keeping abreast with the educational opportunities of the day, be not only more companionable to their husbands, but wiser and more judicious mothers to the children God may give them. From homes so mothered the daughters would be less likely to be attracted away into the so-called wider sphere of a city life: nor

would the sons consider the honorable "profession" of a farmer not good enough for them. But it is time to introduce to you

An Ontario Farmer's Wife of Five-and-Twenty Years Ago.

"Up with the birds in the early morning. The dewdrops glow like a precious gem. Beautiful tints in the skies are dawning. But she's never a moment to look at them. The men are wanting their breakfast early. She must not linger, she must not wait. For words that are sharp, and looks that are surly. Are what men give when the meals are late. Oh, glorious colors the clouds are turning. If she would but look over hills and trees. But here are the dishes, and here is churning. Those things must always yield to these: The world is filled with the wine of beauty. If she would but pause, and drink it in: But pleasure, she says, must wait for duty— Neglected work is committed sin. The day grows hot, and her hands grow weary: Oh, for an hour to cool her head. Out with the birds! and winds, grow cheery! But she must get dinner and make her bread. The busy men in the hay-field working. If they saw her sitting with idle hand, Would think her lazy, and call it shirking. And she never could make them understand. They do not know that the heart within her. Hungers for beauty and things sublime. They only know that they want their dinner. Plenty of it, and 'just on time.' And after the sweeping, churning, and baking. And dinner dishes are all put by. She sits and sews, though her head is aching. Till time for supper and 'chores' draws nigh. Her boys at school must look like others. She says, as she patches their frocks and hose. For the world is quick to censure mothers. For the least neglect of their children's clothes. Her husband comes from the field of labor. He gives no praise to his weary wife. She's done no more than has her neighbor. 'Tis the lot of all in country life. But after the strife and weary tussle. When life is done, and she lies at rest. The nation's brain, and heart, and muscle. Her sons and daughters shall call her blest. And I think the sweetest joy of heaven. The rarest bliss of eternal life. And the fairest crown of all will be given Unto the wayworn farmer's wife."

—Name of writer unknown. H. A. B.

Pretending to Know Everything.

A FAD OF THE TIMES. One of the most absurd fads of the day is the prevailing mania we all have for affecting to know everything. It is the fashion to be wise, and we are solemnly attitudinizing in the misfit role of savants. No subject is sacred any longer to the specialist, and if we have not gone to the bottom,

we have at least skimmed the cream off the pan of knowledge on every topic.

Nowadays it were better never to have been born than not to have seen the last play, read the last book, heard the last thing. If we have not universal culture, we have what has been aptly described as culturine, and not one in twenty knows the difference.

So we rave over classical music and go to hear Paderewski, and applaud in the wrong places. We discourse about feeling and values in pictures, when we can't tell a chromo from a lithograph. We go into ecstasies over old Chelsea and Royal Worcester, when the only way we know it from brand-new china is by the price-tag; and we pay down good money to see foreign plays, by foreign actresses, in a language of which we do not understand one single word, and try to maintain an expression of enjoyment while we suffer agonies of boredom.

No one has the courage to say "I do not know" any more, though there is nothing in the world more charming than intelligent ignorance. What a pleasure it is to describe a play, a quaint bit of scenery, a historic spot, or recount a tale or legend to some one who is not acquainted with it, but whose quick fancy follows, enraptured, your every word!

Alas, that delight is denied us now. Everybody has been everywhere and seen everything, or, if they haven't, they pretend they have. If Diogenes were on earth now he would not go about with his dark-lantern, seeking an honest person. He would be on a still-hunt for a man or woman who would let him tell them something they didn't know.

If it is a mistake for a man to pretend to universal knowledge, it is nothing short of deliberate suicide for a woman. The most casual observer must have noticed that the girl with an artless air and an inquiring manner, who is a good listener and has little knowledge, can marry seven times to the clever girl's once. She never swells the ranks of the girl bachelors. No man in his senses ever desired to espouse either an encyclopaedia of facts or an arguing machine.

What he looks forward to is the pleasure of enlightening the ignorance of a dear little creature and having her look up to him as the fountain of wisdom and light. When a woman begins every sentence with "John says," it is a guarantee of domestic felicity so strong you can draw money on it at the bank.

Desirable as the dissemination of information is, there's entirely too much of the good thing now. It has left us no listeners. Ignorance is still bliss—in other people—and among the most agreeable of our acquaintances are those who do not know it all and who will let us tell them the things we know.

Western Canada's Industrial Fair. Great Winnipeg. July 29-Aug. 1901. \$35,000.00 IN PRIZES AND ATTRACTIONS. COMPETITION OPEN TO THE WORLD.

FOR PRIZE LIST AND FURTHER INFORMATION, APPLY TO: W. HEUBACH, WINNIPEG, CANADA. GENERAL MANAGER.

J. E. SMITH. Offers for sale three Clydesdale stallions all prize-winners, and fit to head any stud. Two of them imported from Scotland. Three to six years of age. These stallions all of good form. Ample weight, good colors, and choice quality. Were personally selected, and the best that money could buy. In order to make quick sales, will be sold on a very small margin. Intending purchasers of a good useful stallion would consult their own interests to inspect these stallions before buying. Also for sale, fillies and mares all ages. Shorthorn bulls, cows and heifers all ages; sired by Lord Stanley 2nd and Golden Measure (imp.). A useful lot of breeding Shorthorns can be seen at Smithfield. All are kept in breeding trim. Buyers in search of moderate-priced cattle should not fail to see them. Come and see the stock. You will find it just as represented, and prices right. J. E. SMITH, Telephone 4, Smithfield Ave., P. O. Box 271, BRANDON.

Clydesdales and Shorthorns. Young stallions, bulls, and heifers. Herd headed by Best Vet. 11371 and Mint-horn 2481—both bred by Hon. John Dryden and H. Cargill & Son. PRICES ON APPLICATION. D. McBeth, Oak Lake, Manitoba. FOR SALE: Registered "Klondyke" Guernsey Bull. Three years old. Two first prizes in succession at Winnipeg Exhibition. For particulars and price apply to P. D. MCARTHUR, 324 PORTAGE AVE., WINNIPEG, MAN.

SIR ARTHUR. For sale or exchange—the imported English Yorkshire Coach-stallion, "Farndale Hero," by Salesman bred by H. Ward, Farndale, Yorkshire, England, and imported by Stericker Bros., Springfield, Ill. A beautiful bay, with black points, no white; 16.2, and weighs 1,150 lbs. A perfect model of a horse, with grand style, bone and substance, good disposition, and has proved himself a sure and excellent stock horse. For further particulars, apply to—A. C. DOUGLAS, BRANDON, MANITOBA.

FARM HORSES For Sale. Clyde and Shire Bred. Prices reasonable per carload. Write High River Horse Ranch, HIGH RIVER, ALBERTA. W. R. Stewart, Meadow Creek, Alberta, has recently been in Ontario, purchasing stockers, and has a train load of 500 good Shorthorn grade two-year-olds en route to the West, a goodly proportion being in calf heifers, some of which are springers. The North-eastern Stock Growers' Association will hold their annual meeting at Yorkton, June 29th. Capt. Buchanan, Yorkton, has recently imported from Ontario three Clydesdales, a stallion and two fillies; three Shorthorns, two bulls and a heifer; and some sheep. Thus the good work goes on. J. M. Gardhouse, Highfield, Ont., has sold King of the Clydes, a winner at Toronto Spring Stallion Shows of 1900 and 1901, to Jas. Yale, for Hon. Thos. Greenway, Crystal City, Man. PLEASE MENTION FARMER'S ADVOCATE.

NORWOOD BRIDGE POULTRY YARDS.

EGGS FOR HATCHING. White Wyandottes, White Rocks, Houdans...

Joseph Wilding, Prop., Winnipeg, Man.

STEAMSHIP Tickets

If you are going to the Old Country, or sending for your friends, apply to our nearest railway or ticket agent...

Steamers leave Portland, Maine, every Saturday; St. John, every Wednesday; New York, every Wednesday and Saturday.

W. P. F. CUMMINGS, General Agent, C. P. R. Offices, WINNIPEG.

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Asbestos Roofing

Is Reliable, Durable, and Economical.

"GIANT" ASBESTOS ROOFING, \$3.50 3 ply, price per square, complete...

"BLACK JACK" ROOFING, 3 ply, price per square, complete \$3.00

LIBERAL DISCOUNTS TO LARGE BUYERS.

ROBT. BLACK, 131 BANNATYNE ST., WINNIPEG.

The Gold Standard Herd.



I am offering for sale a number of nice young sows in farrow, also three nice lengthy September boars...

J. A. MCGILL, NEEPAWA, MAN.

TWIN GROVE FARM.

Young Yorkshire pigs, stock boar two years old, and car old sow. Prices still lower. Also Buff P. Rock cockerels. Write

J. S. LITTLE, Proprietor, Oak Lake, Man.

Good Butter

Windsor Salt makes good butter because it dissolves easily and quickly...

Windsor Salt.

Windsor Salt Co., Ltd.

Family Knitter



Cheapest, Simplest, Best. Price, \$8.00.

Write for circular. Dundas Knitting Machine Company, DUNDAS, ONTARIO.

GOSSIP.

J. H. Stanton has been placed in charge of the Neepawa Creamery for the season.

The National Creamery Co., Winnipeg, is turning out 800 lbs. of butter a day.

His Majesty the King recently decorated Mr. William Tait, his land steward, with the Victorian Order. Mr. Tait, who manages the Royal farms at Windsor, has, as our readers know, been very successful with the late Queen Victoria's cattle at the various shows in Great Britain.

Stallions are nearly all at their route stands, in good condition for the season's work. Erskine Lad, Aberdeen and Pracha were seen at the Beaubien stables, Brandon, recently, and from the inquiries made, the stud demands on these noted horses are likely to be heavy.

A visit to the abattoir and cold-storage plant of Gordon & Ironsides was made by the Advocate staff recently. The daily capacity is 200 head of cattle and 60 head of hogs...

The Spring Stallion Show at Regina brought out several pure-breds, and a good crowd of people. The scrub or unpedigreed stallion is now debarred from competition at the Regina Show...

The J. Y. Griffin Co. are about to enlarge their pork-packing plant to accommodate the rapid increase in their business. A recent visit showed a consignment being made ready for Nelson, R. C., smoke-houses. A number of hogs were noticed in the pens, of Berkshire, Yorkshire and cross-breeds...

Alex. Galbraith has been successful in disposing of several of his stallions recently shipped in to Winnipeg in charge of his manager, Jas. Smith. That good colt, Brocken, mentioned in our "gossip" of April 20th, goes to a Holland syndicate, who will stand him in the district where his good feet, limbs and general get-up will no doubt be appreciated by the horse-breeders of that district...

MORE HIGH-CLASS SHORTHORNS AND A CLYDES DALE STALLION FOR MANITOBA.

Mr. James Yule, manager of the Prairie Home herd and farm of Hon. Thomas Greenway, at Crystal City, who had been for some time laid up by a severe illness, has, we are glad to know, so far recovered as to have been able to make a trip to Ontario, and has succeeded in securing a half-dozen choice Shorthorns to add to the already strong herd at Prairie Home...

From the herd of J. & W. R. Watt, Salem, was secured the grand red 2-year-old heifer, Matchless 20th, by imp. Royal Sailor. She was the second prize heifer in the great class of yearlings at Toronto last year, and at London the following week was placed first over her half-sister that won first at Toronto...

LARGE USERS OF CREAM SEPARATORS

Every large user of separators in the country is now using and buying De Laval machines exclusively. Nearly all have tried various "cheaper" separators and cast aside thousands of dollars' worth of them.

The dairy or farm user may well profit by experience of such large users. The difference between a superior and an inferior separator is just as material on the farm as in the creamery.

Send for a 20th CENTURY catalogue and see for yourself what the big users of separators are doing.

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The Winnipeg Creamery and Produce Co., LIMITED.

CAPITAL, 50,000 DOLLARS.

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TO FARMERS:

Dairy butter promises to be cheaper than ever. It will pay you to send your cream to the Winnipeg Creamery, which is the OLDEST, LARGEST and BEST EQUIPPED central creamery in the Province.

We guarantee AN HONEST TEST, AND AS MUCH BUTTER AS YOU CAN MAKE YOURSELVES.

Never mind the distance; we pay transportation, and are getting cream within a radius of 250 miles around Winnipeg.

FARMERS, BEWARE!

Inquire into the financial standing of a creamery before you send your cream to any of them. A large number of farmers have not yet been paid for cream sent last summer to UNRELIABLE creameries.

Send Us Your Eggs Also.

ASK FOR OUR CREAMERY PAMPHLET, AND FOR FULL PARTICULARS ADDRESS TO

The Winnipeg Creamery and Produce Company, Limited, 236, 238, 240 KING STREET, WINNIPEG.

The Modern Way to Destroy Sheep Ticks is By the Use of

INSTANT LOUSE KILLER



WHEN you shear your sheep, dust the lambs with INSTANT LOUSE KILLER. It's a powder which the sun cannot readily evaporate. That's why one application is all that is necessary. It sticks in the wool and kills the ticks that hatch after the first application.

For these reasons it is better and cheaper than a dip; besides, there is no stop, no muss, no danger.

POUND CAN, PERFORATED TOP, 35 CENTS.

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Yorkshires. Boundary Herd of Poland-Chinas and Model Tamworths.

Two choice fall litters ready to ship - one from the 1st prize yearling sow at Winnipeg and Brandon Fairs in 1900. Also a few choice boars fit for service and soaks ready to breed. Address

FOR SALE: Three sows due to farrow in April and first week in May. Also looking orders for spring pigs sired by Klondike, Gold Dust, and Dayfield Pride, and out of such model dams as Lady Sanders, Copper Green, Biceps Star, and Carry Nation, at prices that will suit you.

King Bros., Wawanesa, Man. W. L. TRANN, CHRYSTAL CITY, MAN.

PLEASE MENTION FARMER'S ADVOCATE.

MAPLEWOOD HACKNEY STUD.

PROPERTY OF FREDERICK C. STEVENS, ATTICA, NEW YORK.

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The magnificent **LANGTON PERFORMER**, the peerless **CLIFTON 2nd**, and the sensational **FANDANGO**, all in service for the coming season.

Magnificent young Stallions and Mares for Foundation Stock,

sired by the above champions, and out of mares equally famous, now offered for sale. MAPLEWOOD is truly "THE HOME OF THE CHAMPIONS."

FOR FURTHER PARTICULARS, ADDRESS:

E. T. Gay, Manager, Attica, N. Y.

The Horses that made Janesville Famous.

For twenty years past **Janesville** has been associated with all that was high-class in the line of horses, and the name of "**GALBRAITH**" is familiar as a household word to every horse breeder of any note on this continent. The undersigned respectfully invites an inspection of his present stock of

CLYDESDALES,

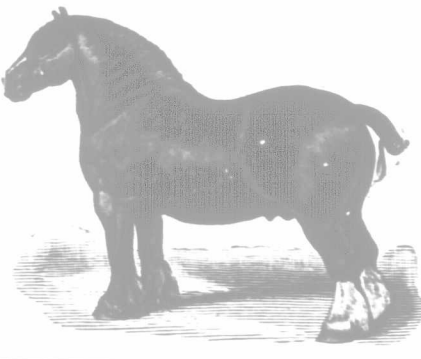
which are believed to be fully equal to the best ever maintained during the palmy days of the business. Ample size, superior breeding, great individuality, moderate prices, and the best of guarantees, are among the inducements offered buyers. An assortment of **Percherons**, **Shires**, **Suffolks** and **Hackneys** also on hand. The only place where the best of all the breeds can be compared alongside each other. Prominent prizewinners at the recent International Live Stock Show at Chicago. Send for catalogue.

Branch barn at **Woodstock, Ont.**, in charge of **S. P. Thompson, agent.** Call and see the horses there.

ALEX. GALBRAITH, JANESVILLE, WISCONSIN.



CLYDESDALE STALLIONS FOR SALE.



A High-class Lot, of Good Size and Quality, and of Most Fashionable Breeding.

Parties desirous of securing high-class horses will do well to see these or write us before purchasing.

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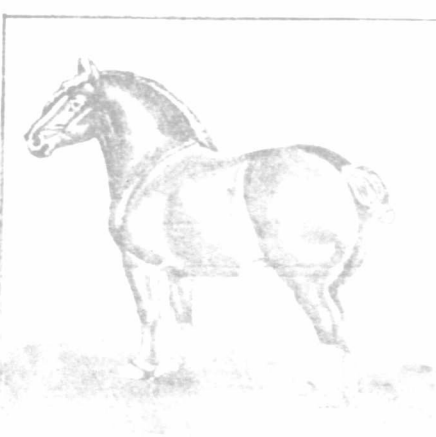
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THE HOME AND HEADQUARTERS OF THE WINNERS. The oldest, largest and most complete collection of Clydesdales in America. Established in 1871, and has been the champion stud ever since.

27 FIRST AND 9 SECOND PREMIUMS, INCLUDING 7 GRAND SWEEPSTAKES.

At the recent leading Canadian shows—Toronto and Ottawa—being three times the number won by all competitors. Our animals are of immense size, good quality and action. Prices moderate. Terms to suit customers. Visitors cordially invited. Correspondence solicited.

CLAREMONT IS 25 MILES EAST OF TORONTO, ON THE C. P. R.



LATELY IMPORTED A FRESH LOT OF

Glydesdale Stallions,

including 2 sons and grandsons of many of the best stallions of the show and winners and sires of champions. All imported from the best studs in England and America. They are of immense size, good quality and action. Prices moderate. Terms to suit customers. Visitors cordially invited. Correspondence solicited.

ROBERT GRAHAM, Reginald P. O., Ont.

Please Mention the Farmer's Advocate.

GOSSIP.

T. S. Cooper, Coopersville, Pa., will sell at auction, on May 30th, at his farm there, 35 imported Jerseys, personally selected on the Island. They are said to be an exceptionally good collection.

Hon. Sydney Fisher, Minister of Agriculture, sails from Montreal for England on May 18th, to be absent about two months. He will make an effort to have the scheduling of Canadian cattle removed, will interview the War Department re the purchase of Canadian horses, visit the Glasgow Exhibition, and make purchases of some pure-bred stock for the Experimental Farms.

Mr. Robt. Miller, Stouffville, Ont., announces in an advertisement that he will soon sail for Great Britain, and will be pleased to accept commissions to import pure-bred stock for those desiring such. Mr. Miller's experience and training well fits him for making good selections, as he is regarded as one of our very best judges. See the ad. for his English address.

The entire flock of Cotswold sheep belonging to the estate of the late Mr. Robert Garne, Aidsworth, Northleach, England, is advertised in our pages for sale by private treaty. This is probably the oldest Cotswold flock in existence, and has been one of the most successful in prizewinning at the Royal and other leading English shows.

Mr. W. D. Flatt, Hamilton, Ont., in ordering change of advertisement, writes: "I have for sale, privately, the red yearling imported Short-horn bull, Singapore, got by the Marr-bred Missie bull, Golden Star, by Golden Ray, and out of the Cruick-shank Secret cow, Sensation 2nd, by the Sittytown bred Vice Chancellor. Golden Star was first and champion at the Royal Northern Show last year. We have also for sale a very good Canadian-bred bull fit for service."

The Western live-stock interests are being well looked after by J. A. Turner, Millarville, Alta., as far as the introduction of new blood for horse breeding is concerned. His recent importation included the good Clydesdale mare, Princess Patrick, a winner at Mimosota and Chicago, and several stallions, notably Prince of Claremont, by Simon Yet, a colt with lots of quality and good limbs; Diamond Prince, a black, the making of a stylish draft horse, and Lord Graham, a compact, strong-boned fellow, both of an age, are desirable colts; Charming Boy, by Lord Charming, is descended from Prince of Wales, his full brother was a Toronto and London winner in 1900; Charming Prince, a fine dark brown colt, by Lord Charming, out of Sonie Lass, the Clydesdale matron so often a winner for the Sorlys in the Eastern show-rings. It is hardly necessary to say that Mr. Turner banks on this colt's future. Charming Spire another Lord Charming, out of the same mare as Lord Grandeur. Sales have been good; Clifton, a Graham Bros. (Claremont) horse, three years old, going to Chas. Perrenoud, Cochrane, Alta.; General Duke, the second prize two-year old at Winnipeg last year, to A. T. Schneider, Weta-kiwin, and to E. G. Robinson, Elbow Park Ranch, Calgary; Prince Grandeur, a second prize horse at Winnipeg, and the Hackney, Woodlands Performer, a strong-boned, handsome horse.

BOOK REVIEWS.

Any book reviewed in this department may be ordered through this office, at the price stated.

Ed. Geers' Experience with Trotters and Pacers. Admirers of the light harness horse may all take off their hats to Ed. Geers, the trainer, fitter and driver, to whom the world is largely indebted for the low records attained for the pacer during the last decade. Ed. Geers has produced a book, not all by his own pen, but the thoughts, experiences and advice contained are his, and are given with a modesty and honesty that makes him your friend at once. The work gives a general description of the most noted horses he has driven, together with a brief history of his life in Tennessee, as far as it concerns his professional career. It also contains some useful advice in conditioning and caring for horses during preparation and the racing campaign. It is clearly brought out that Geers relies most on the horse and himself, and least on mechanical contrivances. The book is a valuable acquisition to the horse literature of the day and should be in every light-horseman's library. It is not only helpful but entertaining, liberally illustrated and attractively and handsomely bound. The price of the book is \$2.00, for which it may be obtained through this office. We will grant it as a premium for securing a new yearly subscription to THE FARMER'S ADVOCATE for \$4.00 cash.

Clydesdales and Ayrshires

Imported and home-bred. Also Dorset, Horned sheep, and the leading breeds of poultry.

ROBERT NESS & SONS, Howick, Que.

4 Imp. Clydesdale Stallions

From such well known sires as Sir Edward Clarke, Prince Roberts T.C., Prince Alexander, etc.

2 Imp. Shorthorn Bulls
4 Bulls Imp. in Dams
2 Canadian-bred Bulls.

2 Imp. Cows and Heifers
7 Canadian-bred Cows and Heifers.

GEO. ISAAC & BROS., BOMANTON, ONT.

FOR SALE.

Several sets of 808, 815, and 816, also some sets of 817, 818, and 819, all of which are of the best quality and are well adapted for the purpose. They are all of the same age and are in the best of health. They are all of the same breed and are all of the same color. They are all of the same size and are all of the same quality. They are all of the same price and are all of the same value. They are all of the same name and are all of the same fame. They are all of the same fame and are all of the same name.

THOS. GOOD, Richmond, P. O., Ont.

REMARKABLE SUCCESS

Of a New Catarrh Cure.

A large and constantly increasing number of the American people are catarrh sufferers. This is not entirely the result of our changeable climate, but because modern investigation has clearly shown that many diseases known by other names are really catarrh. Formerly the name catarrh was applied almost exclusively to the common nasal catarrh, but the throat, stomach, liver, bladder, kidneys and intestines are subject to catarrhal diseases, as well as the nasal passages.

In fact, wherever there is mucous membrane there is a feeding ground for catarrh.

The usual remedies, inhalers, sprays, douches or powders, have been practically failures, as far as anything more than temporary relief was concerned, because they simply dry up the mucous secretions, without having the remotest effect upon the blood and liver, which are the real sources of catarrhal diseases.

It has been known for some years that the radical cure of catarrh could never come from local applications, but from an internal remedy, acting on the blood and expelling the catarrhal poison from the system.

A new internal preparation, which has been on the market only a short time, has met with remarkable success as a genuine, radical cure for catarrh.

It may be found in any drug store, sold under the name of Stuart's Catarrh Tablets, large, pleasant-tasting lozenges, composed principally of antiseptic ingredients, Eucalyptol, Guaiacol, Sanguinaria, Hydrastin and similar catarrh specifics.

Dr. Ainslee, in speaking of the new catarrh cure, says: "I have tried the new catarrh remedy, Stuart's Catarrh Tablets, upon thirty or forty patients with remarkably satisfactory results. They clear the head and throat more effectually and lastingly than any douche or inhaler that I have ever seen, and although they are what is called a patient medicine and sold by druggists, I do not hesitate to recommend them, as I know them to be free from cocaine and opiates, and that even a little child may use them with entire safety."

Any sufferer from nasal catarrh, throat or bronchial trouble, catarrh of the stomach, liver or bladder, will find Stuart's Catarrh Tablets remarkably effective, pleasant and convenient, and your druggist will tell you they are absolutely free from any injurious drug.

Adv't.

British Columbia.

Anyone thinking of farming in British Columbia should write for descriptive pamphlet of farms for sale in the Lower Fraser Valley—the garden spot of the Province.

We have compiled the largest and most complete list of farms, orchards, cattle-grazing and garden lands, and fishermen's allotments in the Province. It has been very carefully selected, and we have a personal knowledge of every property described. Prices range from \$3.00 per acre to \$250.00 per acre, and in extent from 1 acre to 1,000 acres.

In the Lower Fraser Valley, and on the coast lands around Vancouver, we rarely have more than a month of frost and snow at outside, and the thermometer has only sunk to zero twice in ten years.

WRITER
HOPE, GRAVELEY & CO.,
536 Hastings St. VANCOUVER, B. C.

90 HEAD Herefords

High quality, Early-maturing, Prizewinners, Young bulls, cows, heifers.

The blood of "Corrector," "Eureka," "Ancient Briton," and "Rupert," on an "Anxiety" foundation. Send for illustrated catalogue.

H. D. SMITH, COMPTON, QUE.

R. Mitchell & Son,

Burlington Jet Station, Nelson, Ontario.

Large herd of Scotch and Scotch-topped Shorthorns of the most popular Aberdeen-shire tribes, including 4 imp. bulls, 12 imp. cows and heifers. Also a number of home-bred yearling and two-year-old heifers, and 7 good, thrifty home-bred bulls, from twelve to fifteen months old. Write for catalogue.

Shorthorns FOR SALE:

Yearling and two-year-old Shorthorn heifers, in calf to imp. bull.

G. A. BRODIE, Stouffville Station, Betheda, Ont.

SHORTHORNS:

We are offering, for sale 5 yearling and 2 two-year-old Shorthorn heifers, from 8 months to 1 year of age, including 2 imp. and 3 British-bred. Also 1 imp. and 2 home-bred Shorthorn heifers.

ROBT. GLEN, Owen Sound, Ontario.

I WILL IMPORT

Several sets of sheep. Orders sent to me in care of Messrs. T. C. Colledge, Hill, Shrewsbury, Eng. and I will be glad to give you my personal attention.

ROBERT MILLER, Stouffville, Ontario.

The Massey-Harris Works in Toronto

are now making the immense orders for horse-drawn machinery. The factories are running full speed, and the demand for horse-drawn machinery is increasing. It is now the best time to order your horse-drawn machinery, as the demand is increasing and the price is rising. Write for catalogue.

J. & W. B. Watt, SALEM, ONT.,
(Post and Telegraph Office.)

BREEDERS OF
Clydesdale horses,
Scotch Shorthorn
cattle, Leicester
and Oxford sheep,
Berkshire pigs.

Our SHORTHORN herd was founded over 30 years ago, and contains such tribes as the Village Buds, Matchless, Missies, Mildreds, Stamfords and English Lady, upon which we have employed such bulls as *Barnston Hero* 324, *Young Abbotsburn* 6236, *Challenge* 2333, *Perfection* 9100, *Lord Lansdowne* (imp.) 2712, *Clan Stuart* 14381, *Canada* 19536, *Sittytton Chief* 17090, *Royal Sailor* (imp.) 18359, *Royal George* 28513, *Clipper King* 16293 and *Judge* 23419, all of which have been first-prize winners wherever shown. *Royal Victor* 34681 and *Royal Wonder* 34682, by *Royal Sailor* (imp.), and out of English Lady and Mildred dams, now head the herd, assisted by *Roan Cloud* 31317, by *Lord Gloster* 22935, and out of *Melody* 21992, a descendant of the Buckingham family. We are now offering young bulls, cows and heifers for sale, of Scotch type.

Farm 2 miles from Elora Station, G. T. R. and C. P. R., 15 miles north of Guelph.

HILLHURST SHORTHORNS

THREE COLLYNIE-BRED BULLS IN SERVICE:

Scottish Hero, Joy of Morning, Scottish Beau,
By Scottish Archer. By Pride of Morning. By Silver Plate.

The herd comprises straight Scotch, Cumberland, Gloucestershire, and Canadian strains; bred to produce the best and most economical MEAT and MILK MAKERS.

Shropshire and Hampshire Down Sheep.

M. H. COCHRANE, COMPTON CO., P. Q.,
G.T.R., 117 MILES EAST OF MONTREAL. HILLHURST STATION.



We beg to call your attention to a new and indispensable article in

Barclay's Patent Attachment

FOR THE CURE OF BALKING AND KICKING HORSES.

Will control any vice known to a horse. Invaluable for breaking in colts. Can be adjusted in two minutes, and used with any harness, vehicle or implement. Sent, charges paid, to any part of Canada, with full directions for use, on receipt of price, \$5. Reliable representatives wanted. For further information, address

THE BARCLAY MFG. CO., Brougham, Ont.

Rapids Farm Ayrshires.

REINFORCED BY A RECENT IMPORTATION of 20 cows, 2 bulls, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitions at—

Toronto, London, and Ottawa, in 1900.

Come and see or write for prices.

Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Robert Hunter, Manager

for W. W. Ogilvie Co., Lachine Rapids, Quebec.

The *Weekly Examiner*, of Charlottetown, P. E. I., in its issue of April 26th states that in the list of Government stock farm expenditures the price paid for the Shorthorn bull, officially

reported to have been sold at the Ottawa sale at \$395, was really \$350. To this was added: B. Rogers' expenses—rug and feed—\$12.50; P. E. Island Railway freight on bulls, \$34.57. Total, \$397.16.

ARTHUR JOHNSTON

Greenwood, Ontario, Canada.

HIGH-CLASS SCOTCH SHORTHORNS

(First Importation Made in 1874.)

(My recent importation of 30 head has just arrived home from quarantine. Herd now numbers over 120 head.)

OFFERS FOR SALE:

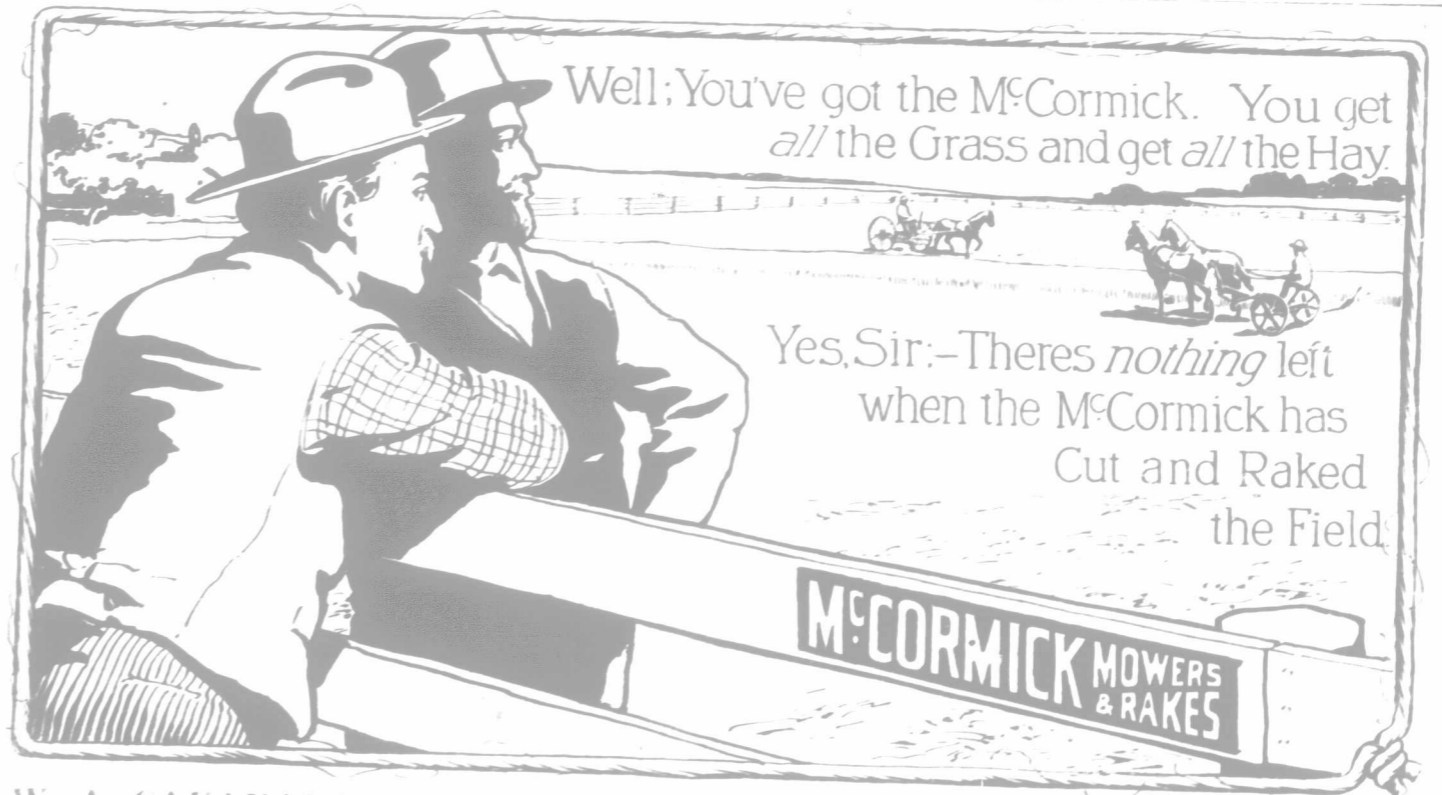
- 40 Imported Cows and Heifers.
- 40 Home-bred Cows and Heifers.
- 11 Imported Bulls and Bull Calves.
- 13 Home-bred Bulls and Bull Calves.

For Sale: 30 Scotch Shorthorn bulls, including 10 imported and 20 home-bred, all of which have been first-prize winners at the leading Scottish shows. For further particulars, apply to

For Sale: 30 Scotch Shorthorn bulls, including 10 imported and 20 home-bred, all of which have been first-prize winners at the leading Scottish shows. For further particulars, apply to

SHORTHORN BULLS AND HEIFERS

For Sale: 30 Scotch Shorthorn bulls, including 10 imported and 20 home-bred, all of which have been first-prize winners at the leading Scottish shows. For further particulars, apply to



Well; You've got the McCormick. You get all the Grass and get all the Hay.

Yes, Sir:—There's nothing left when the McCormick has Cut and Raked the Field.

W. A. CAVANAUGH, Gen. Agt., WINNIPEG, MANITOBA.

W. J. CUMMINGS, Gen. Agt., REGINA, S.-W. TERRITORIES.

P. W. Stanhope, Toronto, Ontario.

PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE

IMPORTANT PUBLIC SALE

Imported and Canadian-bred

SHORTHORNS

The Sale Pavilion, Union Stock-yards, CHICAGO,

JUNE 5th, 1901,

When 60 Head of High-class Cattle will be offered at Public Auction, composed of selections of about equal numbers from the herds of

W. D. FLATT, - - - HAMILTON, ONT.
H. CARGILL & SON, - CARGILL, ONT.
W. C. EDWARDS & CO., ROCKLAND, ONT.
HON. M. H. COCHRANE, HILLHURST, QUE.

These will be representative of each of the herds mentioned. The majority are imported animals from high-class herds in Scotland and England. All are young or in their prime, a considerable number being young cows with promising calves at foot, and heifers in calf to first class imported Scotch-bred bulls. Some excellent young stock bulls, suitable to head first-class herds, will be included.

For catalogues, apply to—

W. D. Flatt, Hamilton, Ont.

On JUNE 4th, at the same place, Mr. Geo. E. Ward, Sioux City, Iowa, will sell 50 Head of Shorthorns.

W. G. Pettit & Son, FREEMAN, ONT.

IMPORTERS AND BREEDERS OF

Scotch Shorthorns and Shropshire Sheep.

OFFER FOR SALE:

- 12 Imported bulls, 12 mos. to 2 yrs. old.
- 5 " " 9 to 12 mos. old.
- 20 " " cows, 3 to 6 yrs. old.
- 15 " " heifers, 2 yrs. old.
- 5 " " " 1 yr. old.
- 6 Home-bred bulls, 9 to 18 mos. old.
- 20 " " heifers, 1, 2, and 3 yrs.

Our imported bulls are now getting in good shape. All our heifers of suitable age are bred to Pure Gold (Imp.), by Cyprus, and Scotland's Pride (Imp.), a Cruickshank Clipper, by Star of Morning.

Catalogues on application. All our imp. cattle were registered in the American Herd Book before the \$100.00 fee for recording was put on.

Burlington Junction Station, Telegraph and Telephone Offices, within half a mile of farm.

SHORTHORNS

SCOTCH IMPORTED.

Young imported cows with calves at foot for sale. A number of the calves are imported in dam.

Some of the families represented in the herd are as follows:

160
Head

AUGUSTAS
CLARAS
NECTARS
GOLDIES
JENNY LINDS
VICTORIAS
MATILDAS
BESSIES
CROCSSES

ROSEBUDS
BRAWITH BUDS
LANCASTERS
MAYFLOWERS
AMARANTHS
BUTTERFLYS
CLIPPERS
EMMAS
BROADHOOKS

MEDORAS
MINAS
VILLAGE MAIDS
BEAUTYS
MISS RAMSDENS
FLORAS
RAGLANS
LUSTRES
GEMS OF THE VALE

160
Head

Herd headed by the Imported Bulls, **GOLDEN DROP VICTOR** and **PRINCE BOSQUET**.

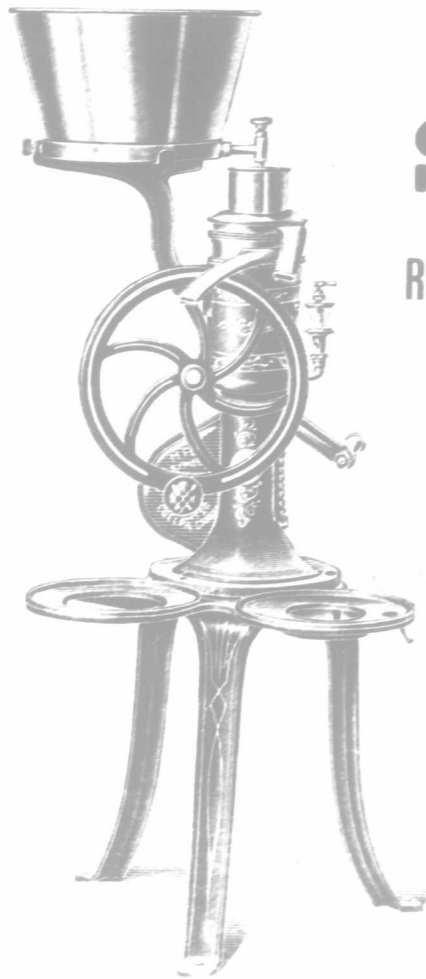
IF INTERESTED, COME AND SEE US, OR WRITE

H. CARGILL & SON,

CATALOGUE FREE.

CARGILL, ONTARIO, CANADA.

The National Cream Separator,



MANUFACTURED BY
THE Raymond Mfg. Co. of Guelph, Can.

ALSO MAKERS OF THE CELEBRATED
"Raymond Sewing Machine."

REPORT FROM WATERLOO COUNTY.

TO THE RAYMOND MFG. CO., GUELPH, ONT.

GENTLEMEN,—I wish to make a statement that should be of some encouragement to your firm just at this time when your Company is investing a large amount of capital in shops and machinery for the purpose of manufacturing the "National" Cream Separators. I bought a "National" in December, 1898, and received some practical instructions at the O. A. College, Guelph, in the way of making good butter and putting it in neat form for market. The first year I had nine cows and sold \$15.00 worth of butter from each cow, besides keeping the house in butter and having the skim milk fresh, sweet and warm for the calves. In 1900 I received higher prices for the butter, and made \$52.00 per cow from 12 cows, or a total of \$624.73. I market my butter in Toronto and Woodstock, and can find ready sale for more than I can make. Although I am a farmer, I have sold 34 "National" Cream Separators since I got mine on, two years ago. The "National" is profitable to a farmer, whether he makes the butter at home or sends the cream to the creamery. I use a Babcock tester, and find the "National" cannot be beat at close skimming. Wishing you success, and hoping you will be able to supply your agents with machines as fast as they need them, I am,

Respectfully yours,
G. J. ZEDER, Mar 10, 1901.

Joseph A. Merrick,

BOX E-3, WINNIPEG, MANITOBA, Gen. Agt. for Manitoba, N.-W. T., and B. C.

PLEASE MENTION FARMER'S ADVOCATE.

Concrete Piggery and Henhouse

OF MR. FRANK LOCKWOOD, DELAWARE, ONT. WITH

Thorold Cement.



THE HENHOUSE.

Wall from foundation to peak, built with THOROLD CEMENT.

THE PIGGERY.

Basement walls built with THOROLD CEMENT.

Read what Mr. Lockwood says:

DELAWARE, ONT., MAR. 16, 1900.

ESTATE OF JOHN BATTLE, Manufacturers of Thorold Cement, THOROLD, ONT.:
DEAR SIRS,—I used your **THOROLD CEMENT** in my building. It gave the best of satisfaction and I recommend it to all who intend building. Both buildings are piggeries. The largest one is 20 x 40 8 ft. high, 12 in. wall next the bank, and 10 in. on other side and both ends. I do not know just how much material I used—have forgotten—but I used 5 to 1 of cement. Could not say just the time I was building it. Had five men, and six part of the time. The small building is 16 x 20, cement wall—11 ft. high at the eaves and extend to gables, walls 9 in. thick. The top story is a henery. Took five men about 7 days to build this one. There are cement floors in both, and cement troughs also. The top story of the largest building is a granary for 20 feet, and machinery the other half. I did not keep count of how much gravel I used, as the buildings are built right on the side of the gravel hill. I supply the township with gravel.
Yours respectfully,
FRANK LOCKWOOD.

ESTATE OF JOHN BATTLE, THOROLD, ONT.
MANUFACTURERS OF THOROLD CEMENT.

GOSSIP.

Messrs. Bawden & McDonell, Exeter, Ont., have purchased from Mr. William Kiddick, Crooklake Hall, Aspatia, for importation to Canada, the well-bred Clydesdale stallion, Life-Member (10080), bred by Mr. John Wallace, Skelton Pasture, Penrith, and got by the dual Cawdor Cup champion horse, Prince of Carruchan (8151), a son of the Merryton Prince of Wales (6753), and never beaten at any show at which he was exhibited since his first appearance in public at the H. & A. S. Show, Dundee, in 1890. The dam of Life-Member was got by the fine horse, Baron Scott (1936), which bred useful stock in Penrith district. His granddam was got by the celebrated Samson (711), the sire of the dams of Darnley (222), Prince of Wales (673), and Old Times (579), and his granddam was by the noted horse, Merry Tom (532), which won the Glasgow premium in 1851, and was one of the finest horses ever seen in Glasgow.

THOMAS RUSSELL'S SHORTHORNS.

When in the vicinity of Exeter, Ont., recently, a member of the ADVOCATE staff visited the Riverside Farm of Mr. Thomas Russell and was shown through his new and extensive stables, which have been laid out with a view to the comfort and secure care of his growing herd of imported and home-bred Shorthorns. Mr. Russell's herd is looking remarkably well, when we consider that shortly after finishing harvest last year, his barns were struck by lightning and burned, with all the feed stored in them. As a result, his accommodations for stock this last winter were meager. Mr. Russell has a strong and select herd of Scotch-bred cattle, and at present is using the imported bull, Red Prince 2005, by Fire King 70429, whose dam is a daughter of Mr. Duthie's noted bull, Star of Morning. Red Prince, as the name indicates, is a dark red, showing a deep, long, symmetrical body on short legs. His calves are coming the right type. Mr. Russell is offering this excellent young bull for sale, also two yearlings by Fragrant Duke, together with a few cows and heifers. The Riverside herd ranks high among the standard Shorthorn herds in Canada, the owner having made several select importations of up-to-date cattle from Scotland, visiting the Old Country in person only two years ago, and having made another importation last year of really choice things. Shorthorns bred in this herd have figured conspicuously as prizewinners at leading Provincial shows of late years, and Mr. Russell is regarded as one of the safest judges of Shorthorns in the Dominion. We cordially commend him and his herd to the consideration of our readers, who will do well to look up his advertisement on this page, and write him for what is wanted or give him a call at his farm, which is only two miles from Exeter station, on the London and Wingham branch of the G. T. R.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS, FROM APRIL 15 TO MAY 1, 1901.

During this period thirty-two such records have been received, thus bringing the total for April to sixty-four. Fifteen full-age cows during these two weeks averaged: Age 7 years 9 months, 21 days after calving: Milk 1126 lbs., butter-fat 14 019 lbs., equivalent butter 80 per cent, fat 17 lbs. 9 ozs., equivalent 83.7 per cent, fat 16 lbs. 6.3 ozs. Three four-year-olds averaged: Age 4 years 3 months 29 days, 12 days after calving: Milk 372.9 lbs., butter-fat 12 163 lbs., equivalent butter 80 per cent, fat 15 lbs. 8.6 ozs., equivalent 85.7 per cent, fat 14 lbs. 8.6 ozs. Eight three-year-olds averaged: Age 3 years 6 months 27 days after calving: Milk 355.6 lbs., butter-fat 12 127 lbs., equivalent butter 80 per cent, fat 15 lbs. 2.5 ozs., equivalent 85.7 per cent, fat 14 lbs. 2.4 ozs. Six two-year-olds averaged: Age 2 years 21 days, 21 days after calving: Milk 277.9 lbs., butter-fat 8 927 lbs., equivalent butter 80 per cent, fat 11 lbs. 2.6 ozs., equivalent 85.7 per cent, fat 10 lbs. 6.6 ozs. A few of the best records of the various ages in detail were as follows: Inka DeKol 3702, age 6 years 9 months 13 days, 15 days after calving: Milk 473.8 lbs., butter-fat 16 119 lbs., equivalent butter 80 per cent, fat 20 lbs. 3 ozs., equivalent 85.7 per cent, fat 18 lbs. 13.5 ozs. Impatient Beauty 3867, age 5 years 1 month 11 days, 16 days after calving: Milk 455.6 lbs., butter-fat 16 059 lbs., equivalent butter 80 per cent, fat 20 lbs. 2 ozs., equivalent 85.7 per cent, fat 18 lbs. 12.5 ozs. Lucy 1963, age 12 years 9 months 24 days, 17 days after calving: Milk 1232 lbs., butter-fat 15 000 lbs., equivalent butter 80 per cent, fat 19 lbs. 9.9 ozs., equivalent 85.7 per cent, fat 18 lbs. 6 ozs. Portland Queen 2671, age 11 years 10 months, 15 days after calving: Milk 1216 lbs., butter-fat 14 926 lbs., equivalent butter 80 per cent, fat 19 lbs. 3.9 ozs., equivalent 85.7 per cent, fat 17 lbs. 11.8 ozs. Dorothy Pauline DeKol Wayne 4523, age 3 years 2 months 5 days, 20 days after calving: Milk 418 lbs., butter-fat 11 572 lbs., equivalent butter 80 per cent, fat 18 lbs. 3.4 ozs., equivalent 85.7 per cent, fat 17 lbs. Inka Mirrored DeKol, age 3 years 7 months 21 days, 11 days after calving: Milk 387 lbs., butter-fat 11 073 lbs., equivalent butter 80 per cent, fat 17 lbs. 9.5 ozs., equivalent 85.7 per cent, fat 16 lbs. 6.7 ozs. Ringwood DeKol 47820, age 2 years 6 months 5 days, 16 days after calving: Milk 345.9 lbs., butter-fat 11 100 lbs., equivalent butter 80 per cent, fat 14 lbs. 5.9 ozs., equivalent 85.7 per cent, fat 13 lbs. 0.2 ozs. Dora Artie DeKol 3491, age 2 years 1 month 19 days, 16 days after calving: Milk 288.6 lbs., butter-fat 8 888 lbs., equivalent butter 80 per cent, fat 11 lbs. 1.8 ozs., equivalent 85.7 per cent, fat 10 lbs. 5.9 ozs. A. W. DeKol Segis Inka 52103, age 1 year 10 months 1 day, 9 days after calving: Milk 272 lbs., butter-fat 8 607 lbs., equivalent butter 80 per cent, fat 10 lbs. 12.1 ozs., equivalent 85.7 per cent, fat 9 lbs. 6.7 ozs. Dora's Gem by 1th 18601, age 2 years 9 days, 16 days after calving: Milk 255 lbs., butter-fat 8 250 lbs., equivalent butter 80 per cent, fat 10 lbs. 1.8 ozs., equivalent 85.7 per cent, fat 9 lbs. 10.6 ozs. Inka Clothilde 51282, age 1 year 11 months 25 days, 8 days after calving: Milk 276.3 lbs., butter-fat 8 295 lbs., equivalent butter 80 per cent, fat 10 lbs. 1.1 ozs., equivalent 85.7 per cent, fat 9 lbs. 9.2 ozs. S. HONR, Superintendent of Advanced Registry.

IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE

BRAIN FOOD

Is of Little Benefit Unless it is Digested

Nearly everyone will admit that as a nation we eat too much meat and too little of vegetables and the grains. For business men, office men and clerks, and in fact everyone engaged in sedentary or indoor occupations, grains, milk and vegetables are much more healthful. Only men engaged in a severe outdoor manual labor can live on a heavy meat diet and continue in health.

As a general rule, meat once a day is sufficient for all classes of men, women and children, and grains, fruit and vegetables should constitute the bulk of food eaten. But many of the most nutritious foods are difficult of digestion, and it is of no use to advise brain-workers to eat largely of grains and vegetables where the digestion is too weak to assimilate them properly.

It is always best, to get the best results from our food, that some simple and harmless digestive should be taken after meals to assist the relaxed digestive organs, and several years' experience have proven Stuart's Dyspepsia Tablets to be a very safe, pleasant and effective digestive, and a remedy which may be taken daily with the best results. Stuart's Dyspepsia Tablets can hardly be called a patent medicine, as they do not act on the bowels nor any particular organ, but only on the food eaten. They supply what weak stomachs lack, pepsin diastase, and by stimulating the gastric glands increase the natural secretion of hydrochloric acid.

People who make a daily practice of taking one or two of Stuart's Dyspepsia Tablets after each meal are sure to have perfect digestion, which means perfect health.

There is no danger of forming an injurious habit, as the tablets contain absolutely nothing but natural digestives: cocaine, morphine and similar drugs have no place in a stomach medicine, and Stuart's Dyspepsia Tablets are certainly the best known and most popular of all stomach remedies.

Ask your druggist for a fifty-cent package of Stuart's Dyspepsia Tablets, and after a week's use note the improvement in health, appetite and nervous energy.—Adv't.

6 Shorthorn Bulls 6

Also cows in calf and yearling heifers. All of straight Scotch breeding. om SHORE BROS., WHITE OAK, ONT.

JAS. DORRANCE, SEAFORTH, ONTARIO.

BREEDER OF Shorthorn Cattle and Berkshire Pigs Young stock always for sale. om

SPRINGBANK FARM.

Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale. om JAS. TOLTON, WALKERTON, ONT.

FOR SALE.

SHORTHORNS—Young bulls and heifers. Leicesters and Southdowns, both sexes. Berkshires—Young boars fit for service, young sows in pig and ready to breed. Also choice seed peas. Write for catalogue or come and see.

E. JEFFS & SONS, Bond Head.

SHORTHORNS FOR SALE

Young stock of both sexes, reds and roans.

JOHN R. HARVIE, ORILLIA, ONT.

J. R. McCallum, Iona Station, Ont.

Offers young SHORTHORN BULLS and HEIFERS, of choice breeding, at reasonable prices. Iona Stn. on M.C.E., half a mile from farm.

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. Prime Minister at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON, DENFIELD, ONT.

FOR SALE:

SHORTHORNS AND YORKSHIRES

4 SUPERIOR Scotch-bred Shorthorn bulls, 12 to 14 months; 1 two-year-old heifer of the best strains; and cows with calves at foot. Also a superior lot of Yorkshire boars and sows from 3, 5 to 7 months old. Orders booked for spring pigs. Pairs and trios supplied not akin.

H. J. DAVIS, BOX 290. om WOODSTOCK, ONT.

SHORTHORNS (imported)

3 BULLS—1 two-year-old, 2 one-year-olds. A few cows and heifers. om THOS. RUSSELL, EXETER P. O.

High-class Shorthorns and Yorkshire Pigs.

Just now three 10-month bulls, got by imp. Sirius 1521, great big massive bellows with lots of flesh and quality—away above the average. Also a few superior young cows, 10, 12 and 15 or 16 heifers. We are looking orders now for the spring trade. Can ship same in any season.

JAS. MARKER, GOBLE'S, ONT. Goble's station, 1 1/2 miles east of Woodstock, 2 miles from fat stock met. om

Send for Illustrated Price List.

Advertisement for Wilkins & Co. featuring various farm tools and equipment. Includes images of a brass bucket spray pump, a farmer's anvil and vise, bluestone for spraying trees, farm and church bells, wrenches, fence wire-cutting pliers, farm neck-yokes, and horseshoe nails. Text describes the quality and uses of these items.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Topman—1787—, champion at Winnipeg, Toronto, London and Ottawa, 1899. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply

T. E. ROBSON, Ilderton, Ont.

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS—Grand young bulls and heifers for sale. We have the first-prize milking strains. Imported Knuckle Duster and imported Sir Willfred in service.

LEICESTERS—First prize flock of Canada for past six years. Imported and home-bred for sale.

ALEX. W. SMITH, MAPLE LODGE P. O., ONT.

T. DOUGLAS & SONS, STRATHROY, ONT.

SCOTCH SHORTHORNS.

100 HEAD TO SELECT FROM. Offer for sale 8 young bulls, and cows and heifers of all ages, of the most approved breed bred to (imp.) Diamond Jubilee = 28861 =, at head of herd. Farm one mile north of town. om

JOHN DRYDEN, BROOKLIN, ONTARIO.

OFFERS SIX YOUNG SHORTHORN BULLS, ready for service, at reasonable prices. Strong, active, masculine. om

GOOD QUALITY AND CHOICE BREEDING.

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.

We are offering 8 young bulls for sale, of first-class quality, and AI breeding. om Wm. Grainger & Son, - London, Ont.

Live Stock Labels

Send for circular and price list. E. W. James, Bowmanville, Ont.

Aberdeen - Angus Cattle.

Several thoroughbred bulls for sale. Apply to the stock AGER, Bowmanville, Ont. om

C. W. HARTMAN, Clarkston, Ont.

Maple Glen Stock Farm.

The home of officially tested, Advanced Registry, dairy test and showing-winning herd of SYLVIA HOLSTEINS. A grandson Sylvia now for sale. Price is in keeping with breeding and performance. om

C. J. GILROY & SON, Brockville, on C.P.R. or G.T.R. Glen Bell, Ont.

WHERE ARE THE BEST HOLSTEINS?

Have you read of Lalith Pauline DeKol's wonderful record? Her sire was bred here. Have you read of Susie DeKol's record? She was sired by a son of our great cow, DeKol 2nd. We can give our customers more of the blood of the greatest producers than can be found in any other herd. Look over official reports and see where the sires of the great producers were bred. We have over 30 young bulls for sale, and a large number of females. Animals shipped to Canada are accompanied by certificate of health, and are subject to no duties or quarantine. If you want the best, write or visit.

BROOKSIDE HERD, H. Stevens & Sons, Lacona, Oswego Co., N.Y.

Maple Hill Holstein-Friesians

SPECIAL OFFERING:

Three very fine bull calves, 2 to 11 months old. Also several extra good young cows and heifers. Prices moderate. Visitors welcome. om

HARRISBURG STN., G.T.R. G. W. CLEMONS, GALT STN., C.P.R. ST. GEORGE P. O., ONT.

Choice Jerseys

FOR SALE.

Finest Butter Stock yet Offered.

The first bull calf to be dropped this month is already sold, and I have sometimes been obliged to RETURN CHEQUES, as others had been sent in quicker. Recent sales from Manitoba to Maryland, from Atlantic sea-coast to Western Canada.

MRS. E. M. JONES, Box 324. om BROCKVILLE, ONT.

BRAMPTON JERSEY HERD.

For sale: 2 yearling bulls, 8 bull calves, sired by Brampton's Monarch (imp.), and out of first-class cows. A number of cows and heifers in calf. Also some unregistered cows and heifers, fresh-calved and springers—grand family cows. om

GLEN ROUGE JERSEYS.

WILLIAM ROLPHE, Markham, Ont., offers twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right.

Ayrshire Bulls: Write to J. YUILL & SONS, Carleton Place.

for special prices on Ayrshire bulls from 14 years to 6 months. Four over 15 months, fit for service, from special milking stock. Sired by prize bull, Jack of Burnside—1681—, also females of all ages. Shropshire sheep of all ages; a number of fine ram heads; Berkshire pigs of either sex, of the best bacon type. B. P. Rocks. om

A \$3000. STOCK BOOK FREE

We will Mail You a Copy Free, Postage Prepaid, if You Answer 3 Questions

1st. Did you ever use "International Stock Food" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs? 2d. How many head of each kind of stock do you own? 3d. Name this paper.

THIS BOOK CONTAINS 183 FINE, LARGE, COLORED ENGRAVINGS OF HORSES, CATTLE, SHEEP, HOGS, POULTRY, ETC.

DESCRIPTION: The engravings were made by our own artists and cost us over \$3000. The book is 9 1/2 x 15 1/2 ins. and the cover is a beautiful livestock picture printed in 6 brilliant colors. In the Horse Department are fine engravings of Imported Messenger, Mambino, Abdallah, Rydsky's Hambletonian, Nutwood, 2185, Robert J., 2911, Directum, 2167, Nancy Hanks, 298, Star Pointer, 1567, Johnson, 2087, George Wilkes, 222, Atlas, 2138, and many others. It contains 20 large engravings of draft and coach breeds. Also the largest 4-year old horse in the world, weighing 2400 lbs. and 19 hands high. He is owned by International Food Co. and they also own the following stallions: Nutwood, 2217 by Nutwood, 2185; International King by St Vincent, 2135; International Prince by Island Wilkes, 2135, besides the other breeds at the Trans-Mississippi Exposition. Also the largest cow in the world, weighing 2970 lbs. and 6 feet tall. Also largest 3-year old steer, weighing 3100 and 6 feet tall. Both owned by International Food Co., Minneapolis, Minn. In Hog Department are engravings of the different breeds and the latest scientific facts in regard to Hog Cholera. Also the largest hog in the world, weighing 1621 lbs. In Sheep Department are extra good engravings of the prize winners, of the

different breeds, at Trans-Mississippi Exposition. In Poultry Department are engravings of the different breeds. Your special attention is called to the fact that the book also gives a description and history and other valuable information of the finest breeds of Horses, Cattle, sheep, Hog and Poultry. The Veterinary Department is very practical and contains extra fine veterinary illustrations. It gives the different diseases for Horses, Cattle, Sheep, Hogs and Poultry and tells what to do for each. The Veterinary Department will be a great addition to your live stock library and will save you hundreds of dollars. Our 2000 dealers give away this book with sales of "International Stock Food" in 25lb. pails. You cannot buy a book for \$3.00 that will give you as much practical information and as many fine colored engravings of noted animals. WE WILL GIVE YOU \$1.00 WORTH OF "INTERNATIONAL STOCK FOOD" IF BOOK IS NOT AS STATED. "International Stock Food" is endorsed by over 100 leading "Farm Papers" and is used and endorsed by over 50,000 stockmen and farmers. Established 12 years and has the largest sale. Included in the United States Government exhibit at Paris and won the highest award and medal at that Exposition, 1900. The editor of your "Farm Paper" will tell you that "International Stock Book" is one of the best illustrated books ever published. Most of the illustrations are of noted animals.

Largest Stock Food Factory in the World. Capital Paid in \$200,000.00. Answer the 3 Questions and Write for this Book to INTERNATIONAL FOOD CO., MINNEAPOLIS, MINN., U. S. A.

EARLY BEETS

constitute an exceedingly profitable crop when grown rapidly and shipped early to the Eastern markets. Best results are secured by the liberal use of **Nitrate of Soda**, which forces them to early maturity and produces beets of a superior quality. Send for our free pamphlets and list of dealers in **Nitrate of Soda to John A. Myers**, 12-R John Street, New York City, N. Y.

A LOST COW.

That can never happen where the cows wear our patented **Swiss Cow Bells**. Made from finest quality of Swiss Bell Metal, they are light but strong and lasting. Musical in tone and extreme. They add to the appearance of herd besides making them tame and tractable. 4, 5 and 6 in. in diameter. Strap with each. Direct in sets of 3 to introduce. Circulars on Cows, Sheep and Turkey Bell Bells. **Bevin Bros. Mfg. Co., East Hampton, Conn.**

CHOICE AYRSHIRE BULLS.

OFFER: 2 bulls, 12 months old; 2 bulls, 8 months old; and 3 bulls, from 3 to 5 months. All off imported and heavy milking stock. **W. W. BALLANTYNE, STRATFORD, ONT.** "Neidpath Farm" adjoins town, on main line G.T.R.

Maple Cliff Dairy and Stock Farm.

BREEDERS OF AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TAMWORTH PIGS. FOR SALE: 5 bull calves, a few heifers; young pigs, pairs not akin; 2 boars, 1 month old; young pigs. Farm adjoins Central Experimental Farm, Ottawa. **R. REID & CO., Hintonburg, Ont.**

TREDINNOCK AYRSHIRES

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchinrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars, address **JAMES BODEN, Mgr., St. Anne de Bellevue, Quebec.** Farm close to St. Anne Station, Quebec. G.T.R. & C.P.R., 20 miles west of Montreal.

EUROPEAN ADVERTISEMENTS.

FAMOUS ALL OVER THE WORLD **ALFRED MANSELL & CO., LIVE STOCK AGENTS AND EXPORTERS, SHREWSBURY.**

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to **ALFRED MANSELL & CO., Shrewsbury, England**, or to our American representative, **Robert Miller, Stouffville, Ont., Canada.**

W. W. Chapman,

Secretary of the National Sheep Breeders' Association. Secretary of the Kent or Romney Marsh Sheep Breeders' Association. 1015 South Main Street, St. Louis, Mo.

PLEASE MENTION FARMER'S ADVOCATE.

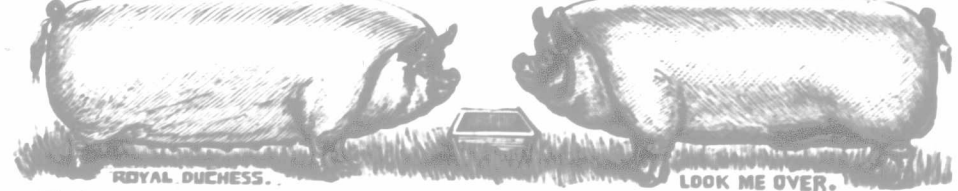
GOSSIP.

SHORTHORN BULLS FOR ARGENTINA.

Mr. Alex. Bruce, son of Mr. Robert Bruce, of Dublin, Ireland, acting in conjunction with Mr. William Nelson, of Liverpool, recently visited Canada and the United States, with a view to the purchase of a number of high-class Shorthorn bulls for shipment to the Argentine Republic, South America. Mr. Bruce has succeeded in getting together 11 superior bulls, selected from nearly as many herds, but of nearly uniform character and quality, the whole number constituting probably the best collection that has ever left the shores of America in one shipment. Space will not admit of extended reference to each, but brief mention may be made of the individuals comprised in the exportation. And first may be mentioned the roan 2-year-old *Consul*, imported from Scotland last year by Mr. W. D. Flatt, Hamilton, and used by him as one of his principal stock bulls during the past winter and spring. He is a bull of choice quality and character, and was bred by Mr. Fletcher, of Rosehaugh, from the Kinellar Claret tribe, his sire, Watchword, a son of the great Scottish Archer, being bred by Mr. Duthie, and his dam a member of the favorite Wimple family. *Consul* was first prize winner as a yearling at Edinburgh, first and second at the Provincial Union at Crief, and second at the Highland Society's Show, where he was general favorite for first place. The Argentine breeder who secures this bull may be considered fortunate, as his departure from our shores is a distinct loss to the Dominion. He is the highest priced bull that has been imported in many years in North America, and even at this Mr. Flatt would not have parted with him had he not been anxious that the shipment should be of choice one. *Fearless Archer*, a massive red 4-year-old son of Scottish Archer, and bred by Mr. Duthie, was the highest priced bull and the second highest priced animal at the great combination sale in Chicago, on April 5th, this year. He is a grand specimen of the breed, just such as one would choose for a stock bull, and he has left numerous high-class progeny in the hands of his importer, Mr. J. F. Prather, of Illinois. *Governor*, a red-roan 2-year-old of great scale and substance, weighing over 2,300 lbs. at 2 1/2 years old, thick-fleshed and of excellent quality, was bred by Mr. W. R. Elliott, late of Hespeler, and purchased from Messrs. Eastwood Bros., Mimico, in whose hands he was successfully used and exhibited. He was sired by the imported Guard-man, bred by Mr. Duthie, and who was also the sire of the American champion bull, St. Valentine. *Lord Champion* is a smooth, symmetrical, short-legged and thick-fleshed bull, of choice character, purchased from Messrs. Geo. Harding & Son, Waukesha, Wisconsin, in whose hands he has had a very successful career as a prizewinner. He is a son of Baron Cruickshank 3rd, who was got by the Collyrie-bred imported Baron Cruickshank, out of the Sittlyon-bred Victoria 7th, by Dunblane, and is one of the very best bulls in the consignment, and cost a long price to obtain. *Pure Gold* is a red 2-year-old Cruickshank Brawith Bud bull, bred by Messrs. McRae, Kinbrachie, Ross-shire, Scotland, and imported to Canada by Messrs. W. G. Pettit & Son, Freeman; sired by Cyprus, a Cruickshank bull, got by the famous William of Orange. He is lengthy, low-set, and of good substance. Three very superior 2 and 3-year old imported Scotch-bred bulls, whose pedigrees have not reached us at this writing, were secured from Mr. Robert Miller, Stouffville. They are *Rob Roy*, *Prince Victor*, and *Princely Victor*, the latter a lengthy, straight, smooth, and choicely-bred red bull, that has been in service at the Michigan Agricultural College, where he had been sold by Mr. Miller, and where, it is said, he proved a valuable sire. *Lord of the Manor*, bred by Mr. Jno. Gibson, Denfield, and purchased from Capt. T. E. Robson, Iderton, is a massive and well-fleshed roan 2-year-old son of Aristocrat, bred by the Messrs. Watt, of Salem, and sired by the Uppermill Red Lady bull, Royal sailor, bred by Mr. W. S. Marr, and the dam of Lord of the Manor is one of the Kinellar Roan Betty tribe. *Trout Creek Burmington*, a straight, smooth, red 2-year-old bull, bred by Mr. Flatt, at Trout Creek Stock Farm, was purchased from Mr. Jas. Gibb, Brookdale. He is a Kinellar Crimson Flower, sired by Vice Regent, a son of imported Aberdeen, a Toronto first-prize winner, and his dam by the imported champion Cruickshank bull, Vice Consul. *Rossy Lad*, a smooth-bred bull, bred by Mr. Philo L. Mills, London, England, and imported in dam by Mr. Flatt, is a thick, sappy son of Solferino, son of the English Royal champion, Marengo, and is one of the best of his famous future before him. He was sired at the International Exposition at Buenos Ayres, next year. The champion who carried him from New York last year, was one of the efficient charge of Mr. Weldon W. Dublin, who has had 12 years' experience in the care of such animals. We have no doubt, but that they will be well cared for. We have no doubt, but that they will be well cared for.

Summer Hill Herd

HEADQUARTERS FOR THE IDEAL BACON HOG AND EASY FEEDERS.



The largest herd of imported and Canadian-bred Yorkshires in America. Out of 121 exhibits at the leading shows in '99 and 1900, including Toronto and London, we gained 116 awards. Expert judges both at London and Toronto were unanimous in pronouncing our herd far superior to that of our strongest competitors. Won most of the best prizes offered, including first prize for best pen of pure-bred bacon hogs, also grand sweepstakes over all breeds in a class of 13 entries. The foundation of our herd was laid by personally selecting the choicest stock from the most noted breeders in England and Scotland. We have the ideal bacon type—size without coarseness, and easy feeders. Pigs of all ages for sale at moderate prices. Write us for particulars. Telephone, Millgrove, Ont. Telegraph 254 Bay St. E., Hamilton, Ont. **D. C. Flatt & Son, Millgrove, Ont.**

Fairfield Lincolns.

The partnership heretofore existing between J. H. Patrick and Eugene Patrick, of Iderton Ontario, as to the management of Fairfield Stock Farm, has been dissolved. J. H. Patrick again resumes full management at Fairfield, and Eugene Patrick taking charge at Lincoln Grove, Tevora, Idaho. **J. H. & E. PATRICK, Iderton, Ont.**

BROAD LEA OXFORDS.

We have at present a number of good ewe and ram lambs. Also some choice young ewes dropping lambs in April for sale. Correspondence solicited. Visitors welcome. **Henry Arkell & Son, Teeswater, Ont.**

Phone and telegraph, Teeswater, Ont.

W. H. BEATTIE, Wiltton Grove, Ontario, IMPORTER AND BREEDER OF Shropshire sheep, collie dogs, White Holland and Mammoth Bronze turkeys, and Barred Rocks.

LITTLE'S PATENT FLUID NON-POISONOUS SHEEP DIP AND CATTLE WASH

THE ORIGINAL **Non-Poisonous Fluid Dip**

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.

For sheep. Kills ticks, maggots, cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.

Cattle, horses, pigs, etc. Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

Prevents the attack of Warble Fly. **Keeps animals free from infection.**

No danger, safe, cheap, and effective Beware of imitations.

Sold in large tins at 75 cents. Sufficient in each tin to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.

SOLD BY ALL DRUGGISTS. SEND FOR PAMPHLET.

Robert Wightman, Druggist, Owen Sound. Sole agent for the Dominion.

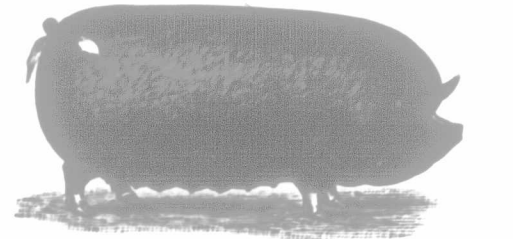
The herd of Ayrshire cattle founded 20 years ago by Mr. H. Taylor, Tower Sanguhar, Scotland was sold last month, when its head were disposed of at a good though not sensational price. The cow carrying about \$25, and the bull \$10. The cow, brought the highest price ever paid, and the highest price for a female.

BERKSHIRES

A specialty. Can supply pairs and trios not akin. Various ages. **MAC. CAMPBELL, NORTHWOOD, ONT.**

FRESH BERKSHIRE BLOOD.

Have secured the first choice of the champion gold medal herd of America (which won over 400 prizes, cups and medals), including the \$400 show sow, Elphick's Matchless (never beaten), and other sweepstakes sows in the United States. Also 15 April, May and June boars and 15 sows of the same age, and 3 fall litters, selected to meet the best Canadian demand, being long, low, and extra good through the heart. Farm within 10 minutes' walk of electric R. R. terminus on Kingston road. **DURHAM & CAVAN, East Toronto, Ont.**



Berkshires—Large, lengthy, English type. Five first-prize boars in service. Spring pigs ready for shipment. Boars fit for service. Sows ready to breed. **GEORGE GREEN, Fairview, Ont.**

OAK LODGE YORKSHIRES

ARE THE CORRECT TYPE TO BRING THE GREATEST PROFIT.



We breed our winners, and we win more prizes than all other herds combined at Toronto, London, and other large shows. Sweepstakes in bacon classes over all other breeds in dressed carcass competition, also on foot, for two years in succession. Championship carcass in bacon class at Chicago, 1900. First-prize herd at Toronto Industrial for nine years. Write for prices.

Brethour & Saunders, Burford, Ont., Can.

The American Antiquarian and Oriental Journal, published bi-monthly in Chicago, is a class by itself in natural history and oriental matters, and is designed to interest students of manners, customs and conditions of ancient peoples. The number for March and April, 1901, deals with such subjects as the North American Indians, Australian Tribes, Mound Builders, Mexican and Maya Architecture, Prehistoric Earthworks in Mississippi, the Tegal Language, and the like. It is in its 10th volume, and is well gotten up.

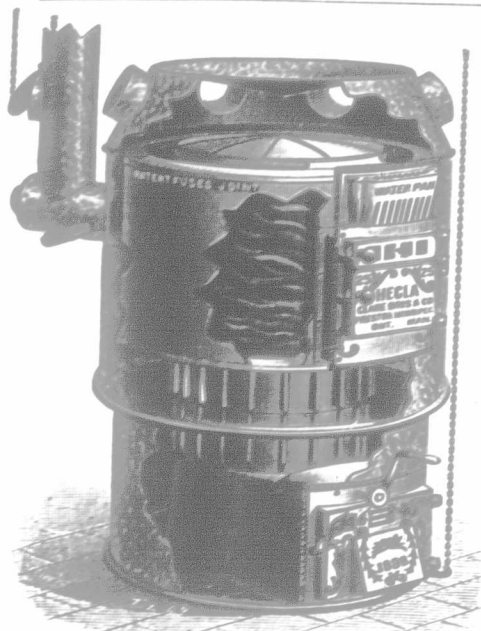
IN WRITING PLEASE MENTION FARMER'S ADVOCATE.

MARCH BOARS AND SOWS

from Thrifty Maid, the sweepstakes sow at Guelph Fat Stock Show, and from Jessie K. and Minnie F. Sired by Advance and French, my stock boars. The pigs are choice, and prices right. NORMAN E. BLAIN, Brant Co. on St. George, Ont.

Canada's Winners. EGGS FOR HATCHING.

Silver Gray and colored Dorkings, Indian Games, Houdans, Minorcas, Hamburgs, Leghorns, Polandis, Ducks and turkeys. Our birds win at Boston, New York, Toronto, London, Kingston, Ottawa, Montreal, Also Ayrshires (bulls and females). For full particulars, write WM. STEWART & SON, on Menie P. O., Ont.



The Patent Fused Joint

HECLA FURNACE

is the most valuable improvement in furnace construction in recent years. By means of this patented method we fuse the steel and iron which go to make up the dome and radiator into ONE SOLID CASTING. There is no danger of cement falling out, to let the dust, smoke and gas escape into the house. Another feature of the Hecla is that it will burn

EVERY KIND OF FUEL COAL, WOOD OR PEAT.

Send us a sketch of your house, and let us give you an estimate.

CLARE BROS. & CO., PRESTON, ONT., and WINNIPEG, MANITOBA. on

METAL SHINGLES METAL CEILING

ASK FOR FREE SAMPLES CATALOGUE AND ESTIMATES Use metal inside and outside and your building will be warm and dry, lightning, fire, wind and weatherproof, possessing a beautiful appearance at small cost.

METAL SHINGLE & SIDING CO LIMITED PRESTON ONT

BE UP TO DATE.



Be progressive and buy the best. Frost Fence and Gates can be had at no greater charge than inferior makes. Why not have the best? Coiled spring wire sets tight. Heavy steel stays hold up, and the Frost lock securely joins the two. on The Frost Wire Fence Co., Limited, Welland, Ont.

Mr. Duthie, Collynie, Aberdeen, has hired the prize bull, Caledon Chief (71163), which won at Belfast this spring. This bull, we understand, had been purchased for the Argentine, and could probably have been exported ere this had not the ports been closed, owing to foot-and-mouth disease.



"Stuck on his Fence"

If you use Page Fence you will like it, but will not be stuck like the gentleman in the picture. The Page Fence is woven in our own factory, from coiled wire made by ourselves, and twice as strong as that used in other fences. Get this year's prices, they are lower than last year. The PAGE WIRE FENCE CO. (Ltd.) WALKERVILLE, ONT.

"D. ROSS, Box 553, Winnipeg, General Agent. Fence in Stock."

BULL-STRONG! BULL-TIGHT! An Illinois farmer said that after harvest he had fully 200 bushels of loose oats on the ground that he could not secure any benefit from, because the fence around the field would not turn hogs. Figure the loss for yourself. He also said, all this would have been saved if he had used the Kitzelman Woven Wire Coiled Spring Fence, and the value would have gone a long way towards paying cost of the fence. With the Duplex Maching any farmer can make it himself at the actual cost of the wire. Catalogue free for the asking. C. G. DAVIS & CO., Box C-116, Freeman, Ont.

LOW PRICE IN WIRE Fence Building is attracting farmers' and agents' attention. THE CHEAPEST GOOD FENCE. No trouble to answer questions. Kits for free Catalogue. McCLOSKEY WIRE FENCE CO. (INC), Box A, Windsor, Ont., Detroit, Mich., Birmingham, Eng., Paris, France. Agts. wanted

BUY THE BEST "ACME" POULTRY NETTING. Buy a poultry netting that is big enough and strong enough to be stretched and stay stretched without rails at top and bottom. Our patent "ACME" POULTRY NETTING... It has large strong wires at top and bottom and in the middle. That makes it easy to stretch and stay stretched. Look at the graduated mesh—from 1 1/2 in. at bottom to 3 in. at top. 24 to 72 in. high. Will please anybody. We also make Lawn and Farm Fencing, Gates, Staples, etc. Write for catalogue. THE PAGE WIRE FENCE CO., Limited, Walkerville, Ont.

Coiled Spring and other fence wire for sale at lowest prices. Also GEM Fence Machines. The GEM holds the record, 120 rods of 10-wire fence woven in 10 hours. Write McGregor, Banwell & CO., on WINDSOR, - ONT.

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

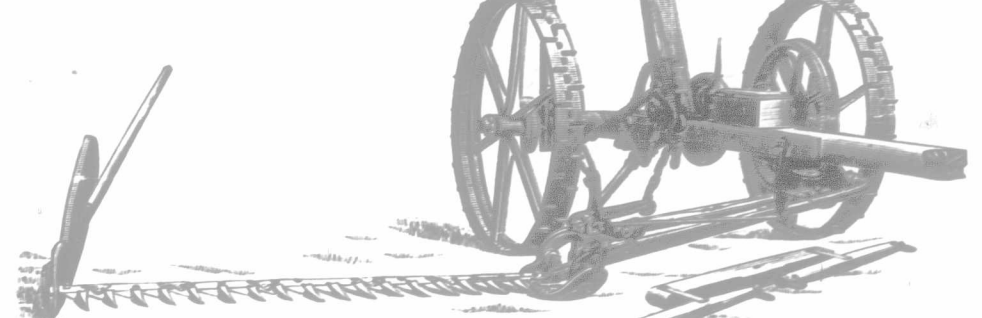
THE COMMON SENSE BOLSTER SPRING. WINDSOR BOLSTER SPRING CO

Table listing prices for transforming common wagons into first-class spring vehicles. To carry 1,000 pounds, per set: 1,500 (\$5.00), 2,000 (6.00), 3,000 (7.00), 4,000 (8.00), 5,000 (9.00), 6,000 (10.00), 7,000 (11.00), 8,000 (12.00)

The only truly graduated bolster spring in the market. They always afford a spring for light and heavy use. Every set of springs guaranteed to give entire satisfaction. If your dealer does not handle them, write us direct. on Windsor Bolster Spring Co., Windsor, Ont.

Does Quality Count with You? IF SO, WE CAN INTEREST YOU.

We want every reader of "The Advocate" to get one of our New Catalogues for 1901. Send us your address on a post card.



THE FROST & WOOD New Mower No. 8 4, 5 AND 6 FOOT CUT. THOUSANDS IN USE AND GIVING SATISFACTION.

Our samples for 1901 are now ready. SEE THEM and get our prices before buying. IT WILL PAY YOU. Local Agents Everywhere.

BRANCH OFFICES—Toronto, London, on Winnipeg, Montreal, Quebec, St. John, N.B., Truro, N. S. HEAD OFFICE AND WORKS: Smith's Falls, Ont. THE Frost & Wood Company LIMITED

Built on the interchangeable plan.

SPRAMOTOR All machines built so must be exactly alike, each part standardized, and a plunger or valve or any other part from one must fit all. This saves money for the users of the SPRAMOTOR. Any part can be supplied at once from London, and it will fit in the machine without the use of a file. Every part works smoothly together and without friction. More solid brass by weight in the Spramotor than any 3 inferior spray pumps made. Awarded first place at the Government Spraying contest. It will spray your orchards, kill the wild mustard, paint and whitewash your buildings. An 84 page treatise free. SPRAMOTOR CO. London, Can.

INCREASED CAPACITIES 1901

Improved Alpha-De Laval BABY SEPARATORS.

Table showing capacities and prices for Baby Separators. Humming Bird, instead of 225, now skims 250. \$ 65.00. Baby No. 1, 325, 450 100.00. Baby No. 2, 450, 600 125.00. Baby No. 3, 850, 1000 200.00. Dairy Turbine, 850, 1000 225.00.

30% to 35% more capacity. No increase in price.

The same standard of "ALPHA" closest skimming is preserved. Apply to local agents or to Canadian Dairy Supply Co., 327 COMMISSIONERS ST., MONTREAL.

At the auction sale, on April 23rd, of the Shorthorn herd of Mr. William Taylor, Kirkly Stephen, England, 10 bulls sold for an average of £3 13s., and 12 females at an average of £35 5s. The highest price, 150 guineas, was realized for Scotch Flower 2nd, a roan 2-year-old show heifer which has won many prizes at local shows. She was sired by the white bull, Pride of Freedom, son of Pride of Morning, and grandson of Star of Morning, who has proven an extra good breeder. Mr. P. L. Mills, Riddington Hall, was the purchaser. Her dam, Scotch Flower, 8 years old, by the Duthie bull, Jacobite, brought 60 guineas.

BELL

PIANOS AND ORGANS

BUILT TO LAST A LIFETIME BY THE
LARGEST MAKERS OF PIANOS & ORGANS IN CANADA.

The Bell Organ & Piano Co., Ltd., Guelph, Ont.

(CATALOGUE NO. 40 FREE ON REQUEST.)

J. J. H. McLEAN & CO.,

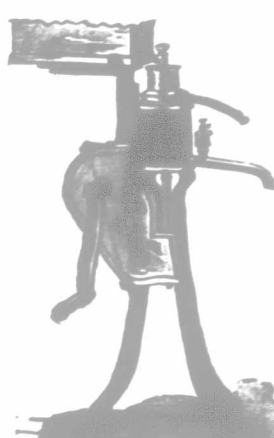
530 MAIN STREET, WINNIPEG, WHOLESALE AND RETAIL AGENTS FOR MANITOBA

U S U S U S U

Both Theory and Practice

S U S U S U S U

Prove the Superiority of the U. S. Cream Separator



In Theory, its one piece frame, enclosed gears running in oil, few parts, three-separators-in-one bowl, and superior construction in general make it the

Cleanest skimming, most substantial, safest, easiest operated, and most durable Separator made

In Practice, it is daily proving the correctness of our theory, as testified to by pleased users everywhere. If interested, write for catalogues containing hundreds of letters to this effect.

Made in all sizes for either the Dairy or the Creamery.

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REMEMBER, there is No Duty on Improved U. S. Separators shipped into Canada.

S U S U S U S U

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Wm. Scott, Esq., Winnipeg, Man. Middlebury, Man., April 17th, 1901.

Dear Sir,—The Improved United States Cream Separator, No. 7, which I purchased from you a short time ago, is giving perfect satisfaction. As a cream separator I consider it as near perfection as anything could be. It skims exceedingly close; in fact, there is practically no butter-fat left in the skim milk. One great advantage it has over several other makes of machines is the few parts inside the bowl, and the ease with which it can be cleaned. I find that it will skim fully as fast as the makers claim for it (viz., 240 lbs. per hour), as I have timed it several times. It is a machine that is made to last, being very strong and simply made; all running parts being enclosed, which not only protects it from dust and dirt, but renders it impossible for any accident to happen, such as getting wound on a shaft or caught in the gears. It is also very light running, which is a great consideration in a cream separator.

Yours truly,
H. O. ALEXANDER, breeder of Shorthorn Cattle.

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SULPHATE COPPER, IN 100-LB. LOTS, 7 c.; ANY QUANTITY, 8c. LB.

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REDUCES FUEL BILLS MORE THAN ONE HALF.

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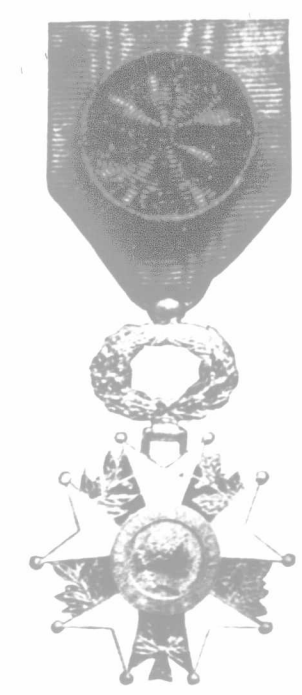
Every farmer should have a set for drawing hay, grain, etc. Are lighter, stronger, and heavier than wooden wheels. Write for price list.

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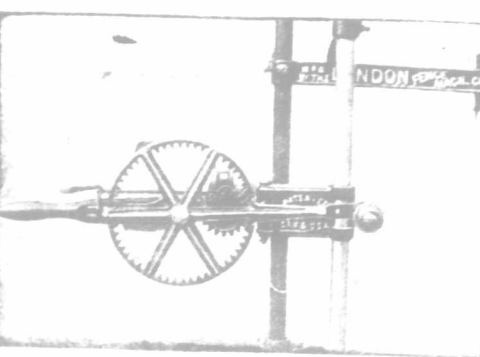


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1	10	1 to 5 "
2	15	2 to 7 "
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4	25	4 to 12 "
5	30	5 to 14 "
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