

EDITORIAL.

Mr. Dearness' Paper on Agricultural Education.

We complete in this number of the *ADVOCATE* a comprehensive and able paper on Agricultural Education, by Mr. John Dearness, Inspector of Public Schools. From a long and intimate acquaintance with the Ontario school system, and a careful study of others, notably when representing Ontario educational interests at the World's Fair, Mr. Dearness is peculiarly well-qualified to handle this subject, and is entitled to rank high as an authority. His paper first gave a review of the rather unsatisfactory record of Agricultural Education in Ontario, then an outline of the famous French system and of what Manitoba is now attempting. He next deals with the philosophy of educational methods, and we must admit, however much we are disposed to plume ourselves on the modern system of education as it prevails in Canada, particularly in Ontario, that this paper is an incisive disclosure of weakness at the very foundation. People complain bitterly of the constantly increasing drift of rural population to cities and towns; but is not our whole school system one of the forces gravitating the youth in that direction? We do well to recognize the basal defect which Mr. Dearness points out, otherwise no rational reform can be looked for. When we consider the fact that in 1893 the grant for the purpose of agricultural education in France had reached about \$700,000, it should open our eyes also to the possibilities of national effort in that direction. We commend to our readers and the educational authorities Mr. Dearness' paper, which we trust will aid in awakening thought and stimulating action upon this most important subject.

Agricultural Education.

[An address delivered before the Ontario Central Farmers' Institute by John Dearness, I. P. S.]
(Continued from page 214.)

Fully accepting the above conclusion, I am not sorry that our attempts to teach agriculture by rote from books has not satisfied either the people or the teachers. Agriculture is a very complex applied science; it is founded on the circle of sciences, the chief of which are meteorology, geology, mineralogy, physics, chemistry, botany, and zoology, including entomology. Every farmer, whether aware of it or not, is an applier to a greater or less extent of every one of these sciences, and something of a machinist, to boot (indeed some add astronomy to the list, for do they not sow their peas and kill their hogs at a certain phase of the moon, and cut Canada thistles at a favorable conjunction of the planets?). The farmer, all his life, must be a practical student of these sciences. How important, then, that the schools should start him with scientific methods of investigation! Nature should be the text book; the teacher should be merely the director and maintainer of the attention. It is true we have object lessons in our schools, but if these, as too often they do, end with cataloguing qualities, the result is chaff and not wheat. The observation faculties are not trained by mere observing, but by reasoning about what is observed. The eye sees the object held before it, but trained scientific observation sees more or less of the history of that object, stretching away back into the past, or attempts to measure its future possibilities. I should rather have my child reach ten scientific conclusions by his own efforts (observations), wisely directed, than to acquire a thousand by remembering *ipse dixit* of teacher or text book. For example: I propounded the question, "Whether is the dew heavier on calm or windy nights?" After three observations, the child said, "On windy nights," giving her reason. Even that result I thought much better than if she had looked in a book and read the opposite statement. I told her to continue watching, and writing each morning what she noticed. The farmer needs to use his eyes and reach correct judgments from his observations; so does everybody else. Hence, Nature study should form an important part of every school's curriculum, from the first to the highest grades. Progress in this kind of education cannot be tested by the ordinary written examinations, upon a set of formal questions prepared for all the schools of a country or a province.

By Nature study I mean that development of mental power and habit which comes with knowledge gained by observation and experiment, and by comparison and relation of causes and effects of phenomena that appeal to the attentive senses, no matter in what field of science, so-called, these phenomena lie.

Gentlemen, do you agree with me that education, by the scientific method, in the sciences that subserve agriculture and domestic economy, and in those parts that serve these arts best and most, is what we need in our schools? Then, inaugurate a propaganda to educate the public to require *method* as well as *matter*. The system of written examination in vogue might test how much of a text book in agriculture the children had memorized, but it cannot test how they are being taught to observe scientifically. That was a capital paper by E. A. Powell, in last June 15th-August 15th of the *FARMER'S ADVOCATE*. I hope you all read it. You may remember his argument that readjustment of Public school courses of study will enable us to make farming much more profitable; that the "study of horticulture and biology will aid materially in this direction, but there is quite as much advantage in chemistry and in farm economics. Farming will

pay when it is done understandingly, intelligently, lovingly, with a knowledge of the forces we deal with and the things we handle. At present, the bugs understand us better than we do them. They have little to learn, but that they have learned well." He proceeds to show that "one-half the production of American lands is lost through ill-directed education. Our apple crop is more than half lost, and this is pretty surely true of all other fruits, except, perhaps, small fruit, which cannot be grown at all except with special attention. The plum trees, over large areas of the Northern States, have been cut down, or ought to be, to get rid of the black knot. The cherry trees were also assailed fifty years ago, and gradually eliminated by the same disease. The curculio spoils yearly tens of thousand of bushels of both these fruits. Remedy: more knowledge of entomology and of tree life itself. Give that, and the snap and backbone will be found. The farmer is rarely a lazy man. His trouble is, he does not know his enemies, or how to fight them. He does not know his friends from his foes in the insect world, and is as likely to destroy the former as the latter." He inquires, how can this desirable result be obtained? How can we secure for our rural schools teachers competent to teach geology, chemistry, biology, and physics? He answers his questions thus: "When the demand comes we shall surely have the supply. But let us not make the mistake in supposing these to be more abstruse or difficult studies than geography, arithmetic, and grammar. Rightly taught, these latter are far the most difficult and advanced. They belong only with older pupils. The former sciences are simpler and more fundamental. They deal with everyday questions and things near at hand. Science, as entomology for instance, deals with butterflies and bugs—just what children naturally take to. Science, as botany, deals with flowers, fruits, roots, trees—just what all children like. Science, as geology, deals with the dirt and stones and brook-bed—just what children love. Science, as chemistry, pulls things to pieces and reconstructs; as physics, it plays with sunbeams. This is not at all abstruse. We want just as little as possible to do with books while educating a child."

Develop a strong sentiment in favor of Nature study in the schools and that sentiment will demand competent teachers. The present ruling question, "Who will teach our school the cheapest?" will give way to, "Who will give us the best value for what we can pay?"

Mr. Powell, quoted before, says: "So utterly impossible has it been for myself to secure my children what I call a rational education that I have done what I regret many more do not or cannot do—built a laboratory and employed private tutors. Here they enjoy with a zest drawing, geology, biology, chemistry, mathematics, and music, with, as far as possible, field work. These studies are followed by a general knowledge of life on the globe, as well as the history and science of human language and thought. At this point, geography becomes a rational part of education. The result has been more than satisfactory. They love the land, and the things of the land. I am confident they will never consider land culture inferior to traffic. Their minds are here, because their acquaintances are here. Their souls are with the birds, the plants, the animals, the bugs."

The sentiment I speak of will give us not only trained teachers but the necessary means and appliances for doing the work properly. There must be apparatus and materials; fortunately they are inexpensive. I have spoken of the outfit at \$4, to be furnished each of the Manitoba schools, and they are also to receive a set of colored charts of plants and animals. A compound microscope, as well as a simple one, should be added. Then the school garden, with gardening implements, is almost indispensable; a little plot convenient to the play-ground, but better not a part of it, where germination, growth, fertilization, and even hand-pollination, grafting and budding may be observed and practiced. Could not the agricultural societies give prizes to encourage school-gardening? I see no difficulty in the way, if the competition were limited to townships or inspectorates.

I have said so much against text books that I ought to make it clearly understood that I am not opposed to seeking assistance from books. On the contrary, every school should have a few science reference books. I oppose those lesson books to be placed in the children's hands, liable, almost certain, to be learned by rote. I favor books that are investigation guides. Of the latter, as being the best, I know I have laid on the table Howe's *Systematic Science Teaching*, Jackman's *Nature-Study*, Harlan Ballard's *World of Matter*, Spalding's *Botany*, Boyer's *Biology*, and Colton's *Zoology*. These, and doubtless others I do not know of, should be within every teacher's reach. It is, however, easy to see that a graded series of, say, two or three small books—scientific investigation guides—prepared expressly in the interest of agriculture, would be different from any of the above, although similar in plan to some of those mentioned.

The material for instruction is overwhelmingly abundant; most children start to school with a taste and aptitude for such learning; skillful method on the part of the teacher is the desideratum. "As I write these suggestions (to the teacher) I fully realize the struggle it will cost you to keep silent about all the interesting things there are to be told, but that word 'told' lets out the whole mischief." (Howe's *Systematic Science Teaching*, page 167.)

The following is an outline of a course of study that might be taken up in the Public schools:

First Class.—Observations upon, and conversations about, common objects, such as utensils, articles of food and clothing, etc.; classification, as of houses, fences, books, etc.; sorting metallic articles, seeds, leaves, etc.; observations on weather, skies, seasons, etc.; talks about plants, animals, etc., that can be brought to the school, or that the pupils have experience with.

Second Class.—Observations, of which a daily record is made of direction of wind, cloudiness, rain, snow, dew, hoar frost, etc., and practice in forming judgments upon the observations, as, e. g., answering the questions, "What directions of wind usually bring rain?"; sorting objects, as fibers, minerals, etc.; classifying objects, as tools, plants, animals, on the basis of their uses; observations on the seasons, changes of the moon, position of the sun; elementary systematic instruction, with objects at hand, upon seed, leaf, flower, fruit, etc.

Third Class.—Observations on weather, temperature, changes of the seasons, recorded daily and judgments deduced therefrom; migrations of birds, habits of animals; classification of woods, soils, fruits; comparison of minerals as to qualities, such as hardness, lustre, etc.; plants continued, description, development, and function of organs, relation to soil, moisture, shade, introducing tillage and drainage; elementary systematic study of the organs of animals; simple experiments in physics and chemistry.

Fourth Class.—Meteorological record continued, with notes as opportunity offers on such classes of facts as the effects of frost on soils, buds, etc.; migration of birds, opening of familiar wild flowers, first appearance of familiar insects, such as potato bug, tent caterpillar, grasshoppers, etc.; plants continued, comparison of organs, based on examples, as various forms of roots, stems, leaves, flowers, fruits, seeds, and life history of plants, such as potatoes, wheat, strawberry, apple; talks and practice, if possible, on thinning, pruning, grafting, comparison of animal organs, function, and hygiene; experimental physics and chemistry continued, aiming at teaching the physical properties of matter and simpler chemical facts of air, water, lime, salt, sulphur, etc., soils and manures.

Fifth Class.—Meteorology, farm calendar, recording time of operations, times and effects of unusual cold, heat, drought, winds; observations upon the opening of flowers, setting of fruits and visits of insects; plants, use of key in identifying plants, life histories, observations on injuries from insect and fungal parasites; growth, form, decay of trees; weeds, their means of spreading; entomology, studies (from special view) of metamorphoses of insects, life histories of insects; physics and chemistry continued, experimentally, with a view to applications to agriculture; visits, by arrangement, to good farms, or to dairies in the neighborhood, to study livestock, farm buildings, laying out fields, or farm or dairy processes.

If France's experience has a lesson for us, results of great importance should be expected of the High schools. If these institutions were to devote as much money and energy to teaching scientific agriculture as they do to the preparation of entrants to the professional and commercial pursuits, they would doubly and trebly repay to the agricultural interests the large grants they now receive from the counties, and they would contribute towards a signal increase of the profit and pleasure of life on the farm.

Inspector Smith, of Wentworth, proposed a scheme to set apart one school in each township, to be equipped at the expense of the township, with an extra teacher, who would give a graduation course specially adapted to farmers' sons. If these classes were established, they should be taught by graduates of the Agricultural College, holding a teacher's certificate.

Elementary science properly begun in the Public school, continued and strongly specialized towards agriculture in the High schools, would increase the attendance of better prepared candidates for our Agricultural College. The present one is admitted on all hands to be doing excellent work. The number of these would have to be increased to meet the demand. This duty would devolve on the Government, also the duty of providing a practical course in the Model and Normal schools, and of sending experts on matter and method to the Teachers' Institutes.

In the paper by Mr. Bryant, first quoted, he argued very cogently that a course in scientific agriculture affords disciplinary training for the mind, it offers scope for aesthetic and ethical training, and it is, above all, utilitarian. If to such a course were added reading, literature and arithmetic, with suitable provision for expression by language, oral and written, drawing, and making in clay and wood—and in the fourth and fifth classes in the Public schools, history and world-geography, with good morals acquired by constant practice and incidental precept, with careful attention to the health and growth of the children throughout, then I think we should have an ideal system of education.

I am addressing the most representative body of farmers in the country. Does it not behoove the Central Farmers' Institute, the Farmers' Parliament, to do more than listen to the reading of the papers on this most important subject? Can you not issue educational bulletins broadcast throughout the land? Would not a committee appointed to consider and draft a scheme, and confer with the Ministers of Education and Agriculture, stimulate efforts towards practical results? I tell you what you know, that the people do not take kindly to innovations that they regard as forced on them from the central authority. Lead the people to demand the improvement, then they will welcome it. It was the clamor of the Farmers' Institutes that moved the Government of our sturdy neighbor on the north-west to provide a course of agricultural instruction in the Public schools. The people now, I am informed, are receiving it there with enthusiasm. Let us copy the example of Manitoba in this matter; and, although she has the start of us, let us enter into a race with her for best results.

I conclude with a sentence from Farmer Powell's article, that the all-important point is to have in our schools a curriculum of study that will make our children acquainted with the land, and what is on the land; an education that unfolds the nature of soils and the wonders of life in and on the soils; and while bewitching them with the everlasting unfoldings of such studies, makes it possible for them to master their foes and to receive the benefits of insect, bird and plant friend. This done, no other occupation can compare with farming, for its charms and advantages.

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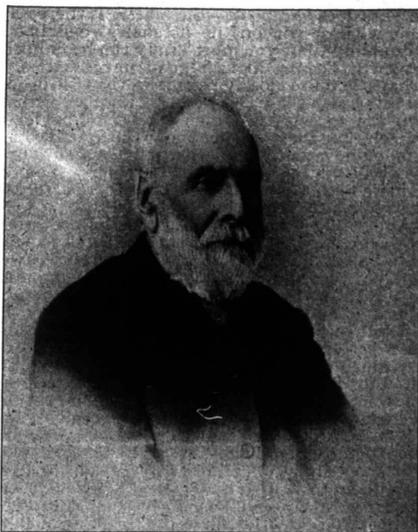
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Cost of Production—A Suggestive Article.

A special and original feature in this issue is the article in which our esteemed contributor, "F. J. S.," figures out in detail the cost of producing a pound of butter in different seasons under certain conditions. This is a vital question with the dairy farmer, and should stimulate others to give our readers the benefit of their experience, whether in line with that of "F. J. S." or not. The article suggests at once how essential to profit it is to provide a cheap and effective ration for the use of a cow with the inherited and developed faculty of producing large quantities of rich milk.

Death of "The Grand Old Man of Sittyton."

It is with a sense of profound sadness that we record the death, on the 29th ultimo, of Mr. Amos Cruickshank, of Sittyton, Aberdeenshire, Scotland, and we feel sure we but voice a grief that will be felt everywhere throughout the Shorthorn world, and nowhere more so than in Canada and the United States, where the impress of "Cruickshank" blood has been so universal. A series of articles, still fresh in the minds of breeders, appeared last fall in the FARMER'S ADVOCATE, entitled "The Evolution of the Scotch Shorthorn," in which were recounted the system of breeding and management pursued in the creation—so to speak—of that grand type of cattle.



It will not be necessary now to detail the growth of the Cruickshank herd from about '37, when Amos, who had been joined in the farming and breeding enterprise by his brother Anthony made his first trip into Durham, where he secured a solitary heifer. From so modest a beginning grew a herd that ultimately numbered some 300 head, and the benefactions of which spread to all cattle-rearing lands. In 1889 came the final sale to the Messrs. Nelson, whose purpose was to export the herd en bloc to the Argentine Republic; a plan not carried out, however, through the intervention of the enterprise of Messrs. Duthie and Willis.

The late Mr. Cruickshank was born near Inverury in 1808, within a few miles of where he spent his life, over fifty years of which was devoted to Shorthorn breeding, and the personal supervision of a farm that finally covered about 1,000 acres. Without special educational advantages, he was essentially self-made. A man of broad-minded sympathies, he led a quiet life, though full of business care, with its trials and successes; yet, withal, a life of ideal simplicity. He cherished no feelings of ill-will nor petty jealousies. No one ever heard Amos Cruickshank say an unkind word about a fellow mortal, and no one ever heard him boast. He needed not to herald his own achievements—they spoke for themselves. Truly he was a great man, within whose honest breast beat a large and tender Scottish heart, that even a rugged exterior could not hide from view.

We need not repeat the closing words of an editorial tribute to his career, published in these columns in November 15th last:—"He was a man whose steadfastness of purpose, whose fidelity to a high ideal, whose worth and achievements, will enshrine his memory with imperishable regard."

The Boot Is On the Other Foot Now.

The English Live Stock Journal writes, in a melancholy and reproachful strain, of the German Government for shutting out English live stock because of the "alleged prevalence of foot and mouth disease" in the latter country, protesting that they only had one isolated case of this pest many months ago, when it was immediately suppressed, and that the country has been absolutely free from it for a long time. The Journal goes on to insinuate that the action of the German Government was really due to the abnormal development of shipments of common, not to say inferior, stock purchased at low prices in British fairs and markets, a trade which has since terminated. Our contemporary thinks that the Germans really ought to abandon their restrictions, "because there is not the slightest risk of disease," etc. These Germans must have taken as a precedent the British embargo on Canadian cattle, and if condolence is of any use to our contemporary and its readers, we hereby extend the same.

Our Frontispiece--The Product of Skill in Breeding and Feeding.

We give in this issue of the FARMER'S ADVOCATE, two live-stock illustrations,—one, the frontispiece, representing a Shorthorn ox; the other, within, an unimproved native from the Baltic Sea Provinces in Western Russia, which, in contrast, more vividly impress upon the mind than any words could portray the achievements of British skill in cattle breeding and feeding. The differences stand out quite as strikingly as in the "before and after taking" portraits of the patent medicine vendor, especially when we consider that these are faithful representations of the originals. The frequency with which we are reminded that "the breed goes in at the mouth" indicates that not a few men can probably yet be found who cherish the notion that it is all a matter of feeding the given individual. But let each of these processes be given its due place;—no amount of feeding, however skilful, would transform the Baltic native which we portray into the Smithfield winner; because the foundation—the framework—was not there to build upon, nor the tendency implanted, by breeding, to convert the food into flesh.

This Shorthorn ox was the property of Edward Wortley, Esq., of Riddington, Rutland, Eng., and was by a pure-bred bull sired by "Father Matthew," bred by Lord Spenser. The dam was well-descended, but not pedigreed. At the Oakham Show, in December, 1856, this steer took the 1st prize of seven sovereigns, as the best under three years old; and the following year, at the same show, the 1st prize of 15 sovereigns, for best ox under five years old, of any weight or breed,—open to all England. At the Leicester Show he carried off a similar trophy; and the following week (December, 1857) he took the 1st prize of 25 sovereigns, as the best Shorthorn ox, with silver medal for the breeder, and the gold medal as the best ox in the yard, at the Smithfield Club Cattle Show. He was of great length and breadth, with beautiful symmetry and compactness of form. His chine and ribs were wonderfully extended; his immense weight of flesh most evenly laid on, and of first-class quality, in the opinion of a writer in the Farmer's Magazine, published at that time, and from which our engraving is reproduced. His dead weight was 206 stone, with 22 stone of loose fat. When slaughtered he was three years, 11 months and six days old.

Mr. Wortley, the breeder and feeder of this famous beast, had never before entered one at the Smithfield Club Show; but he had been a Shorthorn breeder for about 15 years on a small scale. In ten years he was the winner of some forty premiums.

The portrait of the black, hornless cow, which appears elsewhere, is from a photograph obtained by the U. S. Consul at Riga, and is a representative of the unimproved stock of the Baltic Provinces, where he truly says (judging from this specimen) that stock raising is in a very primitive state, pure-breds being rarely found. The mature stock of that country average in weight from 800 to 1,000 lbs., and the system of general management and feeding appears to be just as primitive as the breeding. On this side the Atlantic, the subject of our extra illustration would be known by the expressive, if not euphonious, designation—Scrub!

Our Stand Commended.

We have received hearty commendations regarding the position taken in our last issue in favor of maintaining our independent control. One of the foremost of our breeders expressed himself indignantly at the anonymous suggestion (scattered broadcast, after the manner of a circus poster, among at least one section of our breeders) to go to the States for ability to run our records. He regarded it as little short of a slander to talk of all Canadian records being "penniless," when the Shorthorn Breeders' Association, for example, has now \$4,000 in the bank and no debts to pay,—something at least one American record Association he had in mind could not say, for it had to borrow money to keep going. "I cannot understand," he remarked, "why this thing should have been mooted. I approve of what you have written, but you might have made it stronger." Another prominent breeder, who does a large trade with the States, writes emphatically, concluding as follows:—"I do not like this amalgamation scheme, and am wondering who in Canada is mooting it. I would prefer our own records to going into that venture."

STOCK.

Establishing a Herd.

[Read before the Live Stock Breeders' Convention, by Walter Lynch, Westbourne, Man.]

The subject that has been assigned me, "Establishing a Herd," is a very large one—so large indeed that it embraces the whole science and practice of breeding. The great breeders of the past, whether of horses, cattle, sheep, or pigs, spent their lives in establishing herds, and the scientific breeder of to-day is doing the same thing, and I think I am safe in saying no one has ever yet quite satisfied himself that he had reached perfection.

I have neither time nor ability to give you a scientific paper on this subject, and in the brief time at my disposal to-day can only glance in a desultory way at some of the more important features of the subject that must be taken into consideration by any one starting to establish a herd.

The herd I am about to establish will not be a pure-bred one: it will be one in which the operator must take such materials as are within his reach, and breed them up to something better, and of a more uniform type. In that operation the first fact he must recognize is that all our domestic animals are, in their present state, largely artificial productions, and in that state have acquired artificial habits, and artificial wants that must be provided for. He must also understand that in the artificial improvement of these animals man has added nothing to them, has infused no new elements into their construction, and that whatever their original type may have been, it contained within itself the elements of improvement, and that whatever improvements have been made, have been made along natural lines, by natural forces, out of the material supplied in the original pair of the species. No one doubts, or can doubt, that all improvements in natural products have been made by selection, and by the operation of that law of nature that causes like to produce like.

These are lines on which all improvements have been made, and these are also the lines on which any retrogression will be made, and the beginner must thoroughly master these facts before he can hope for any success in his undertaking. He will hardly need to be told that this principle of selection has been in operation in animal life ever since there have been animals. In a state of nature the agents to enforce it were strength and fighting ability, the delicate and timid gave way to the robust and aggressive, and the species was perpetuated by the best and strongest specimens. This is the survival of the fittest. But in their domestic state this selection must be made by the breeder, and it is the only factor in the whole process of breeding that is absolutely under his control, and on his skill and judgment in selecting his animals will depend his success as a breeder. And selection implies something more than mere ability to distinguish between a good and a bad animal; they must be selected with reference to the animals with which they are to be mated, as well as for their own good qualities, for an animal may be a good one in itself, and yet be a very bad one to mate with some other very good one; and here is where a skilful breeder's selection ought to be an improvement on nature's. A hundred years ago a great breeder said: "What has been created by art must be continued by the same means," and time has proved the truth of his proposition.

The law of like producing like, while it may not be more important than judicious selection (indeed neither of them could accomplish anything without the other), is more difficult to understand, and is continually producing results that are often attributed to other causes. It, too, has been in operation ever since the first animals were created; and if it has been a potent factor in their improvement, will be an equally potent one in their degenerating. For if the original pair of the species contained within themselves the elements of improvement, and our improved animals have been evolved from those elements, it follows they must contain within themselves the elements of retrogression on those same lines; and if the practice that has produced the improved animal of to-day were reversed, it would return them to the type whence they originated. And it is this feature of the principle that causes a tendency in all improved natural products to revert to their original type. We often hear it said that these two tendencies are contradictory and antagonistic, but this is a very superficial view of the subject, and by looking a little deeper we will see they are the same principle, and operating in exactly the same way, as I shall endeavor to show you by a specimen of the most unscientific breeding a man could possibly follow.

Take for example a mare of no known breeding, with a perfect hind end, but with a fore end so defective as to bring her below an average mare, and mate her with a horse of no known breeding, with a perfect fore end, but with a hind end so defective as to bring him below an average, and you might possibly make such a hit as to have a perfect foal. Suppose it be a mare, and mate her with a horse exactly like herself, and this principle of like producing like, might give you a perfect foal, or it might give you one a good deal below an average; for, although the parents were perfect, the component parts of their direct progenitors totalled something less than an average animal. This is also the reason why a second or third cross is often less satisfactory than the first, if the sires have not been judiciously selected.

"Stonehenge," writing on this point, says: "It is known by experience that the good or bad points of the progenitors of the sire or dam are almost as likely to appear again in the offspring as those of the immediate parents, in whom they are dormant." Hence, the rule in breeding is, that like produces like, or the likeness of some ancestor.

But if the owner of this perfect mare be wise, he will not throw her away because she threw a bad foal to a horse bred like herself (an accident); but he will look around for a horse possessing her good qualities, and who came by them in a legitimate way—that is, through a line of ancestors possessing those same good qualities, and by breeding her and her progeny to horses of that kind, their qualities will become fixed characteristics of her race. And here is where the value of pedigree comes in. What is usually spoken of as pedigree (a certificate of breeding) is of no use by itself; it bears the same relation to a book—the matter is there all the same, with or without it,—it shows you what the contents are, but you must study the book itself to know whether the logic is good or otherwise. Or perhaps it more closely resembles the title deeds to your farms. They may show regular transfers from the crown (through a number of owners) to yourself, but they do not show the quality of the farm, or how many undischarged mortgages or tax sale deeds are registered ahead of yours. You must examine both the farm and the records to know what your title is worth.

And while I am on this subject of pedigrees, I may as well go a little further with it, though I know I shall bump up against the prejudices of a good many good men. It is a fact beyond question that Britain leads the world in their domestic animals; and if I ask the question why it is so, I will be told it is owing to their climate being so much better suited to animal life. Now, I doubt very much whether any country has a climate more suited to all kinds of animal life than all the rest of the world. Other countries—our own continent, for instance—have as varied and vigorous a fauna as Britain. Yet, if we want a race-horse, or a draft-horse, or a carriage-horse, or a saddle-horse, or cattle, or sheep, or pigs, of almost any breed, we like to trace them to British herds; and I believe there is a better way of accounting for it than climate, and it is one that exactly agrees with the principles I have already indicated. Britain is a country of wealthy men, and men of wealth and a taste for breeding have for generations devoted their wealth and abilities to the improvement of their stock. Money has not been spared in procuring the best specimens of their kind, and these have been bred with skill and judgment. It is also a small country, and consequently the breeders are nearer each other, and have opportunities of seeing each others' stock and of knowing all about them and their ancestors for generations. Hence, when a man wants a change of animals to head his herd—for it is on the sire he must depend for improving them—he has less difficulty in finding what he wants. He can visit a dozen breeding establishments in a few hours, and perhaps in each of them will find the type of animal he wants, and he can also find out all about their ancestors and their own performance, and if he finds a strain in their breeding he does not like, he can pass on until he is suited; or, failing that, choose the least objectionable one. He is, in fact, reasoning more intelligently, because he is nearer his facts. This is, I believe, the logical explanation of the superiority of their stock, even after making a very large allowance for climate.

But I suppose I have given you as much of this doctrine as you care to hear. I have given you firstly, secondly, thirdly, and lastly. And now, in conclusion, which is, as usual, the beginning of the sermon. If I were a young man with limited means, about to establish a herd, I would first of all decide what kind of an animal I wanted to breed. Then I would secure a sire of the type I wanted, and I would see that he was no chance production, but that he inherited his type legitimately. I would choose the sire first, because I would want to have money enough to get a good one, and also because it is easier to get a few females to mate with a male of any particular type than it is to get a male suitable to mate with a number of females in which there is sure to be some difference of type. This may seem a little contradictory, but it is not, as any one will find, by experience, who tries it.

In choosing an animal of any kind, and more particularly one for a sire, I would like to see him in fairly good condition—not fat, but with enough flesh on him to show where he was inclined to put it. There was a time when I thought I wanted to see an animal skin poor to judge him, but after I had got left a few times, I began to find out I did not know nearly as much as I thought I did. And now, when I meet a man who wants to see an animal dead poor to judge what it will be like in good condition, I think he is just as big a fool as I was when I wanted the same thing. The man does not live, nor ever did live, nor ever will live, who can tell exactly what difference flesh is going to make on a skeleton he knows nothing about. If I thought that pure-bred animals were necessarily delicate, as some do, and gave worse results than those having only 90 per cent. of the same blood, the first question I would ask any man who tried to sell me a ram or a boar, or the service of his stallion, would be, Is he pure-bred? and if he said he was, I would tell him to pass by on the other side of the road. I would not let him look over my fence, for health and vigorous constitution would be the first considera-

tions in choosing my stock. But if I did not believe it, as I certainly do not, the purer his blood the better he would suit me. Then I would buy the best females my means would admit of doing, as near the desired type as possible, always preferring a lesser number of good ones to a larger number of inferior ones. Then I would breed and continue to breed them and their progeny to males of the same type, though they might in some cases be both defective in the same minor points. I would try to fix what good points I had in my herd before I risked too much to overcome the weak ones. I would not choose a sire because he looked nice and sleek when loaded up with flesh, and was good in some points where my females were weak, if he was weak in more important points where my females were strong. I would not risk losing the substance by grasping after the shadow. I would not make violent crosses; I would not breed one kind of animal to-day and another to-morrow. I would use my best judgment and the best advice I could get in starting, and then I would keep straight ahead until I "made a spoon or spoiled a horn." And I would not expect too much. I would not expect to produce a cow that would make four pounds of butter and five pounds of beef a day at the same time without pretty good feed and care. In short, I would not breed a bobtail cow to a muley steer, expecting to get both tail and horns. I would expect at least two or three times a week to meet men who had learned the whole science of breeding, some morning before breakfast, who would show me I was all wrong and that I ought to be using the muley steer; but I would just let them do their talking, and would do my own thinking. And when some enthusiast came along who wanted to breed some of the ribs out of my cows, I would consider very seriously whether it would not be better to have a few more bred into them. I would expect to be told "the breed goes in at the mouth," and I would say, "All right, so does the butter, and cheese, and wool, and bacon, and lard, and mutton, and the very vim and stamina of life." I don't care how much breed or feed goes in at the mouth. What I want to know is, What results do they give? If a profit, then the more that goes in in that way the better. The animal that gives the best returns for what goes in at its mouth is the breed and type of animal I want. The man who wants to get a good deal of something for a little of nothing had better let breeding alone and go in for patent medicine.

Some years ago I used to meet a gentleman who was a bit of an enthusiast in breeding, who told me of a wonderful young bull in Southern Manitoba, and every time I met him he was louder in his praises of this bull. He had seen him a young calf, and he was a good one then, and had improved every day since, until he was really a marvellous bull, and he thought I was losing an opportunity in not getting him to use in my herd. About this time I met another gentleman from the place where this bull was bred and owned, and I asked him about him. He said he had never seen him, but had heard him spoken of as an exceptionally fine young bull. "But," said he, "I would not take him as a gift to use on my herd, because I know the stock he comes from, and if he is anything like the animal they say he is, he is not a representative of his ancestors."

That, gentlemen, is the way to choose a sire. It is the course I should follow; and if I never reached perfection with my herd, I should expect to gradually but surely approach my ideal.

The Bath and West of England Show.

The Bath and West of England and Southern Counties Show, held at Taunton, May 29th to June 3rd, was successful in drawing together a large representation of high class stock of the various breeds. Heavy horses were largely represented by Shires, although there were also a few good Clydes. Hunters made a good showing. Hacks and ponies were light in numbers. In Shires, Sir Walter Gilbey, Bart., was the most successful exhibitor. Mr. Deadman won a championship Clyde prize. In cattle, Devons, Shorthorns, Herefords, Sussex, Jerseys and Guernseys were all out in good numbers, running, as a rule, between 30 and 40 entries. Aberdeen-Angus, Kerries and Dexters were present, but not numerous. In Shorthorns, Mr. Dean Willis was the most successful winner of premiums, taking six out of seven firsts, also two championships. Sir W. Williams, Bart., and Mr. A. C. Skinner were the chief Devon exhibitors. In sheep, Leicesters, Cotswolds, Devon Longwools, Southdowns, Hampshires, Shropshires, Oxford-Downs, Somerset and Dorset-Horns and Exmores were all represented. In the champion prize for three yearling ewes, all breeds were allowed to compete. The Longwools were quickly dispatched to their pens, leaving Mr. Ellis' Southdowns, Mr. Flowers' Hampshires, and Mrs. M. Barr's Shropshires to fight the battle. The decision was given in favor of the Southdowns.

Sir Walter Gilbey has been elected president of the English Royal Agricultural Society for the year following the Darlington show. The Society has now a balance on hand of £40,638; the membership numbering 11,149. The entries for the Darlington show number 1,703, compared with 1,864 at Cambridge. The number of horses exceeds that at Cambridge, there being 650, compared with 548 cattle, compared with 659, and 505 sheep, against 588.

Preparing Hogs for the Show Ring.

First, it is necessary to have a good herd to select from. If this be the case, and good judgment is exercised in the choice made, the chances of winning a fair share of premiums only depends upon getting the animals into blooming condition. In making the choice, remember that the pig must stand well and be active when ready for the ring, therefore the legs should be straight, the feet strong, and the back slightly arched. The ribs should be of good length and fairly well sprung. Heavy fleshing will tend toward drooping the back, springing the pasterns, and spreading and deforming the feet. The broad-backed, chubby pig is not the sort to depend upon as a future winner. The plainer-looking, rangy animal, if he has the aforementioned requirements, will make more of a beauty when fitted than one would be inclined to suppose. If a hog has a good frame and sufficient scale do not discard him because he is a bit plain.

Just how much to sacrifice in fitting a herd is an important consideration. Most exhibitors do not consider it wise to raise and use animals exclusively for showing, but take breeding stock and push them along quickly before the shows, allowing them to fall back to breeding condition as soon as the show circuit is completed.

In fitting a herd it is well to keep to as near natural conditions as possible. The show stock should be removed from the rest of the herd and placed in small grass plots, those having plenty of shade-trees preferred. Small lots are better than large ones, in order to prevent undue exercise. Pigs of different ages should be kept by themselves, so that each animal will be more likely to get its own share of the feed. Breeding boars will fit better and be less inclined to fret at the shows if fitted among a bunch of sows of their own age.

The ration to commence with should be of a sort to produce growth and strength rather than fat.

D. P. McCracken, in the *Prairie Farmer*, voices our ideas when he recommended equal parts of finely-ground oats and wheat middlings for slop, with the addition of one-tenth part of old-process oil-meal. Feed three meals per day, thin at first, and only thickening it very gradually. After the morning and evening slop is given, feed lightly with well-soaked corn, or, better, peas. (Some prefer finely-ground meal.) Never think of keeping grain feed before them all the time, but see that every bit is eagerly eaten at the present meal. They should be hungry before every feeding time. Any animal once surfeited recedes rather than advances for a few days at least. The evening feed of grain should be heaviest, to provide for the fast of the night. As the fitting advances, the slop should be thickened, and the corn or other grain ration increased until within a month or six weeks of the first show, when the latter should be lessened and the slop thickened until when ready to ship to the first show the entire ration should consist of the oats and middlings slop. Pigs so fitted will flesh more smoothly and hold their bloom better, and remain more active and healthy than if fed on more starchy or fattening food, such as all corn. There is also much less risk of injuring the breeding qualities by this sort of feeding. Now, for making a great finish, irrespective of cost, there is nothing more safe and satisfactory to feed than new milk—a quart at least to each pig, and as much more as possible fed as a drink twice a day. Skimmed milk can be had on most farms and should be used to mix with the chop. Mix the slop fresh every day, or at every feed is just as well, according to Mr. McCracken, quoted above. Keep fresh water, salt, and wood ashes, within reach at all times. A few shovelfuls of charcoal fed twice a week tends to keep the digestive apparatus in good healthy order. Special care should be taken of the troughs, to see that they are kept perfectly clean and sweet.

How often we see a show pig's feet in bad shape, resulting simply from neglect. When pigs are on sod and not doing much walking the hoofs grow very rapidly. They can be trimmed just as easily as a cow's feet, if gone at in a business-like way. The trimming can be done with a chisel on a floor, or with a pair of nippers and knife while the animal is lying. Keep the pores open by daily rubbing the inside of the fore-legs with a brush or a corn-cob. Give the herd your first attention, and success will follow.

We have to record the death of another Old Country Shorthorn breeder, Mr. Robert Thompson, Inglewood, Penrith, Westmoreland.

The Pig Controversy.

BY "CLAUGHBANE," MANITOBA.

For some years past it has been a rare thing to pick up any of our agricultural periodicals without finding an article or two in them upholding a breed or breeds of pigs in opposition to other breeds. So far as Canadian writers on the subject have gone, the controversy may be summed up as a disagreement between consumer and producer. The pork-packer (who is indirectly the consumer, for he must cater to the tastes of his customers) says:—"I want pigs that will give me long, deep and lean sides of meat—such as the Yorkshire and Tamworth and their grades."

The producer says:—"I can give you that in other breeds, and can produce the meat more cheaply than by using the breeds you recommend." In answer to this, the packer says:—"We will pay more per lb. for pigs of the type we want, so that it will pay you to grow them, even if they are not so cheaply fed."

The Berkshire men, who have taken up their pens in defence of their favorites, have argued that they can, by selection, give the consumers the desired conformation and lean meat which they demand; and while the breeders have not said much about it, there is a feeling among farmers that pigs of the Berkshire type take considerably less feed to produce a pound of pork than those grades which the packer calls for. It is not to be wondered that the Berkshire breeders fight hard in defence of their breed, as for years it has been the popular pig, and by far the greater number of Canadian pigs have a strong infusion of its blood; and when a few packers say somewhat suddenly, "We want no more of them!" it is not surprising that the breeders have something to say in the matter.

shire pig with a ham big enough to suit him."

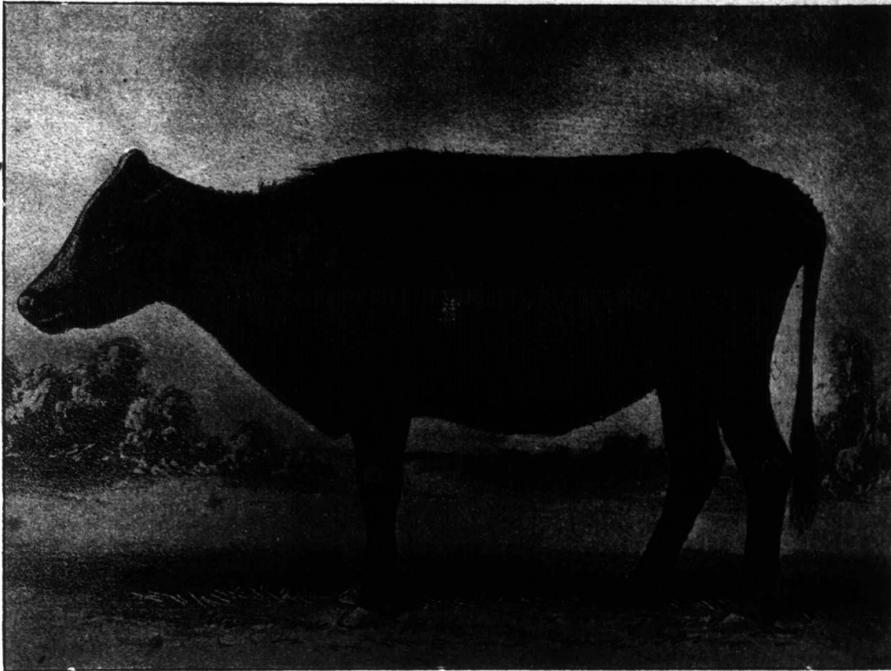
Now, I can quite understand his difficulty, but think the Berkshire is not so deficient in the size of the ham as it often seems to be; its very heavy shoulder giving it this appearance. This heavy development of shoulder is, I think, a defect in a pig, for the shoulder is the poorest quality of meat in the animal; it should, therefore, be rather light; and as the jowl also is anything but choice eating, according to present taste, it should be as light as possible, which is not the case with the Berkshire. There are, however, numbers of pigs of this breed that have shoulders which are not unduly developed; shoulders that, while not being light, are of a size in proportion to the other parts of the animal. Such pigs are long and smooth in appearance, with a good heavy ham. They are pigs that the packer, I should think, could not grumble at very much; and the farmer would find them profitable feeders, though in this respect they would probably not equal the shorter, thicker type; for I am of the opinion that the nearer the Berks approach the packers' ideal so will they take more feed to produce a pound of pork. While I believe it is all right for the breeders of the Berkshire to mold, by selection, their pigs to suit the demands of their customers (for they have pigs approaching that type), it seems ridiculous for breeders of Suffolks and other small breeds to do so, as I saw one breeder was endeavoring to do. These pigs have their place; but not as the bacon hog of to-day. No pig is easier fed or fit to kill so young as the Suffolk; and they will always be the most profitable animals to grow for fresh pork, near markets, for they can be killed at any time. They have their characteristics and uses. Why, then, change these and endeavor to make bacon

hogs of them, when there are other breeds better adapted for the purpose than they can ever be, unless they are so altered in appearance as to be unrecognizable.

Of the two breeds which the pork-packer recommends—the Improved Large Yorkshire and the Tamworth,—it looks to many as if they were advising the farmers to go back to raising the old-time razor-backs. Especially is this true of the Tamworths, and there are few who see them for the first time that are favorably impressed with them. They are, however, a pig that grows on you; and when one becomes used to their somewhat peculiar appearance their good points begin to show up. Euclid says: "A line is length without breadth." This is very nearly true of a Tamworth's head; for while the nose is long, the rest of the head is small and fine—not larger than would seem to be actually necessary. There is next to no jowl, a very light shoulder, with a great deep side and comparatively heavy ham.

Now, the question is, What is the difference in the amount of feed required to produce a pound of pork in one of these big, narrow, slabby pigs, compared with that required to do the same in a good average Berk? While some experiments have been made in this direction, I think that the Experimental Farms would be doing a good work by making a sufficient number of tests so that the farmers of Canada could know the comparative cost of feeding the different types of pigs. These long lean breeds are raised and fed very largely by the Old Country farmers, for the Berkshire is not so generally popular in England as in Canada, and these Englishmen know a thing or two about hogs as well as about other stock. They also know a good piece of bacon when they come across it; and as England must be the market for our surplus bacon, we can profitably learn a lesson or two from them, if we would have them buy this surplus.

[NOTE.—Our correspondent makes a suggestion that the Experiment Stations carry on tests to ascertain the comparative cost of feeding the different types of pigs which seem to commend themselves respectively to the feeder and the packer. At the last Sheep and Swine Breeders' meeting in London, Ont., the question of inaugurating "breed contests" at the Ontario Agricultural College Station did not meet with favor, and was deferred till next annual meeting. However, not a few speakers suggested that the feeding of "grades" rather than of pure-bred would be advantageous. We would throw out the additional suggestion in favor of feeding experiments to determine the comparative cost of bringing the same type of hog to a marketable condition under different systems of feeding, in order that we may get at the most economical process of producing the class of pork that the market calls for.—EDITOR.]



A BALTIC PROVINCE HORNLESS COW—THE SORT NOT TO BREED.

Now, let us endeavor to look at the case with a totally unbiased view—without a leaning towards any particular breed, and without prejudice against any.

The pork-packer has claimed that the farmers' interests and their interests, as to the kind of pig to be raised, are identical; and so they are to a very large extent, provided the packer deals fairly by the farmer; for the packer, to increase his business, must turn out an article which the market demands, while the farmer who supplies him with his raw material has the demand for this raw material increased just in proportion as the packer supplies his customers with what they want.

In these days of close competition, where one country vies with another in the markets of the world, it is ridiculous to consider what class of product can be most easily raised; the first thing we must ask ourselves being: can we produce the article the market demands? If this can be produced at a profit, all right. If not, it must be abandoned. It is useless to produce any commodity for which there is no demand, or for which a demand cannot be created. William Cobbett, in his "Cottage Economy," tells how a pig should be fed, and says: "The last bushel fed is the one that pays the best, even if the pig has to sit down to eat it." Now, pigs that reach this stage of fat are not generally less than eighteen months old; and with the knowledge we have today of pig-feeding, we know that a bushel fed at this age is not as profitable as if fed to a pig a year younger; and, moreover, the time when such meat was wanted is gone by, even by that class in whose interests he was writing, and whom he would have live on bread, bacon, and beer.

A Manitoba Berkshire-breeder, speaking at the annual meeting of the Central Farmers' Institute, said "he had found it very difficult to get a Berk-

Canadian Winners at the Philadelphia Horse Show.

The Philadelphia Horse Show held at Wissahickon Heights, a very suitable situation, ten miles out of the city, was like all late shows of its kind, a grand success. In quality of horses shown there was a marked improvement; its social aspect was, as usual, brilliant; and the financial result was quite satisfactory.

Canadian winners were as follows: Winoga and Egbertetta, Standard-bred mares, bred by W. W. McLeod, Winnipeg, Manitoba, exhibited by E. T. Stotesbury, won 1st and 2nd in breeding class, three-year-old and over, shown in single harness; 2nd and 3rd in driving class, mare or gelding, shown to waggon; 1st, driving class, pair of mares or geldings, shown to waggon; 3rd (Winoga), single driving class, for best roadster and best-appointed turn-out; also 1st, best pair of roadsters and best-appointed turn-out; 1st, for best pair of matched light-harness horses, Standard or non-Standard, stallions, mares, or geldings. This valuable pair of mares won in money \$540.00.

In Hackney stallions, 15.2, three years and over, Ottawa, lately sold by Robt. Beith & Co., Bowmanville, Ont., to F. C. Stephens, Attica, N. Y., won 2nd premium, being beaten by Cadet, exhibited by A. J. Cassatt, Bourne's Performer and Rosseau Fireball, yearling stallions, exhibited by H. N. Crossley, won third and fourth premiums. Mare, 15 hands and under, with foal at foot—Winnifred, imported and owned by R. Beith & Co., and lately sold to F. C. Stephens, Attica, N. Y., won 4th prize, and foal 1st. Three-year-old Hackney mares—Althorpe Duchess and Althorpe Countess, shown by Horace N. Crossley, won 2nd and 3rd prizes.

In the road class, pair of mares or geldings, 15.1 and under 15.3, a pair bred by J. E. Robinson, Ontario, won 1st prize.

In the saddle-horse class, mare or gelding, 15.2 and over, Aspinwall Belle, bred by Wm. Chambers, Canada, won 3rd prize.

Several other Canadian-bred animals won premiums.

Feeding Fat to Cows.

In a previous issue we published the results of feeding dairy cows tallow in conjunction with their regular ration. The experiment was conducted by a dairyman in Schoharie Co., N. Y., who claimed that the fat fed was largely reclaimed in the milk of the cows. In order to prove the truth of this claim, Prof. H. W. Wing, of Cornell University, New York, had extensive experiments conducted along the lines indicated. On September 14th, 1894, five cows of different ages and at different periods of lactation were selected from the University herd. The cows were at pasture, and were receiving a grain ration of eight pounds per day of an equal mixture of wheat bran and cotton-seed meal, which they continued to receive. During the first week no change was made in the ration. The fat was determined in each milking separately by the Babcock test. At the conclusion of the first week four ounces of tallow per day were added to the grain ration night and morning. The cows ate the tallow readily, and as fast as seemed best the tallow was increased four ounces at a time until all of the cows were eating two pounds each per day. The experiment was continued until the end of the tenth week, when the tallow was discontinued, and the milk weighed and fat determinations made for two weeks longer. No visible effect was noticeable in the health of the cows at any time during the experiment from the effect of feeding tallow. In general there was no effect in the yield of milk or percentage of fat that could be traced to the feeding of tallow. During the first two or three weeks the percentage of fat rose slightly with several of the animals, but towards the close of the experiment the percentage of fat fell slightly with some of the animals. There was a constant downward tendency in the yield of milk with all the animals, due undoubtedly to the advancing season and the change from pasture to less succulent feed. When it was found that no marked changes in the quality of milk were taking place, it was decided to select another lot of cows for further experiment. The details of this second experiment were in all respects the same as with the first, except that they received winter feed instead of grass, etc. The results with the second lot did not differ from the first, therefore the conclusions arrived at by Prof. Wing, as given in Bulletin 92 of Cornell Experiment Station, are: "In this quite extended trial there has been no increase in the fat in the milk by feeding tallow to the cows in addition to a liberal grain ration. These results were obtained with ten different cows, of two breeds, of various ages, in various periods of lactation, extending over a period of ten weeks, for at least six of which they ate two pounds per head per day of tallow."

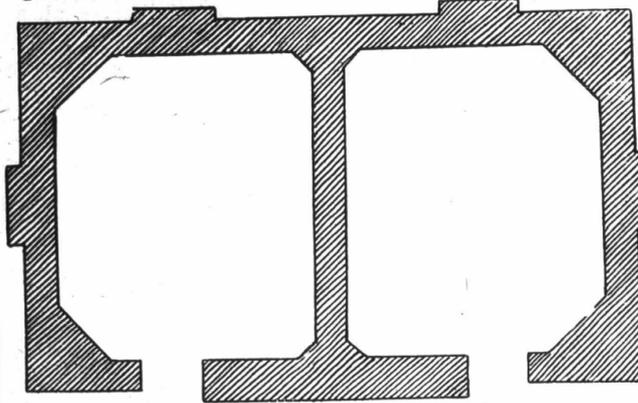
The Veterinary Department under the British Board of Agriculture is now known as the Animals Department, the executive head of which is Major Tennant. The veterinary profession is complaining vigorously of the change.

The death is announced of Mr. Matthew Arnold, of Westmeon, Hants, one of the most successful breeders of Hampshire-Down stock. Mr. Arnold was frequently a judge at the shows of the leading English agricultural societies. He was sixty-seven years of age.

FARM.

A Cement Concrete Silo.

The accompanying illustration represents a cement concrete silo put up inside a barn, by Mr. Isaac Usher, Thorold, upon the farm of the Bothwell Dairy Co. It is a double silo, having outside measurements of 30x18 feet and 24 feet high. The walls and partition are 18 inches thick, except at the projections at the back, front, and either end, as shown in cut, where it is two feet thick. These extend from the ground to within eight feet of the top, and are placed there to stiffen the walls. These are necessary only when the silo is built a short time before filling. When the silo can be completed six weeks before filling, 18 inches at bottom, sloping to 9 inches at top, will be guaranteed by Mr. Usher to be perfectly satisfactory. The corners at either end have four feet cut off to insure perfect settling, and also to strengthen them. The other corners have just one foot cut off. The doorways, which are three feet wide, extend from the floor of the stable to the top of the silo. The doors are of two thicknesses of inch-boards nailed across each other, with tar-paper between. The upright boards fit into the three feet space, while the cross-boards extend out four inches on either side and pass the edges of the doorway inside.



The cement for walls was mixed with the gravel in the proportion of six of gravel to one of cement. The inside of the walls is finished with a coat of cement and fine sand, half of each, making a finish as smooth and almost as hard as marble. The silo was filled last autumn with Mammoth Southern Sweet Corn, which was not as mature as it should have been; but notwithstanding this, the silage came out in grand condition, without a particle of waste, except a few inches on the top, which cannot be avoided with any silo. The cost of the entire structure (not including gravel, which the Bothwell Dairy Co. provided) was \$275.00, which might have been much less if the heavy supports and thick corners had not been put on, which could have been dispensed with had the silo been built six weeks previous to filling, as it takes considerable time for the cement to harden to its utmost strength. The gravel used was all hauled by train from Komoka, and all labor hired.

The cement silo has a great advantage over the wooden structure, as it will last hundreds of years, and keep silage as well at the end of that time as ever it did. It will never need repairing, re-painting, and rats cannot get into it. There is a great future opening for this concrete cement, as soon as its good qualities become known.

The Bothwell Dairy Co. have on their farm an extensive cheese and butter factory combined. They keep from 150 to 200 cows, and are also supplied milk from neighboring farmers. Last winter was their first experience with butter-making, which was quite satisfactory. Their daily make was from 200 to 250 lbs. per day, which they sold to the Canadian Packing Co., London, as per contract, at 19 cents per pound for the entire season. The butter is put up in pound blocks, in parchment butter-paper, bearing the following stamp: "Choice Creamery Butter, manufactured by the Bothwell Dairy Co., Bothwell, Ont." It is the intention of this firm to put up another cement concrete silo, similar to the one they now have, and increase their cow stock.

The following have been appointed as Toll Roads Commissioners by virtue of an act passed last session in the Ontario Legislative Assembly, empowering the Lieutenant-Governor to appoint a commission of one or more to examine into the tolls chargeable or charged on roads or bridges within the Province:—J. J. Mason, Hamilton, Chairman; T. H. A. Begue, Dundas; Arch. W. Campbell, Dundas, and W. S. Campbell, Brant. We might also add that by legislative enactment the maximum rate of toll roads in the Province is now two cents per mile up to five miles for double rigs, and one and a-half cents for singles. Provision is made whereby persons may have the tolls payable by them annually commuted.

A foal when a month old, if fat and sound, resembles very closely what its mature form will be.

Current Comment from Manitoba.

"BONUSING THE FOREIGNER."

Nearly every paper you take up at this season of the year contains one or more notices of the arrival and careful settlement under Governmental help and supervision of some party of immigrants—Germans, Swedes, Hungarians, Poles, &c., and even of Jews, but do we ever hear of a party of English, Scotch or Ontario settlers being "personally conducted" by a brother or other relative of a Cabinet minister? Many of these foreigners also are assisted in various ways: by loans on their homesteads; goods and implements are bought in large quantities for them at reduced rates; assisted and even free passages are allowed them; they have special interpreters for their benefit, and, after all that is done for them, do they stay in the country, and do they turn out to be a desirable class of settlers? How many of those Jews that came from Russia, and were settled south of Wapella, are there now? How many of those Hungarians that were planted north of Whitewood proved desirable immigrants? The Germans, Swedes, Icelanders, etc., generally are good settlers, and stay with us—but why not assist people of our own race and speech? If we must "bonus" people to come here, surely we ought to try and attract our own kith and kin, whether from Ontario, Britain, or the United States; they would require no interpreters, and a little of that assistance

in choosing locations that is now lavished so freely on foreigners could be given them. Again, as the Government might still wish to "bonus" someone or something, they might do a great deal worse than bonus the native-born immigrants—the children of farmers whose families of children exceed six, for instance, all of whom live on the land and help to work the farm. Quebec gave a free grant to large families of children; Manitoba might go one better and assist those already on her land to stay there. The bonus might take the form of free education at an agricultural college or experimental farm, dairy station or university. I don't think the free grant of land in excessive quantities is to be commended, as it is apt to make people land-poor. Many of the settlers are in that

condition already. I may state here that I don't want a "bonus" myself, and that I have not six children, but there are numbers of men here who have large families, to whom a little assistance would be very welcome, and who would stay here and grow up with the country, and these are the people to be assisted instead of the indigent foreigner, who is at present assisted by us to oust us out of our own country and our own markets—*verbum sap.*

A PLACE FOR EVERYTHING.

Get a board and on it paint—"A place for everything, and everything in its place." Put this inside your stable-door, where it will catch the eye of the hired men and boys. Perhaps, then, you may have a chance of walking round your stock-yard without running a fork-tine into your leg or tumbling over a wheelbarrow in the dark, carelessly left right in the pathway to the granary. No business man would put up with such carelessness on the part of his employes for a single day, and why should a farmer?

ECONOMIZING IN SMALL THINGS.

I would like to point out a few methods of economizing, in which I have had some pointers recently. Division fences in many cases, especially on our wheat farms, might be dispensed with. I know several cases in which the outside "line" fence is all that is required on a section with four separate farms. This saves each man a half-mile of fencing. Again, one good roller, one press drill and say two binders are enough for one section of land occupied by four men. One extra good bull and one pedigreed boar would do also. By combining thus they could buy a very fine animal, whereas if each kept one, they would probably only be mediocre. One grain-crusher and one circular-saw are ample for some five families near me. Shoeing horses is nearly always superfluous. I have had no horses shod either summer or winter for seven years, and they never were freer from sprains. By buying our field and garden seeds, implements, &c., "en bloc," we can make a substantial saving in both purchase price and freight. Surely we ought also to be able to buy a barrel of coal oil, or barrel of currants, a chest or two of tea, between three or four, and thereby get them at wholesale. By making up a carload of pork or beef, each can save a little in freight over individual shipments. By a little arrangement and mutual forbearance, a great deal of the "tripping" made by farmers could be done away with. I know three farmers who take their turn in going to town with the butter and other produce of the three farms—they all deal at one store—they thus save two journeys each in three weeks. Too many of us have been in the habit in the past of shutting ourselves up in our respective shells, and if there was any one party whom we would not "chum" with, it was our nearest neighbor. Is this neighborly, is it profitable, is it a Christian proceeding? Shall we go on thus, or will you and I try to abandon this dog-in-the-manger policy for this year at least. INVICTA.

The Cost of Producing a Pound of Butter.

BY F. J. S.

We do not write upon this subject without some idea of the difficulty attending it. Our purpose is, largely, to open it up, and possibly, also, the mind of the farmer and dairyman. That our figures may be reasonably accurate, and may commend themselves to thinking men, we have supposed a basis for computation as follows:—

1. That a cow gives 5,000 pounds of milk annually.
2. That 200 pounds of butter is made from the milk, and that, in consequence, 25 pounds of milk make, on an average, one pound of butter.
3. That she milks nine months.
4. That to deduct the value of the skim-milk and buttermilk from the cost of the whole milk, and debit the butter with the remaining cost, is a proper method of calculation.

The value of these by-products we have placed at 20 cents per hundred pounds, which we think a safe figure.

We present our subject under the following heads: (a) Cost of Grass Butter; (b) Cost of Fall Butter; (c) Cost of Winter Butter; (d) Cost of the Year's Butter.

(a) COST OF GRASS BUTTER.

As all summer butter is not, strictly speaking, grass butter, we have considered this period as extending not longer than from May 20th to July 20th. We would further state that this computation throughout is based upon the general practice of having cows fresh in late winter or early spring. We have taken the first of April for convenience.

Feed—Pasture, 2 months, at \$1.25 per month.....\$ 2 50
Labor—(Itemized below)..... 3 30

Milking (15 minutes per day), daily......02 cents.
Caring for milk, washing utensils, etc......02 " "
Churning and marketing......01 " "

Total per day......054 " "
Total for 60 days.....\$3.30

All labor throughout we charge at ten cents per hour, board included.

Proportion of Cost of Feed During Idleness—The following ration may be considered a fair one for the three months, while the cow is not milking:—

Ensilage, 40 lbs. (at \$1.50 per ton)......03 cents.
Straw, 10 lbs. (at \$4.00 per ton)......02 " "
Grain, 2 lbs. (at 5c. per lb.)......13 " "

Total cost per day......63 " "
Total cost for 90 days.....\$6.00

The proportion of this cost to be debited to grass butter is $\frac{1}{3}$ of \$6.00, or \$1.33. These, then, are debit items, but there is a credit item in the form of skim-milk and buttermilk.

We now offer a table of the calculated yield of butter for each separate month, which may be accounted sufficiently accurate for the purposes of further computation.

Month	Yield, lbs.	Period	Total Yield
April.....	30	Spring	60 lbs.
May.....	30		
June.....	30		
July.....	26	Summer	56 "
August.....	22		
September.....	20	Fall	60 "
October.....	18		
November.....	14		
December.....	10		
Total yield.....	200 lbs.		

The milk production for the summer period will then be 50x25 (pounds butter by pounds of milk required to make a pound of butter) or 1,400 pounds. As the total milk, minus the butter, will be approximately the sum total of skim and buttermilk, 1,400-56=1,344 pounds, will be the by-products; 1,344 pounds at 20 cents per 100=\$2.68. Our position is now as follows:—

Dr.—Feed, \$2.50; labor, \$3.30; proportion of food of idleness, \$1.33; total, \$7.13.

Cr.—1,344 pounds skim and buttermilk, \$2.68; cost of 60 days' butter (56 pounds), \$4.45; cost of 1 pound of butter, nearly .08 cents.

(b) COST OF FALL BUTTER.

Period.—July 20th to October 20th—3 months—90 days.

Feed.—Grass, stubble pickings, etc., equal to one-half of total feed required, foots up 62½ cents per month, or \$1.87. Forty pounds daily of green fodder, chiefly green corn, which we estimate at \$1.00 per ton, costs a further sum of \$1.80, and two pounds of grain daily, at 3 cent, equals \$1.80.

Total cost of feed.....\$ 4 87
Labor (at \$1.65 per month)..... 4 95
Proportion of keep of idleness (3-9 of \$6.00)..... 2 00

Total.....\$11 82
Value of skim and buttermilk, 1,440 lbs. at 20c., equals..... 2 88

Cost of 90 days' butter (60 lbs.).....\$ 8 94
Cost of 1 pound of butter (nearly)......15c.

(c) COST OF WINTER BUTTER.

November, December, April, and May—4 months—120 days.

The following ration for three months can hardly be considered excessive:—

Ensilage, 40 lbs. (at \$1.50 per ton)......03 cents.
Hay and straw, 10 lbs. (at \$6.00 per ton)......03 " "
Grain, 6 lbs., at 5c. per lb......04 " "

Total cost of daily ration......10 " "
Total cost of 4 months (120 days).....\$12.00

Labor (at \$1.65 per month).....\$ 6 60
Proportion of feed of idleness..... 2 66

Total cost for four months.....\$21 26
Value of by-products, 2,016 lbs., at 20c.....\$ 4 03
Total cost of winter butter (84 lbs.)..... 17 23
Cost of 1 pound of winter butter..... 20½c

(d) COST OF THE YEAR'S BUTTER.

May-July.....2 months.....\$ 4 45
July-October.....3 "..... 8 91
October-December.....4 "..... 17 23
April-May.....1 "..... 10 13

200 lbs. of butter cost.....\$30 62
1 lb. of butter cost..... 15½c.

Cost of feed per cow per annum.....\$25 37
" milk per 100 lbs. (food alone)..... 58
" one lb. of butter (food alone)..... 123
" " " (Minn. Station, U. S.)..... 103

The latter is based upon an average annual product per cow of 6,400 pounds of milk, the cost of milk being, in their case, 62 cents per 100 pounds.

By way of summary we would state that in this computation it is well to remember that the cow is fresh April 1st. It would certainly be interesting to compute the cost of butter per pound from the fall cow did space permit. We recognize the immense variation in the cost of a pound of butter. Cows giving but 175 pounds annually would, upon a similar line of calculation, make butter costing nearly three cents per pound in excess of above estimates. Cows giving butter in proportion, for a period of ten and a-half months, would make a pound of butter for about three cents less than the above estimates. Without ensilage for winter feed, the cost of a pound of butter is frequently higher by four or five cents per pound.

In this estimate the labor is all paid for, but where the farmer has all his own help, and the farm is owned by him, then what is here debited as cost of labor will become rather return for labor invested, and to that extent a pound of butter is cheapened.

Butter Tests in Jersey Island.

On May 15th, the Royal Jersey Agricultural Society held their 3rd annual butter test, at which gratifying results were obtained. The entries numbered fifteen, out of which number eleven cows put in an appearance. Six of these made over 2 lbs. of butter each in a day, and two reached the large quantities of 3 lbs. 4½ ozs., and 3 lbs., respectively. The cows were stripped at 5 p. m. on Tuesday evening, and were milked for the test at 5.30 a. m. and 5 p. m. on Wednesday. The milk was weighed after each milking, and a sample was taken each time for testing by the Babcock tester. On Wednesday evening the milk was passed through a separator, and a sample of the separated milk was taken at once for analysis. Churning commenced at 7.40 a. m. on Thursday. Samples of the butter-milk were also taken for analysis. The lowest record was 1 lb. 4 ozs., and the highest, 3 lbs. 4½ ozs., with an average of 2 lbs. 3 ozs. in 24 hours. One noticeable feature of the test was the closeness with which the results of the churn agreed with that of the Babcock test, their being a slight variation in favor of the churn throughout the whole number of entries.

APIARY.

Comb Honey.

As comb honey commands a higher price than extracted, special attention is due to its production. While it is well to put on a super before the flow comes, it is not well to do it so early as to run risk of chilling the brood. There are two circumstances which should govern in this matter: First, to have them on before the white clover flow commences; second, before the swarming tendency shows itself strongly. When the first lot of sections are about filled, they should be lifted up and a second lot placed under them, and when these are partially filled a third lot should be put under the second; this may be continued to the extent of four or five supers. It is necessary to watch the honey flow carefully, so that no more sections will be put on than will be filled and capped. Impatient bee-keepers are apt to make a mistake by removing the honey before it is ripe. As a rule, the longer it remains on the hive the better it is. Should dark honey commence to come in, the sections should be removed at once, in order to retain the finest quality. When it comes to removing supers, E. T. Abbott, in the American Bee Journal, states that he has found the use of a bee escape an absolute necessity. It is a great satisfaction to slip one of these little "machines" under three or four well-filled supers early in the day, and at night find the bees all out, and the honey uninjured by not having little holes bitten in the cappings, as is sure to be the case if removed by any other process.

Now that the honey is secured, it is well to look carefully after the marketing of it. The appearance of the goods when offered has much to do with the price obtained. The first thing necessary is to see that the honey is carefully sorted. It should then be thoroughly cleaned, and put into neat, white crates, and have every crate contain the same grade throughout, so that the front layer will be a true index of every section in the crate. If this is done conscientiously, and the crates stamped with the producer's name and address, that man will not have to go begging for customers.

In this connection a quotation which Mr. Abbott uses fits in well: "Carelessness is the costliest habit one can fall into; and trickery, while it may succeed for a time, must cost more than it comes to in the end."

Work for June.

BY JOHN MYERS.

June is one of the busiest months of the year for the bee-keeper, and more especially so if he has not previously got his hives all made up and painted, with frames ready and foundation in them. Nearly all the honey gathered in Ontario will be taken in this month and next, and it behooves us to see that the bees make the best of their time. No colonies should be allowed to loaf their time away for want of room. If you are running for extracted honey the upper stories may be put on as soon as the bees commence to hang out at the entrance, or show other signs of needing more room. Colonies intended to gather comb honey had better not be let into the sections until they commence to build new white comb along the lower side of the top bar of frames, as when sections are put on we want the bees to commence to draw out the foundation as soon as they are let on to them, otherwise they will be apt to gnaw holes in the starters, and probably tear them completely out. But we must use the strongest colonies we have to work in sections; so how are we to give them more room before we are ready to let them into the sections? Well, the plan I follow and like very much is, when the colony gets strong and in need of more room, to put on a half-story, which generally gives them plenty of room until the honey begins to come in. After they have commenced storing in this half-story fairly well, I raise it up and place a case of sections underneath. In nine cases out of ten the bees will commence to work in the sections at once, while if the sections had been placed on top before they commenced working in the half-story, they would not start in the sections until the brood chamber was filled up with honey, and they were compelled to go somewhere else to find room. Then there will be swarms to hive and look after. It is always best to have the hives for new swarms ready, and placed on their stands, with foundation or combs in them, so as to have as little trouble as possible when the swarm issues. There are several methods of handling swarms. The one I like best, when a person can always be sure of being present when the swarm issues, is as follows:—Previous to swarming time I hunt up the queen, and clip one of her wings; then when the swarm commences to come forth I go with cage in hand and look in front of hive, where the queen will generally be found hopping around on the ground trying to fly. I place the cage over her, and when she runs up into it, I lay it somewhere out of the way, or put it into my pocket; then, after the bees are all out, I move the old hive to a new location, and put the new hive that I have prepared to receive the swarm in the place the old one occupied. Now, place the cage containing the queen on the alight board. After the swarm has flown around in the air for a time and find their queen is not with them, they make for their old home, but, in the meantime, we have changed it for a new one. On finding their queen there, they will all cluster in front of the hive, when I release the queen and let her run into the hive, and the bees follow, when your swarm is hived. The only drawback to this method is that if you are not on hand at the time the swarm issues the queen is apt to get lost. But whatever method you use of hiving swarms, always put the new swarm on the old stand, unless you want them to swarm more than once. If the swarm is placed where the old hive stood, all the bees that have ever been to the field to work will return to the old stand. This makes the swarm strong, and reduces the number of bees in the old hive to such an extent that they give up the desire to swarm again. Of course, by this plan, you will not get much honey from the old hive, but the swarm will be so strong that they will gather enough more to fully make up for the loss in the other one.

A great deal of opposition was developed in Massachusetts against the tuberculin test crusade. The State Senate finally amended the Tuberculosis Bill, so that it forbids the use of tuberculin by inspectors without the consent of owners, unless the cattle have been pronounced tuberculous on physical diagnosis. The appropriation for the war against tuberculosis was cut down over one-half. On this point the British Live Stock Journal says: "We shall have a good deal of similar opposition in this country if there should be an attempt to compel the slaughter in wholesale fashion of cattle as the result of the application of the tuberculin test, until much more is known about the operation of that specific than is the case at present."

Says the American Agriculturist, in pointing out the folly and shortsightedness of making "filled-cheese":—"To-day a common occurrence is to see on the bill of fare of first-class hotels, and restaurants, dining cars, etc., the legend *Canadian Cheese*. One never reads on such lists of New York, of Ohio, or of Wisconsin cheese at all. This poor-cheese business was a cheat and a fraud, and in the end has punished its promoters as well as those who have not practiced this method of trying to get rich fast." The lesson we would deduct is to keep up the good name of our goods as high as possible. The higher the better.

The future height of a newly-born foal can be fairly accurately estimated by doubling the length of the fore limb from the fetlock joint to the point of the elbow.

POULTRY.

Seasonable Poultry Notes.

Now that the hatching season is about over, it is a great mistake to allow the cocks to run with the hens, as a fertilized egg will go off flavor in hot weather much more quickly than one not fertilized, even though they are not set upon by a broody hen. If a hen is allowed to sit upon a newly-laid fertilized egg for only twelve hours, the flavor of that egg is ruined, but an unfertilized egg may be taken from an incubator on the sixth or seventh day and be safely used for cooking purposes. Many of those who use incubators for hatching chickens, take the unfertilized eggs that have been subjected to incubator temperature for 21 days and boil them hard for the chickens.

Very much was said upon this subject at the last annual meeting of the Ontario Poultry Association, where it was generally accepted that there is nothing to be gained by allowing cocks to run with laying hens, except for hatching, and a great deal of loss does accrue by allowing eggs for consumption to become fertilized. Under the present current method of allowing cocks to run with the hens at all times, it is almost impossible to buy, in a town or city market, a dozen perfectly fresh eggs. Some will be added, some half hatched, and almost all off flavor.

In putting down eggs for winter use, or to hold in pickle for a higher market, removing the male birds from the laying hens will be found especially valuable. What is to be done with the roosters? will be a question some will not know how to get over; but the ordinary barn-yard cock is not usually an expensive bird, so that he may be beheaded for a roast or pot-pie, and another one purchased the next spring as a stock bird. There will be a double benefit in this, as there will be less scrubs and mongrels used, which will tend to improve the stock.

If every farmer would pay more attention to the marketing of positively fresh eggs, there is no doubt but the consumption would very much increase, which would give the price a great lift. Says A. G. Gilbert, of the Central Experimental Farm, in the Journal of Agriculture:—"Bad eggs come to be sold for the following reasons: 1st. Because the eggs are not gathered once or twice a day. 2nd. By not having proper places for the hens to lay. 3rd. Allowing the nests in which the hens usually lay to become infested with vermin, and so causing the layers to avoid them. 4th. Allowing male birds to run with the hens, and the eggs so becoming fertilized. 5th. Allowing broody hens to sit upon eggs intended for market. 6th. Collecting eggs from nests stolen by the hens and selling such eggs on the market."

Weed Out "Scrub" Chickens.

BY JOHN J. LENTON.

In rearing pure-bred stock, the industry is very frequently wounded in the house of its friends. It has been the practice of some in the past to keep everything in the shape of a pure-bred that possessed a head and two legs. As a consequence a considerable portion of it is inferior in quality to much that is well-graded. The admirers of common fowls have not been slow to perceive this, and they have fastened on it as an argument in the support of the system of poultry raising to which they cling. If only that which is suitable for retaining for breeding purposes were kept, the prestige which thoroughbred stock would carry would be much better than it is. It is a misfortune to keep a pure-bred female to breed from which is not suitable, but to keep a male is simply calamitous. With the most skillful breeding, there will be some culls. It is better, therefore, calmly to submit to the inevitable and to consign such to the block at the earliest possible moment after their unsuitability to be used in multiplying the race has been discovered. Some breeder may be laboring under the delusion that it is more profitable to sell them for fat prices to inexperienced breeders, or to those who may be desirous of starting a flock, than to fatten them for market. They are slow to learn that every bird they send abroad is an advertisement for their stock, and that, when inferior, it will advertise them more effectively adversely than one of an opposite character would effect them favorably. The "survival of the fittest" is the only safe rule for breeders to follow who are determined to come to the front.

It is said that poultry fanciers are very much given to backbiting or misrepresenting the stock of others handling the same varieties. If that be so, it is a very shortsighted mistake. It will not help one man up to knock down the ladder on which another might climb to success. Be charitable.

Selling Stamped Eggs.

The old saying, "There is always room at the top," is as applicable in selling eggs as in any other line of business. The Poultry Keeper gives one man's plan as follows:—"Mr. T. T. H. knows that customers are willing to buy the best, and pay for them, so he sends out postal cards to all those whom he supposes are desirous of obtaining fresh eggs of finest quality, telling them that they can be purchased from X. Y. Z., K. street." These eggs are produced on the Port View Poultry Farm. Every egg stamped and guaranteed to be not only not rotten, but absolutely fresh, laid by fowls in perfect health, and fed on purest food to be obtained. The eggs are delivered at the store every Tuesday and Friday morning. T. T. H. no doubt sells more eggs, and gets more for them, than any other person in that section.

GARDEN AND ORCHARD.

Horticultural Notes.

BY ELLIS F. AUGUSTINE, LAMBTON COUNTY, ONT.

The severe weather of the past winter has most forcibly demonstrated the necessity of planting none but the most hardy varieties of small fruits if full crops are to be obtained. In black caps, Souhegan and Hilborn have come through the winter practically uninjured, while Gregg has suffered most severely, many bushes being literally killed to the ground. It would pay most handsomely to lay down this variety during winter. With us Hilborn stands pre-eminently ahead of all other black caps as a home or market berry, and it will pay all growers to have this variety well represented in their collection. This variety was originated by W. W. Hilborn, formerly Horticulturist at the Experimental Farm, Ottawa, and now of Leamington, to whom all fruit growers are indebted for one of the best black raspberries that has ever been introduced. Shaffer's Colossal has also suffered severely, but this variety throws out such strong, fruit-bearing stems that a fair crop is assured even when the bushes have been severely injured. So far as our experience goes, Snyder is the only blackberry that will successfully withstand our severe winters, and even this has suffered to a certain extent; while Kitlatinny and Agawam have been killed to the ground. I have heard glowing accounts of a variety called Western Triumph, but have had no personal experience with it. Do not neglect to pinch back all new raspberry canes when they have reached a height of three feet, as this not only increases the yield of fruit, but acts as a protection against winter killing.

In the accompanying illustration Fig. 1 shows a bush that has been left untrimmed, while Fig. 2 is a good illustration of how a bush should appear after it has received its final pruning, and all the laterals have been trimmed-in.



Fig 1.



Fig 2

All growers now agree that it is best to leave the trimming-in of the laterals until early spring, as they harden up much better, and as they usually kill back several inches from the end, whether cut back or not, this dead wood is all removed by trimming after all severe frosts are past.

One valuable lesson which we have learned during the late frosts is that the most tender vegetables may be saved after freezing by spraying liberally with cold water before the sun's rays have fallen upon them, and I have no doubt but that the same method would prove effectual in saving large and small fruits. It certainly is worth trying.

VETERINARY.

Joint Disease of Foals.

A disease known as "joint ill," "navel ill," or "arthritis," has become pretty common in many horse-breeding sections during the last ten or twelve years. It has, however, for the last half-century, at least, given more or less trouble in breeding studs of this and the Old Country. In America, the trouble confines itself chiefly to foals, but in Europe, calves, lambs, pigs and puppies are at times affected. Sometimes it occurs as an isolated case in a stud, but it not uncommonly happens that many animals in the same neighborhood are simultaneously affected. Only a few years ago we knew of one district not more than 12 miles square, where one veterinary surgeon treated upwards of 35 cases within the two months following April 1st, many of which died, some recovered partially, and others were apparently restored to perfect health. The Journal of the English Royal Agricultural Society has in a late issue an exhaustive treatise on this subject by John Penberthy, of the Royal Veterinary College, from which we glean the following points:—

In affected animals of the various species there are some points in common. The subjects are very young and the joints are usually implicated. The most important knowledge of any disease of this character is that which concerns its cause. With regard to the cause of joint ill, until comparatively recently there has been a great variety of opinion, which, even at the present time, cannot be said to be unanimous. By the aid of the microscope it has been clearly demonstrated that the cause is not scrofula, as was formerly supposed. Experiments and closer observation of the living and the dead have yielded evidence of the communicability of the disease from the affected to the healthy animal, so that it has come to be regarded as a truly con-

tageous affection, and if communicated from the parent to the offspring it depends on some other cause than that of scrofula.

It is beyond question that the disease is due to the entrance of a germ, and that this entrance may be, and frequently is, effected after birth. Certain circumstances seem to indicate that the germ, or virus, may enter the system of the foetus while in the womb, also that it may gain access during the act of being born. There is ample reason to believe that whenever the germ enters the subject the place of entrance is the navel, and that before it is closed or healed after birth. It is then carried by the blood-stream and distributed to various parts of the system, among other places particularly selecting the joints. In the situation in which the microbe is arrested, it sets up inflammation which results in the collection of quantities of matter of a peculiar character. In addition to this local effect there is the production of a debilitating fever and other systemic effects.

As implied by the majority of names given to the affection, the more prominent symptoms are associated with the joints or the navel. Before swelling in these situations is appreciable, it may, however, be noticed that a few days after birth the young animal has great difficulty in moving; is more or less lame, and manifests the indisposition to move by constantly lying down or standing in one position. Debility is evident; sucking is not carried on vigorously or continued; appetite is sometimes absent, and the little subject is tucked up; the coat becomes dry and harsh. There is often a slight discharge from the eyes and nostrils. The navel is generally swollen, open, and discharging matter; and though sometimes it is healed on the outside, its neighborhood is inflamed. In the course of a few days, at some of the joints or other external parts there are noticed hot and painful swellings, which assume a considerable size. Any joint may be affected, but it more frequently happens in the hock, stifle, hip or knee. In these situations abscesses form which sometimes burst and discharge a peculiarly unhealthy-looking material. The animal loses flesh very rapidly, which condition increases with the disease. The pulse, at first small and weak, becomes weaker and weaker, till it is scarcely perceptible. Diarrhoea is a prominent feature as well as a continued high temperature.

As a rule the symptoms are manifest from seven to twenty days after birth, although in some cases it has shown itself when a foal was two days old; the disease usually runs through its course from seven days to three weeks. Sometimes the patient dies within three days of its being noticed to be ill; others may "hang fire" for months, in which cases it is questionable whether or not to "knock the animal on the head," as it seldom amounts to more than a useless cripple.

The treatment involves the consideration of curative and preventive measures. Clinical experience and the nature of this affection tell us that curative treatment is not hopeful. After entrance of the poison into the system, despite the adoption of all known agencies, a large proportion of the affected will die, while of those which survive many only drag on in unprofitable existence. In all cases with foals it will be advisable to engage the services of a veterinary surgeon, for each individual case will call for treatment special to its circumstances. Occasionally an unhealthy condition of the cord, or navel, and a collection of matter there, may be discovered before the germs have become distributed through the system, when local treatment, by removing the diseased parts and killing the germs, may avert further mischief. It may also happen that the secondary swellings are in a non-essential part accessible to the knife, when opening of the abscess, discharge of its contents, and disinfection of its cavity, associated with attention to the navel, may be followed by good recovery. This treatment, of course, calls for all the skill of the expert, and even with it success is not common. Once the morbid condition is thoroughly established in the body, cure is not likely to be effected, while in most of those cases in which the active process is overcome the subject remains an unsatisfactory animal.

If, however, the curative treatment affords so little prospect of success, such may not be said for the preventive. Preventive measures should commence by the adoption of means to avoid the introduction of germs into our studs and farms. The health of pregnant animals entails proper food, regular feeding, exercise, and sanitary surroundings.

Joint disease usually occurs amongst foals whose dams have been stabled, and rarely among those born and remaining in the fields. In view of preventing this malady, it cannot be deemed good practice to keep one box especially for foaling mares. For if, by accident, the box becomes contaminated, every subsequent occupant will be liable to infection. If possible, mares should be placed for foaling in thoroughly disinfected, separate boxes, in which it is arranged for them to remain with their foals some considerable time. When this is not possible, after each parturition the foaling-shed should be cleansed and disinfected, the manure and straw removed, the walls and surroundings flushed with disinfectants, and fresh straw supplied. If the disease has existed on the place, it will be well to sponge the passage of mares before parturition, with tepid, harmless disinfectant solution, and it is essential that the attendant at the foaling, and anything which may be used in connection with the act, be clean and free from infection. Immediately

after the foal is born, after having washed the cord or navel in an antiseptic solution, the veterinary surgeon, or some one acting under his instructions, should tie the end of the cord with an aseptic ligature. When this is done, a non-irritating disinfectant powder may be dusted on, and the navel sopped daily in a disinfectant solution, afterwards being dusted with the powder.

On the first sign of a foal being affected it should, with the mare, be isolated and attended by a groom, prohibited from coming in contact with other mares and foals, and in-foal mares. The box, manure, etc., should at once be disinfected. The carcasses of the diseased should be disposed of without delay in accordance with these principles.

"Joint disease," though often incurable and difficult to arrest during the season in which it becomes established, must yield to preventive measures on the lines of disinfection, and the exercise of care against fresh introduction of the germs from without.

Actinomycosis.

Prof. McFadyean, of the Royal Veterinary College, in his report to the Royal Agricultural Society of England, mentions that during the year one case of actinomycosis was successfully treated with iodide of potassium. The animal was a steer, whose tongue was so much enlarged before the treatment that three or four inches of the tip could not be withdrawn into the mouth. On the third day of the treatment the animal began to take food with greater freedom, and by the eighth day the whole of the tongue could be accommodated in the mouth. The treatment lasted thirteen days, during which the progress towards complete recovery was rapid and uninterrupted.

QUESTIONS AND ANSWERS.

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

Veterinary.

GENERAL PARALYSIS.

NELSON PARKER, Toledo, Ont.:—"I have a cow that has been sick about three weeks; eats and drinks hearty. She has no power of herself at all. I have windlassed her up, but she makes no effort to stand. This is the second cow and one yearling I have lost the same way. If possible, please answer through your valuable paper, and give name of disease, cause, and remedy."

[Paralysis may be due to a variety of causes: concussion of the brain, compression of the brain and spinal cord, and may occur as the result of parturition or parturient apoplexy. Reflex paralysis may also be due to impaction of the rumen. This is generally of a mild form, and passes away in a few days. Cows heavy with calf sometimes fall will paralysis, due in these cases to compression of the nerves and vessels of the hind parts; when it occurs after calving, will be due to injuries to the nerves while calving. It is almost impossible to say, from your description, from what form of paralysis your cow is suffering. The treatment of these cases depends entirely on the cause; and should you be unable to get good veterinary assistance, have her slaughtered.]

DR. WM. MOLE, M. R. C. V. S., Toronto.]

ACTINOMYCOSIS.

A. H. COWIE, Wentworth Co.:—"I have a steer three years old with a hard growth on each side and beneath the lower jaw; they seem to be somewhat connected with the bone. I would be pleased if you could explain these growths, and name the remedy, if possible?"

[This disease recalls one of the triumphs of modern veterinary surgery. During my pupillage, these growths were described as being of a scrofulous character, and when met with in the tongues of oxen were often described as "wooden tongues" and incurable. Actinomycosis may locate in various parts of the body; its preferred seat being on the edge of the lower jaw. When this disease first attacks the bone, a firm, hard swelling appears; not very painful; varying in size from a hazelnut to that of an egg; of slow growth until active suppuration sets in, when they are converted into abscesses, filled with yellowish cheese-like pus of a granular character. My opinion, though not universally accepted, is that the animals become infected with the food; during the changes in dentition the fungus is lodged upon the plants and gains access to the teeth sockets when they receive the permanent two-year-old teeth. Treatment is simple, but requires perseverance. Give two drachms of iodide of potassium, night and morning, in half a pint of water, until the appetite is affected, then give some stomach bitters to restore the tone of the digestive organs. In about six weeks you may expect improvement. DR. MOLE, M. R. C. V. S.]

A TEMPERATE CALF.

"SUBSCRIBER," Innisfail, Alta.:—"Have a calf, six weeks old. It does not drink well, yet it eats and chews its cud seemingly all right. Have been feeding linseed and chop. Could you tell me what to do with it?"

[There does not appear to be very much wrong with your calf. Perhaps you are feeding a little

too much chop and linseed. Do not offer it drink too frequently; let it have ample time to become real thirsty, and then you may have to be careful that it does not drink too much.

W. A. DUNBAR, V. S., Winnipeg.]

Miscellaneous.

A QUESTION—BREEDING.

SUBSCRIBER:—"I have a thoroughbred Chester White boar that I have been keeping for service. His pigs are coming with a few black spots on them—from all kinds of sows, black and white alike; but none of those sows are thoroughbred. Can you account for the black spots?"

[If we knew to what extent the black spots are uniform on the stock of the boar, we could better satisfy ourselves as to the cause. If there are only a few litters born bearing the spots, and these from mongrel sows, we would say that the spots came from the sows, and that the boar is not very prepotent. But if the spots occur generally on many litters, the cause would seem to be the action of reversion or atavism, which is the appearance in offspring of peculiarities of ancestors, more or less remote. It is not necessary that the parents or grandparents have shown these characteristics, but they were borne by some very prepotent ancestor. If this is the cause, the boar must have come from black ancestry or those bearing black spots.]

LIVE STOCK MARKETS.

Canadian Live Stock Exporters.

At the office of Mr. Robert Bickerdike, Montreal, recently, the "Canadian Live Stock Association" was organized with the following officers:—Messrs. R. Ironsides, Manitou, Man. President; T. O. Robson, St. Mary's, First Vice-President; John S. Galt, Second Vice-President; A. J. Thompson, Toronto, Treasurer; H. Gilchrist, Montreal, Secretary; Directors, John Dunn, Toronto; E. Snell, Galt; Thomas Crawford, Toronto; Joseph Featherstone, Streetsville; R. Bickerdike, Montreal; James Eakins, Toronto; C. Coughlin, Montreal; S. J. Hall, Bowmanville; M. Green, Montreal; A. McIntosh, Sherbrooke. A committee, consisting of Messrs. John Sheridan, Toronto; W. W. Craig, Montreal; R. Ironsides, J. Gould, E. Snell, John Dunn and C. Coughlin, was appointed to interview the railways regarding the excessive freight rates, and the liability of the railways in case of damage to live stock while in transit.

A Cattle Market in Winnipeg.

The export trade in cattle from Manitoba and the West has attained, within the last year or so, considerable dimensions. And now that beef has taken an upward tendency, which has every prospect of being sustained for a period of years, more attention will be given this important industry.

Up to the present time there has been little or no encouragement for small feeders to fit anything for export, unless a sufficient number of cattle were being fitted in their neighborhood to induce a buyer to come in after them. Stock sent to the Winnipeg market have generally to be sacrificed to the first bidder, as the local dealers always seem to have a thorough appreciation of each other's wants, and respect them accordingly.

The Winnipeg Board of Trade has lately taken the matter up, and is discussing the feasibility of establishing a cattle market at the C. P. R. stock yards, with the hope of inducing greater competition among buyers.

We understand it is proposed to form a Stock Yard Co., which would receive consignments of car lots, or less, and sell them on commission; mixed lots could then be sent in to Winnipeg; sorted over; those fit, sold for export, and the remainder sold to local dealers. This would save the expense of buyers travelling the country, picking up a few here and there. These expenses, of course, all come out of the price paid the producer, and if a reliable company could be formed to handle consignments on a fair commission, it looks as if it would considerably benefit the producer.

We should be pleased to hear from some of the feeders on this matter.

Toronto.

The receipts of live stock at th's market were so heavy that dealers either had to make concessions or carry over. A few loads at forced sales were sent on by Mr. Aiken, for export.

To the end of May, about 400 carloads have been despatched from this market; in all about 7,500 head of cattle. Mr. R. Bickerdike, of Montreal, reports live stock shipments for the week ending May 29: Cattle, 4,008; sheep, 1,029; principally to Liverpool. In consequence of bad cable reports, the export trade is very dull, and there was quite a drop in prices.

Receipts of stock for the past week were as follows: Cattle, 2,676; sheep and lambs, 483; hogs, 2,935. During the hot spell there was a heavy demand for stock, and a few changed hands at merely nominal prices. Milch cows and springers were down to from \$25 to \$29. Calves almost unsalable.

The receipts of grain on the market were not large. Wheat was higher, selling at \$1.00 to \$1.05 per bushel. Oats—500 bushels sold at 45c. to 46c. Hay receipts small; \$10 to \$11.50 per load; one choice lot fetched \$11.75. Clover, \$7.50 to \$9.00. Straw, bundled, \$6.50 to \$8.00.

Prices range as tabulated:—

Milkers and springers	.....	\$29.00 to \$30.00
Butchers' choice	..... per cwt.	3 75 " 4 25
Butchers' good	.....	3 25 " 3 50
Cattle, export	.....	4 75 per head.
Sheep	.....	4c. per lb. to \$1.00 per head.
Calves	.....	\$3.50 to \$5.00
Hogs	.....	4 50 " 4 60
Rough scrub hogs	.....	2 75
Eggs	..... per doz.	10c. " 11c.
Butter	.....	per lb., 11c. " 16c.
Poultry in good demand	.....
Oats	..... per bushel	43c. " 45c.
Wheat	.....	\$1.00 " \$1.04
Hay	.....	10 00 " 11 50
Clover	.....	7 50 " 9 00
Straw	.....	6 50 " 8 00
Potatoes	.....	45c. " 50c.

Friday, June 7th, 1895.

East Buffalo Stock Letter.

Good cattle are from 15c. to 25c. lower; and common, or anything that shows grass, from 50c. to 75c. per hundred lower.

Milk cows and springers also selling lower. There were about 40 cars on sale last Monday. The good kinds fell off from \$3.00 to \$5.00 per head, and common to fair from \$5.00 to \$7.00. Good springers, about one month off, were the best sellers, but strictly common ones were hard to sell at all.

The dry weather prevailing all over the country has forced a good many cattle on the market, which would not come

otherwise, and unless we have good rains soon, the marketing is likely to continue and prices go even still lower. There is no doubt whatever but this will strengthen values later in the season. There is also no doubt of a scarcity of dry-fed cattle. We do not believe they will show any further break to speak of.

Prime to fancy steers, \$5.50 to \$5.80; good to choice, \$5.10 to \$5.40; good ripe, 1,100 to 1,250-lb. steers, \$4.60 to \$4.80; good ripe, 950 to 1,050-lb. steers, \$4.30 to \$4.60; feeders, fair flesh, good quality, \$3.35 to \$3.65. Oxen, fair to good, \$3.00 to \$3.50. Good to choice heifers, \$3.60 to \$4.00; good to choice cows and heifers, \$3.50 to \$3.75. Good bulls, \$3.00 to \$3.25. Good milkers and springers, \$28.00 to \$32.00.

Sheep and Lambs.—The market generally is in about the same state that it was last week, excepting, possibly, sheep, which are selling a little better and a little stronger. There is quite a demand for nice, handy, butcher weights, and also for export grades, and the few that are coming are rapidly picked up. Lambs, on the other hand, are selling slowly, and the market is very dull; the best spring lambs, 60 lbs. and upwards, selling from \$5.00 to \$5.50, with a few fancy selected occasionally a shade more. We are not likely to have any improvement in this commodity until offerings of Southern lambs get lighter in the markets east of here. There are now slight signs of improvement, but the outlook is uncertain and wholly dependent upon the receipts. We are getting a good deal of grassy stuff now which is hard to sell. Buyers simply will not look at it when anything else can be had. Prime spring lambs, 50 lbs. and up, \$5.00 to \$5.50; prime lambs, 80 to 90 lbs., \$4.50 to \$4.75; choice to prime, \$4.00 to \$4.35; fancy wethers for export, \$1.25 to \$1.50; choice wethers, 90 to 105 lbs., \$4.00 to \$4.35.

Hogs.—The market generally shows not much change over last week. Prices are about the same on everything, excepting light stuff, which is selling a little lower. The offerings are composed a good deal of green stuff, and the proportion is mostly to light weights. The quality is not as good as during the early part of May, and real prime heavy hogs scarce; the best grades selling \$4.75 to \$4.80; good mediums, \$4.65 to \$4.70; good Yorkers, \$1.50 to \$1.60; pigs, \$1.25 to \$1.35.

ERICK BROTHERS.

June 7th.

Chatty Stock Letter from Chicago.

(BY OUR SPECIAL CORRESPONDENT.)

Extreme top prices now, compared with two weeks and one and two years ago:—

	Present Two weeks		1894.	1893.
	prices.	ago.		
CATTLE.				
1500 lbs. up	\$ 6 00	\$ 6 05	\$4 90	\$ 6 00
1350 @ 1500	6 00	6 05	4 90	6 00
1200 @ 1350	5 85	5 85	4 75	5 45
1050 @ 1200	5 30	5 40	4 70	5 35
900 @ 1050	5 10	5 25	4 45	5 00
Stillers	5 30	5 50	4 50	5 30
Feeders	4 25	4 65	3 95	4 30
Fat cows	4 60	4 75	3 85	4 25
Canners	4 10	4 30	2 50	2 80
Bulls	6 00	5 25	4 50	6 00
Texas steers	4 95	5 10	4 40	4 75
Texas C. & B.	3 75	3 75	2 75	2 90
HOGS.				
Mixed	4 85	4 70	4 80	7 35
Heavy	4 90	4 80	3 90	7 40
Light	4 65	4 65	4 80	7 30
Pigs	4 50	4 45	4 70	7 25
SHEEP.				
Natives	4 60	5 35	4 60	5 60
Western	4 40	4 75	4 50	5 40
Texas	3 75	4 55	3 65	5 15
Lambs	6 00	6 30	5 50	7 25
July Corn	52 1/2	54 1/2	41 1/2	39 1/2
Wheat	81 1/2	77 1/2	60 1/2	67 1/2
" Pork	12 55	12 7 1/2	12 00	21 00
" Lard	6 6 1/2	6 80	6 7 1/2	10 1 1/2

Cattle prices lag a little. Hogs are firm. Sheep are lower. Wheat is decidedly higher, while other grains and provisions are lower than a while ago.

Combined monthly receipts at Chicago, Kansas City, Omaha, and St. Louis, the first five months of 1895, with comparative totals:

	CATTLE.	HOGS.	SHEEP.
January, 1895	473,006	1,432,024	384,491
February, 1895	351,494	1,235,676	345,209
March, 1895	369,741	1,090,287	347,496
April, 1895	342,152	839,482	468,624
May, 1895	391,516	1,075,912	456,625
Totals	1,929,909	5,703,381	2,002,445
Same period, 1894	2,302,443	5,450,883	1,746,196
Same period, 1893	2,361,286	4,063,182	1,701,042
Same period, 1892	2,169,724	5,730,202	1,248,167
Same period, 1891	1,869,216	5,898,959	1,367,838

Wheat and oats-fed cattle have lately been coming from Idaho, Washington, and Oregon, in considerable numbers. Texas cattlemen are still sending forward considerable numbers of cottonseed-meal-fed cattle.

Distillery and sugar-house feeders are furnishing a good many cattle.

The cattle-feeding business is spreading rapidly to new territory, and is becoming harder to figure on.

Some public-spirited citizens of Georgia are sending pure-bred bulls into the northern part of the State from sections farther north, for the sake of breeding up the grade of cattle. Farmers who cannot pay are not charged any service fees.

The 674,864 hogs received here last month averaged 227 lbs., against 226 lbs. for April, and 227 lb., exactly the same, for May, 1894. At the rate farmers are rushing their pigs to market, the average for June will fall about 20 lbs. short of last month.

The following statement shows the tendency of supplies of hogs: Combined receipts of hogs at Chicago, Kansas City, Omaha, and St. Louis, last January, compared with January, 1894, increased 176,000, and in February there was an increase of 288,000, but in March receipts decreased 17,000; April receipts decreased 161,000, and for May there was a decrease at the four markets of 40,000, compared with May, 1894.

Pregnant sows sell more or less regularly to scalpers at about \$2.50, with 40 lbs. off, and a good many of them sell to go to the country. The Government inspectors condemn them if slaughtered for food.

On one day recently, the following were the three highest cattle sales:

17 Shorthorns	.....	1,247 lbs.	.....	\$5 85
38 Angus	.....	1,509 lbs.	.....	6 00
39 Herefords	.....	1,434 lbs.	.....	6 00

The Lance Creek Cattle Co. sold 124 fed Nebraska cattle, averaging 1,357 lbs. at \$3.62.

A. B. Robertson & Son, of Colorado, Texas, marketed 1,052 head of 75-lb. sheep at \$2.50.

William Potts, son of the noted Jacksonville Shorthorn breeder, is now buying fat cattle here for Armour. "Billy" promises to do as well in the cattle market as he did in the show ring.

The demand for meat has lately been curtailed somewhat by the hot weather; but the vigorous activity in mills, factories and shops that were idle for a year or so all tends to make a better consumptive demand.

During the month of May 12,830 horses arrived, the largest supply lately, in excess of the demand, and prevailing prices are \$20.00 to \$25.00 per head lower than the high time within the past two weeks, yet prices are about that much higher than a year ago. Cobs, drivers, carriage teams and choice saddlers are not any too plenty, and realize good profitable prices.



HUNTED DOWN.

BY CHARLES DICKENS.

"No, I am staying here. My uncle has placed me with a family here, for my health."

"And your shadow?" said I, smiling.

"My shadow," she answered, smiling too, "is—like myself—not very robust, I fear; for I lose my shadow sometimes, as my shadow loses me at other times. We both seem liable to confinement to the house. I have not seen my shadow for days and days; but it does oddly happen, occasionally, that wherever I go, for many days together, this gentleman goes. We have come together in the most unfrequented nooks on this shore."

"Is this he?" said I, pointing before us.

The wheels had swept down to the water's edge, and described a great loop on the sand in turning. Bringing the loop toward us, and spinning it out as it came, was a hand-carriage drawn by a man.

"Yes," said Miss Niner, "this really is my shadow, uncle."

As the carriage approached us and we approached the carriage, I saw within it an old man, whose head was sunk on his breast, and who was enveloped in a variety of wrappers. He was drawn by a very quiet but very keen looking man, with iron-gray hair, who was slightly lame. They had passed us, when the carriage stopped, and the old gentleman within, putting out his arms, called to me by my name. I went back, and was absent from Mr. Slinkton and his niece for about five minutes.

When I rejoined them, Mr. Slinkton was the first to speak. Indeed, he said to me in a raised voice before I came up with him:

"It is well you have not been longer, or my niece might have died of curiosity to know who her shadow is, Mr. Sampson."

"An old East India Director," said I. "An intimate friend of our friend's, at whose house I first had the pleasure of meeting you. A certain Major Banks. You have heard of him?"

"Never."

"Very rich, Miss Niner; but very old and very crippled. An amiable man, sensible—much interested in you. He has just been expatiating on the affection that he has observed to exist between you and your uncle."

Mr. Slinkton was holding his hat again, and he passed his hand up the straight walk, as if he himself went up it serenely, after me.

"Mr. Sampson," he said, tenderly pressing his niece's arm in his, "our affection was always a strong one, for we have been but few near ties. We have still fewer now. We have associations to bring us together that are not of this world, Margaret."

"Dear uncle!" murmured the young lady, and turned her face aside to hide her tears.

"My niece and I have such remembrances and regrets in common, Mr. Sampson," he feelingly pursued, "that it would be strange indeed if the relations between us were cold or indifferent. If I remember a conversation we once had together, you will understand the reference I make. Cheer up, dear Margaret. Don't droop, don't droop. My Margaret! I cannot bear to see you droop!"

The poor young lady was very much affected, but controlled herself. Her feelings, she felt, were very acute. In a word, she found herself under such great need of a restorative, that she presently went away, to take a bath of sea-water, leaving the young lady and me sitting by a point of rock, and probably presuming—but that you will say was a pardonable indulgence in a luxury—that she would praise him with all her heart.

She did, poor thing! With all her confiding heart, she praised him to me for his care of her dear sister, and for his untiring devotion in her last illness. The sister had wasted away very slowly, and wild and terrible fantasies had come over her toward the end, but he had never been impatient with her, or at a loss; had always been gentle, watchful, and self-possessed. The sister had known him, as she had known him, to be the best of men, the kindest of men, and yet a man of such admirable strength of character as to be a very tower for the support of their weak natures while their poor lives endured.

"I shall leave him, Mr. Sampson, very soon," said the young lady; "I know my life is drawing to an end; and when I am gone, I hope he will marry and be happy. I am sure he has lived single so long only for my sake, and for my poor, poor sister's."

The little hand-carriage had made another great loop on the damp sand, and was coming back again, gradually spinning out a slim figure of eight, half a mile long.

"Young lady," said I, looking round, laying my hand upon her arm, and speaking in a low voice, "time presses." You hear the gentle murmur of that sea?

"Yes!"

"And you know what a voice is in it when the storm comes?"

"Yes!"

"You see how quiet and peaceful it lies before us, and you know what an awful sight of power without pity it might be, this very night?"

"Yes!"

"But if you had never heard or seen it, or heard of it in its cruelty, could you believe that it beats every inanimate thing in its way to pieces, without mercy, and destroys life without remorse?"

"You terrify me, sir, by these questions!"

"To save you, young lady, to save you! For God's sake collect your strength and collect your firmness! If you were here alone, and hemmed in by the rising tide on the flow to fifty feet above your head, you could not be in greater danger than the danger you are now to be saved from."

The figure on the sand was spun out, and straggled off into a crooked little jerk that ended at the cliff very near us.

"As I am, before Heaven and the Judge of all mankind, your friend, and your dear dead sister's friend, I solemnly entreat you, Miss Niner, without one moment's loss of time, to come to this gentleman with me!"

If the little carriage had been less new to us, I doubt if I could have got her away; but it was so near that we were there before she had recovered the hurry of being urged from the rock. I did not remain there with her two minutes. Certainly within five, I had the inexpressible satisfaction of seeing her—half supported and half carried up some rude steps, notched in the cliff, by the figure of an active man. With that figure beside her, I knew she was safe anywhere.

I sat alone on the rock, awaiting Mr. Slinkton's return. The twilight was deepening and the shadows were heavy when he came around the point, with his hat hanging at his buttonhole, smoothing his wet hair with one of his hands, and picking out the old path with the other and a pocket-comb.

"My niece not here, Mr. Sampson?" he said, looking about.

"Miss Niner seemed to feel a chill in the air after the sun was down, and has gone home."

He looked surprised, as though she were not accustomed to do anything without him; even to originate so slight a proceeding.

"I persuaded Miss Niner," I explained.

"Ah!" said he. "She is easily persuaded—for her good. Thank you, Mr. Sampson; she is better within doors. The

bathing-place was further than I thought, to say the truth."

"Miss Niner is very delicate," I observed.

He shook his head, and drew a deep sigh. "Very, very, very. You may recollect my saying so. The time that has since intervened has not strengthened her. The gloomy shadow that fell upon her sister so early in life seems, in my anxious eyes, to gather over her, ever darker, ever darker. Dear Margaret, dear Margaret! But we must hope."

The hand-carriage was spinning away before us at a most indecorous pace for an invalid vehicle, and was making most irregular curves upon the sand. Mr. Slinkton, noticing it after he had put his handkerchief to his eyes, said:

"If I may judge from appearances, your friend will be upset, Mr. Sampson."

"It looks probable, certainly," says I.

"The servant must be drunk."

"The servants of the old gentleman will get drunk sometimes," said I.

"The major draws very light, Mr. Sampson."

"The major does draw light," said I.

By this time the carriage, much to my relief, was lost in the darkness. We waited for a little, side by side over the sand, in silence. After a short while he spoke in a voice still affected by the emotion that his niece's state of health had awakened in him:

"Do you stay here long, Mr. Sampson?"

"Why, no. I am going away to-night."

"So soon! But business always holds you in request. Men like Mr. Sampson are too important to others to be spared to their own need of relaxation and enjoyment."

"I don't know about that," said I. "However, I am going back."

"To London?"

"To London."

"I shall be there too, soon after you."

"I know that as well as he did. But I did not tell him so. Any more than I told him what defensive weapon my right hand rested on in my pocket as I walked by his side. Any more than I told him why I did not walk on the sea-side of him with the night closing in."

We left the beach, and our ways diverged. We exchanged good-night wishes, and parted as usual, he said, returning:

"Mr. Sampson, may I ask? Poor Meltham, whom we spoke of—dead yet?"

"Not when I last heard of him; but too broken a man to live long, and hopelessly lost to his old calling."

"Dear, dear, dear!" said he, with great feeling. "Sad, sad, sad! The world is a grave!" And so went his way.

It was not his suit if the world were not a grave; but I did not call that observation after him, any more than I had mentioned those other things just now enumerated. He went his way, and I went mine with all expedition. This happened, as I have said, either at the end of September or beginning of October. The next time I saw him, and the last time, was late in November.

I had a very particular engagement to breakfast in the Temple. It was a bitter north-easterly morning, and the sleet and slush lay inches deep in the streets. I could get no conveyance, and was soon wet to the knees; but I should have been true to that appointment though I had to wade to it up to my neck in the same impediments.

The appointment took me to some chambers in the Temple. They were at the top of a lonely corner house overlooking the river. The name, Mr. ALFRED BECKWITH, was painted on the outer door. On the door opposite, on the same landing, the name, Mr. JULIUS SLINKTON. The doors of both sets of chambers were open, so that anything said aloud in one set could be heard in the other.

I had never been in those chambers before. They were dismal, close, unwholesome, and oppressive; the furniture, originally good, and not yet old, was faded and dirty,—the rooms were in great disorder; there was a strong prevailing smell of opium, brandy, and tobacco; the grate and fire-irons were splashed with oil, and the unsightly blotches of rust; and on a sofa by the fire, in the room where breakfast had been prepared, lay the host, Mr. Beckwith, a man with all the appearances of the worst kind of drunkard, very far advanced upon his shameful way to death.

"Slinkton is not come yet," said this creature, staggering up when I went in; "I'll call in." Julius Caesar! Julius Caesar! I heard him say as he heaved himself up, and beat the poker and tongs together in a mad way, as if that were his usual manner of summoning his associate.

The voice of Mr. Slinkton was heard through the clatter from the opposite side of the staircase, and he came in. He had not expected the pleasure of meeting me. I have seen several men stand by a standard, but I never saw a man so glib as he was when his eyes rested on mine.

"Julius Caesar!" cried Beckwith, staggering between, "Mist' Sampson! Mist' Sampson, Julius Caesar! Julius, Mist' Sampson, is the friend of my soul! Julius keeps me plied with liquor, morning, noon, and night. Julius is a real benefactor. Julius throw the tea and coffee out of the window when I used to have any Julius brought to stand, but I never saw that that was nothing to drink on the table but brandy, and nothing to eat but salted herrings, and a hot, sickly, highly-peppered stew."

"At all events, Mr. Sampson," said Slinkton, offering me the smooth gravel path for the last time, "I thank you for interfering between me and this unfortunate man's violence. However you came here, Mr. Sampson, or with whatever motive you came here, at least I thank you for that."

"Boil the brandy," muttered Beckwith.

Without gratifying his desire to know how I came there, I said, quietly, "How is your niece, Mr. Slinkton?"

He looked hard at me, and I looked hard at him.

"I am sorry to say, Mr. Sampson, that my niece has proved treacherous and ungrateful to her best friend. She left me without a word of notice or explanation. She was misled, no doubt, by some designing rascal. Perhaps you may have heard of it?"

"I did hear that she was misled by a designing rascal. In fact, I have proof of it."

"Are you sure of that?" said he.

"Quite."

"Boil the brandy," muttered Beckwith. "Company to breakfast, Julius Caesar. Do your usual office—provide the usual breakfast, dinner, tea, and supper. Boil the brandy!"

The eyes of Slinkton looked from him to me, and he said, after a moment's consideration, "Mr. Sampson, you are a man of the world, and so am I. I will be plain with you."

"O no, you won't," said I, shaking my head.

"I tell you, sir, I will be plain with you."

"And I tell you you will not," said I. "I know all about you. You plain with any one? Nonsense, nonsense!"

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"Boil the brandy," muttered Beckwith. "Company to breakfast, Julius Caesar. Do your usual office—provide the usual breakfast, dinner, tea, and supper. Boil the brandy!"

While he was saying this, Beckwith had filled a half-pint glass with brandy. At this moment he threw the brandy at his face and threw the glass after it. Slinkton put his hands up, half blinded with the spirits and out with the glass across the forehead. At the sound of the breakage a fourth person came into the room, closed the door and stood at it; he was a very quiet but very keen-looking man, with iron-gray hair, and slightly lame.

Slinkton pulled out his handkerchief, assuaged the pain in his smarting eyes, and dabbed the blood on his forehead. He was a long time about it, and I saw that, in the doing of it, a tremendous change came over him, occasioned by the change in Beckwith,—who ceased to pant and tremble, sat upright, and never took his eyes off him. I never in my life saw a face in which abhorrence and determination were so forcibly painted as in Beckwith's then.

"Look at me, you villain," said Beckwith, "and see me as I really am. I took these rooms to make them a trap for you. I came into them as a drunkard, to bait the trap for you. You fell into the trap, and you will never leave it alive. On the morning when you last went to Mr. Sampson's office I had seen him first. Your plot has been known to both of us, all along, and you have been counter-plotted all along. What! Having been coaxed into putting that prize of two thousand pounds in your power, I was to be done to death with brandy, and brandy not proving quick enough, with something quicker! Have I never seen you, when you thought my senses gone, pouring from your little bottle into my glass? Why, you murderer and forger, alone here with you in the dead of night, as I have so often been, have had my hand upon the trigger of a pistol, twenty times, to blow your brains out!"

This sudden starting up of the thing that he had supposed to be his imbecile victim into a determined man, with a settled resolution to hunt him down and be the death of him, mercilessly expressed from head to foot, was, in the first shock, too much for him. Without any figure of speech, he staggered under it. But there is no greater mistake than to suppose that a man who is a calculating criminal, is, in any phase of his guilt, otherwise than true to himself, and perfectly consistent with his whole character. Such a man commits murder, and murder is the natural culmination of his course; such a man has to outface murder, and will do it with hardihood and effrontery. It is a sort of fashion to express surprise that any notorious criminal, having such crime upon his conscience, can so brave it out. Do you think that if he had it on his conscience at all, or had a conscience to have it upon, he would ever have committed the crime?

Perfectly consistent with himself, as I believe all such monsters to be, this Slinkton recovered himself, and showed a defiance that was sufficiently cold and quiet. He was white, he was haggard, he was changed; but only as a sharper who had played for a great stake and had been outwitted and had lost the game.

"Listen to me, you villain," said Beckwith, "and let every word you hear me say be a stab in your wicked heart. When I took these rooms, to throw myself in your way and lead you on to the scheme that I knew my appearance and supposed character and habits would suggest to such a devil, how did I know that? Because you were no stranger to me. I know you well. And I knew you to be the cruel wretch who, for so much as you could get, would murder an innocent girl while she slept in bed, and who was by inches killing another."

Slinkton took out a snuff-box, took a pinch of snuff, and laughed.

"But see here," said Beckwith, never looking away, never raising his voice, never relaxing his face, never unclenching his hand. "See what a dull wolf you have been, after all! The infatuated drunkard who never drank a fifth part of the liquor you plied him with, but poured it away, here, there, everywhere—almost before your eyes; who bought over the fellow you set to watch him and to ply him, by outbidding you in his bribe, before he had been at his work three days—with whom you have observed no caution, yet who was so bent on adding the body of a wild beast that he would have defeated you if you had been ever so prudent—that drunkard whom you have, many a time, left on the floor of this room, and who has even let you go out of it, alive and undecieved, when you have turned him over with your foot—has, almost as often, on the same night, within an hour, within a few minutes, watched you awake, had his hand at your pillow when you were asleep, turned over your papers, taken samples from your bottles and packets of powder, changed their contents, rifled every secret of your life!"

He had had another pinch of snuff in his hand, but had gradually let it drop from between his fingers to the floor; where he now smoothed it out with his foot, looking down at it the while.

"That drunkard," said Beckwith, "who had free access to your rooms at all times that he might drink the strong drinks that you left in his way and be the sooner ended, holding no more terms with you than he would hold with a tiger, has had his master-key for all your locks, his test for all your poisons, his clue to your cipher-writing. He can tell you, as well as you can tell him, how long it took to complete that deed, what doses there were, what intervals, what signs of gradual decay upon mind and body; what disordered fancies were produced, what observable changes, what physical pain. He can tell you, as well as you can tell him, that all this was recorded day by day, as a lesson of experience for further service. He can tell you, better than you can tell him, where that journal is at this moment."

Slinkton stopped the action of his foot and looked at Beckwith.

"No," said the latter, as if answering a question from him. "Not in the drawer of the writing-desk that opens with a spring; it is not there, and it never will be there again."

Without any change whatever in the infernal purpose, which it was quite terrific even to me to contemplate, and from the power of which I had always felt convinced it was impossible for this wretch to escape, Beckwith returned:

"And I am your niece's shadow, too."

With an imprecation, Slinkton put his hand to his head, tore out some hair, and flung it to the ground. It was the end of the smooth walk; he destroyed it in the action, and it will soon be seen that his use for it was past.

Beckwith went on: "Whenever you left here, I left here. Although I understood that you found it necessary to pause in the completion of that purpose, to avert suspicion, still I watched you close, with the poor confiding girl. When I had the diary, and read it word by word—it was only about the night before your last visit to Scarbrough,—you remember the night I slept with a small, flat vial tied to your wrist,—I sent for Mr. Sampson, who was kept out of view. This is Mr. Sampson's trusty servant standing by the door. We three saved your niece among us."

Slinkton looked at us all, took while at us all, and glanced about him in a very curious way,—as one of the meaner reptiles might, looking for a hole to hide in. I noticed at the same time, that a singular change took place in the figure of the man,—as if it collapsed within his clothes, and they consequently became ill-shaped and ill-fitting.

"You shall know," said Beckwith, "for I hope the knowledge will be bitter and terrible to you, why you have been pursued by me, and why, when the whole interest that Mr. Sampson represents would have expended any money in hunting you down,—you have been tracked to death at a single individual's charge. I hear you have had the name of Meltham on your lips sometimes?"

"I saw, in addition to those other changes, a sudden stoppage come upon his breathing."

"When you sent the sweet girl whom you murdered (you know with what artfully made-out surroundings and probabilities you sent her) to Meltham's office, before taking her to the grave, it fell to Meltham's lot to see her and speak with her. It did not fall to his lot to save her, though I know he would freely give his own life to have done it. He admired her;—I would say he loved her deeply if I thought it possible that you could understand the word. When she was sacri-

ficed, he was thoroughly assured of your guilt. Having lost her, he had but one object left in life, and that was to avenge her and destroy you.

I saw the villain's nostrils rise and fall convulsively; but I saw no moving at his mouth.

"That man Meltham," Beckwith steadily pursued, "was as absolutely certain that you could never elude him in this world, if he devoted himself to your destruction with his utmost fidelity and earnestness, and if he divided the sacred duty with no other duty in life, as he was certain that in achieving it he would be a poor instrument in the hands of Providence, and would do well before Heaven in striking you out from among living men. I am that man, and I thank God that I have done my work!"

If Slinkton had been running for his life from swift-footed savages, a dozen miles, he could not have shown more emphatic signs of being oppressed at heart, and laboring for breath, than he showed now, when he looked at the pursuer who had so relentlessly hunted him down.

"You never saw me under my right name before; you see me under my right name now. You shall see me once again in the body when you are tried for your life. You shall see me once again in the spirit, when the cord is around your neck, and the crowd are crying against you!"

When Meltham had spoken these last words, the miscreant suddenly turned away his face, and seemed to strike his mouth with his open hand. At the same instant, the room was filled with a new and powerful odor, and, almost at the same instant, he broke into a crooked run, leap, start,—I have no name for the spasm,—and fell, with a dull weight that shook the heavy old doors and windows in their frames.

That was the fitting end of him.

When we saw that he was dead, we drew away from the room, and Meltham, giving me his hand, said, with a weary air:

"I have no more work on earth, my friend. But I shall see her again elsewhere."

It was in vain that I tried to rally him. He might have saved her, he said; he had not saved her, and he reproached himself; he had lost her, and he was broken-hearted.

"The purpose that sustained me is over, Sampson, and there is nothing now to hold me to life. I am not fit for life; I am weak and spiritless; I have no hope and no object; my day is done."

In truth, I could hardly have believed that the broken man who then spoke to me was the man who had so strongly and so differently impressed me when this purpose was before him. I used such entreaties with him as I could; but he still said, and always said, in a patient, undemonstrative way,—nothing could avail him,—he was broken-hearted.

He died early in the next spring. He was buried by the side of the poor young lady for whom he had cherished those tender and unhappy regrets; and he left all he had to her sister. She lived to be a happy wife and mother; she married my sister's son, who succeeded poor Meltham; she is living now, and her children ride about the garden on my walking-stick when I go to see her.

The Wheat Field.

BY JOHN CONSTABLE.

Although not altogether unappreciated during his lifetime, Constable is a master whose fame has immensely increased since his death. It needed French appreciation to give him his just rank in the British pantheon. Ruskin treats Constable and his teakettle showers and his umbrella-weather with undisguised contempt. But since the decline of Ruskin's importance as an arbiter of criticism he has enjoyed a sort of posthumous elevation to the peerage; his slightest works are sought out like gold; and few works are oftener copied in the Louvre than the two or three works of his which it has recently acquired. A French critic speaks of the "fruitful appearance of Constable" in the Paris Salon of 1815; and, in that country, he is indeed the true progenitor of such eminent landscapists as Troyon, Rousseau, Dupre, and Daubigny, some of whom have made their fortune by appropriating a corner of his mantle.

"The Corn Field," painted in 1826, and exhibited the year following at the British Institution, was a present from the friends and admirers of the painter to the National Collection. Before his pictures were dispersed by auction, at his death, it was suggested that one of the best which he had left unsold should be purchased by subscription and presented to the nation. It was for some time a matter of discussion whether this work or "Salisbury, from the Meadows," should be selected; ultimately the choice fell upon "The Corn Field," as being a picture which, to the eye of the public, would be more acceptable. The picture represents one of the rustic scenes which Constable loved to paint. It is supposed to be a view near Dedham, a village in the County of Essex, the neighborhood of which was a favorite haunt of the artist. "The Corn Field," or rather wheat field, is somewhat of a misnomer, as very little of it is shown in the composition. A pleasant shady lane, such as may be found in almost any rural district in England, shut in by lofty hedges and thickly-leaved trees, is the central object in the picture. The dusty, ill-made roads in this country give us no adequate idea of the beauty of these green lanes in England,—the exquisite loveliness of which needs the pen of an

Irving to describe. The forms of the trees and the wild luxuriance of the hedgerows are given in the picture with rare fidelity to Nature, while the heavy masses of cloud above are truly significant of the English climate, and characteristic of the sky-painting in which the artist especially excelled.

Constable was born in 1776 at East Bergholt, in Suffolk, and died in London, in his home in Charlotte street, on April 1st, 1837.

"The History of a Pair of Old Boots."

(Continued from page 223.)

Abu Suleiman saw no course open to him to escape from his misfortune but to leave that country altogether, and leave his boots in some distant place. So he placed them in a box, and took a journey of three days into a land where he was not known. Being a man of venerable appearance, he was offered the position of judge. He declined, saying that he was unacquainted with the law. The Walee (governor) said: "You cannot be at a loss. When a person states his case, ask him to produce witnesses; if he has none, ask him to take an oath; if he will not swear, his statement is false, and he deserves fifty stripes." So Abu Suleiman was ap-



THE WHEAT FIELD.

pointed Kadee; then he dug a deep hole, buried the box containing his boots, and rested that night in peace.

On the morrow came the rich and noble to the town to offer their salutations to the new Kadee. With many words they praised and complimented him. When they finished, he said: "Have you witnesses to confirm what you have said?" "Our hearts are witnesses, most noble Kadee," they said, laying their hands on their breasts. But he replied: "Do you dare to approach me with statements which you cannot prove? If your words are true, prove it by a solemn oath." They said: "There is no need of an oath, most noble Kadee." Then he commanded his attendants to beat them without mercy. They complained to the Walee, who sent him back to his native country. Abu Suleiman departed, greatly delighted that he had at last got rid of his old boots.

But the box was found, and a great crowd of people marched with it to the Walee, thinking that it contained much treasure. When it was opened they were all angry, and the Walee concluded that it must have been a trick played upon him by Abu Suleiman the Tartar.

(TO BE CONTINUED.)

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,—

As many of us are planning our summer trips,—Where we shall go! What we shall do! and above all, what amount of finery we shall take with us!—I think I shall offer a few suggestions. First of all, a light tweed, or serge skirt and coat, are indispensable, with three or four pretty blouse waists to wear with this costume. A few dressy vests or fronts, in addition to these blouses, will be found extremely useful in varying your costume; they are made of silk, crepon, cambric, muslin, or, in fact, of any odds and ends of material for which we have no better use. Any novice can manage to manufacture them; they are made out of a straight piece of goods, curved at the upper end to fit the neck, to which the collar is attached, and gathered into a band to go round the waist. The material should be allowed wide enough to gather freely, and of sufficient length to fall an inch or so over the belt. Latest fashions show them made in three double box plaits. A couple of simple morning gowns, with two or three pretty frocks for afternoon wear, would then be all that would be re-

quired for an ordinary summer visit. If much gayety is anticipated, evening dresses must of course be added to the above; it is just as well to be on the safe side, and put in one at any rate; very little space would accommodate it. Two or three hats—a sailor for constant wear, a large one for dressy occasions, and a small one for church—will be found useful; very large hats are out of place where they obstruct the view of the people who are so unfortunate as to be sitting behind them! Many people have a habit of looking directly at the clergyman addressing them, and find it an intolerable nuisance to have him completely obscured by a distracting variety of most luxuriant flowers, feathers and ribbons!

We should aim to make our visits as pleasant as possible to every one in the house where we are staying. A little consideration of the feelings of others will help us materially to achieve this. How is it that the departure of some guests is regarded as a relief, instead of with regret? Want of thought is probably all that prevents a visit from being as pleasant as it should be to host and hostess. No one set of rules can be laid down for the guidance of either hostess or guest; tact alone can prevent people from falling into the many little errors of omission and commission which helps to mar the pleasure of our constant intercourse with people whom it would be unreasonable for us to expect to be in sympathy with all our varying moods.

Never fail to be punctual at all meals, and in keeping your appointment made by your hostess. Give the servants as little trouble as possible; according to the number kept, use your judgment as whether you should offer to assist in any of the household duties; and never think of assisting in such labor without first asking permission of your hostess. Always be provided with reading matter, a piece of fancy work, or something to occupy your mind and time, that your hostess may not feel she is neglecting you when occasionally occupied with household duties. Never interfere in the control of the children of the house, nor offer suggestions as to the best way to manage them. Every one thinks their own particular way of bringing up children the best; and will not be persuaded by anything you may say to the contrary. Never discuss anything before children that you would mind being proclaimed from the rooftops; they are certain to come out with what you least wish or expect them to say, at the most *mal a propos* moment. Don't stay longer than the time originally mentioned for your visit; your room may be needed for another guest, or other reasons may make it inconvenient for your visit to be prolonged. Canadians are so truly hospitable that lengthy visits are not regarded by them in the same light as they are by English people; the latter are as particular in letting you know when they expect you to go as they are in mentioning the time at which they would like you to come, and I am not sure if their plan is not the best, when considered from the different aspects with which a question of that sort may be regarded. M. M.

THE QUIET HOUR.

"Redeeming the Time."

O trifle not with life: 'tis but an hour: Redeem its every moment, day by day. Press forward to the front! Live for the future life: watch, watch and pray. Remember, child of Time, Thou art immortal! fling not Heaven away.

H. Bonar.

The Business of the King.

"The King's business required haste."—I. Sam., XXI: 8.

And yet there is no other business about which average Christians take it so easy. They "must" go their usual round, they "must" write their letters, they "must" pay off their visits and other social claims, they "must" do all that is expected of them; and then, after this and that and the other thing is cleared off, they will do what they can of the King's business. They do not say "must" about that, unless it is some part of His business which is undertaken at second-hand, and with more sense of responsibility to one's clergyman than to one's King.

The King's business requires haste. It is always pressing, may never be put off. Much of it has to do with souls which may be in eternity to-morrow; and with opportunities which are gone forever if not used then and there: there is no "convenient season" for it but to-day. Often it is not really done at all, because it is not done in a spirit of holy haste. We meet an unconverted friend again and again, and beat about the bush, and think to gain quiet influence and make way gradually, and call it judicious not to be in a hurry, when the real reason is that we are wanting in holy eagerness and courage to do the King's true business with that soul, and in nine such cases out of ten nothing ever comes of it; but "As thy servant was busy here and there, he was gone." Have we not found it so?

Delay in the Lord's errands is next to disobedience, and generally springs out of it, or issues in it. Let us see to it that we can say, "I made haste, and delayed not to keep Thy commandments."

We never know what regret and punishment delay in the King's business may bring upon ourselves. Amasa "tarried longer than the set time which he (the king) had appointed him," and the result was death to himself. Contrast the result in Abigail's case, where, except she had hastened, her household would have perished. We find four rules for doing the King's business, in His Word. We are to do it: First, "Heartily"; second, "Diligently"; third, "Faithfully"; fourth, "Speedily."—Col. III: 23; Ezra VII: 23; 2 Chron. XXXIV: 12; Ezra VII: 21. Let us ask Him to give us the grace of energy to apply them this day to whatever He indicates as our part of His business, remembering that He said, "I must be about My Father's business." Especially in that past of it which is between Himself and ourselves alone, let us never delay. Oh, the incalculable blessings that we have already lost by putting off our own dealings with our King!

What shall be our word for Jesus? Master give it day by day: Ever as the need arises, teach Thy children what to say. Give us holy love and patience; grant us deep humility. That of self we may be emptied, and our hearts be full of Thee: Give us zeal and faith and fervour, make us winning, make us wise. Single-hearted, strong and fearless;—Thou hast called us, we will rise! Let the might of Thy good Spirit go with every loving word; And by hearts prepared and open, be our message always heard!

F. R. H.

"Nothing but Leaves."

"And when He came to it, He found nothing but leaves."—St. Mark XI: 13.

Nothing but leaves! The Spirit grieves Over a wasted life; Sins committed whilst conscience slept, Promises made but never kept, Hatred, battle, and strife—Nothing but leaves!

Nothing but leaves! No garnered sheaves Of life's fair, ripened grain; Words, idle words for earnest deeds; We sow our seeds—low! tares and weeds We reap with toil and pain—Nothing but leaves!

Nothing but leaves! Memory weaves No veil to screen the past; As we trace our weary way, Counting each lost and mis-spent day, Sadly we find at last—Nothing but leaves!

And shall we meet the Master so, Hearing our withered leaves? The Saviour looks for perfect fruit— We stand before Him humble, mute, Waiting the word He breathes—"Nothing but leaves."

Things Crowded Out.

Some things must be "crowded out" of our lives. What we think of least consequence is put off to a leisure time: "After harvest I will attend to that," we say; or "when the house-cleaning is done will be soon enough to do that piece of work," it can wait until the other can't. What is the work which can be put off so easily? What things do we openly confess to be of least consequence? Perhaps it is some person to be visited; when we have time to spare he may be well, or perhaps have passed away beyond our reach. The house is cleaned an

hour or two sooner, but we may have to face the terrible words, "In as much as ye did it not . . . ye did it not to Me." Or the sewing we have undertaken to do for His poor, is pushed aside; "there is no hurry about that." We go to Sunday-school, if we are not too tired, with a lesson badly prepared. Why? Because there was such a lot to do, we just had time to glance at it. Is the work of training young, eager souls of less consequence than the trimming of a hat, which "must be done for Sunday," and which took up all Saturday evening? Or the children are allowed to neglect their Sunday lessons. "Poor little things, they have to study so hard all the week." Do we really think the training of their minds more important than the training of their souls? Pause a moment, in the rush of this nineteenth century life, and find out. If we do value earthly things above heavenly, there is certainly something wrong with our Christianity.

Home or school work must not be neglected, of course; it can and should be done thoroughly, "as unto the Lord and not unto men"; but religious acts, prayer and meditation, church and Sunday-school, must not be crowded into out-of-the-way corners of time. They, too, are of real, vital importance. Our Lord tells of a man who spent his time in filling up his barns, thinking only of the heaping up of riches. He succeeded, but oh, what a terrible failure he made of life! "Thou fool, this night thy soul shall be required of thee." What use had he made of the precious time committed to him? He had worked hard—for Time—but neglected Eternity.

Never say, "I have no time for reading the Bible." A sailor might just as well say he had no time to look at the compass, or to study his chart. Never be too busy to pray, to hold communion with your Master, Christ. It would be far wiser to be too busy to eat, or sleep, or breath. You know the body cannot do its work without food, or rest, or air; do not let the soul live a cramped, starved life either, or you will surely bitterly repent your folly.

Be not too busy with thy work and care To look to God, to clasp thy hand in His. Miss thou all else, but fail thou not in this, Thou needest not all alone thy burden bear; Listen and wait, obey and learn His will; His love and service all thy life shall fill.

THE CHILDREN'S CORNER.

This competition is closed, but so many letters and stories have arrived that some will have to be kept over for the next issue. One, called "An Unexpected Messenger," will be published, if the writer will send her age; she must have forgotten that rule. The first story received this month is called

Deer-hunting in Lake Dauphin.

In the year 1883 J. one evening was out hunting rabbits when he came across some deer tracks so he went home that evening and told H. and G. and the next morning at daybreak they started after the deer with the idea of going to have two or three deers apiece—with their rifles loaded up to the muzzles. When they got to where the deer tracts were the scrub was so high that they could not see any distance. So J. and H. thought they would climb a tree to see where the deer was. But they left their rifles at the foot of the tree, when they got to the top they saw the deer coming straight towards them. J. told G. to run and shoot the deer. G. had to run about 20 yards before he was out of the scrub to shoot them. He fired one shot but the ball did not go straight then J. and H. got down the tree and the 3 men started after the deer running till at last H. played out and went home, the other 2 kept running on till dark but could not catch the deer so they had to stay in the woods all night the next morning they being tired started for home and I know that J. and H. have not gone deer-hunting since, but G. went hunting and got a deer that he could catch without shooting.

WILLIAM WHITEMAN [age 13].

Gartmore, Man.

This is evidently written by a boy,—the only boy who has attempted to find a place in our Corner. Next comes a story written by Pearl Walker, aged 12 years:

True Story of a Pet Crow.

One 24th of May my three sisters, two brother and I went to the woods for a picnic. My baby brother fell asleep and we covered him up under a tree while we picked flowers. Then we came back and sat down to eat our lunch. My oldest brother happened to look up in the tree under which we were sitting, and noticed something that looked like a bundle of sticks. He climbed the tree and found that it was a nest with three crows in. We brought them home, two of them died, but the other, which we called Corny, lived. We had a hard time teaching him to eat but he soon learnt to feed himself. He was soon quite a pet, although pretty troublesome, as he would take the baby's toys out of the house and hide them; if we went barefooted he would run after us and pick our heels. One Sunday we were all sitting in the house reading, when Corny came in with a little stick in his mouth, jumped upon Papa's foot and tried to push it up between his shoe and trousers, then tried to hide it under the edge of the carpet. He would try to bark like a dog, mew like a cat and crow like a rooster. One day he picked up baby's toy and hopped off with it and my brother ran after him, but when they came to the end of the verandah my brother, thinking Corny would still hop on, jumped down and came on the poor bird's back as Corny had stopped suddenly. This injured him so that he died the next day. We missed him very much and put him in a box and

buried him behind the hen-house. We put a shingle at the head of the grave with this inscription:—

Here lies
Corny,
Son of Mr. and Mrs. Jim Crow,
Who died August—1888.
"O! Corny, you are gone,
And will never more come back;
You left this sad, sad world
From the effects of a broken back."

Here we left his remains, but an old hen, who had not been at the funeral, seeing the grave, and allowing her inquisitiveness to get the better of her good manners, scratched it up and scattered the bones in all directions. Perhaps she was trying to pay off some old grudge, as Corny was very cross to the hens.
PEARL WALKER.
Canfield, Ont.

THE SOCIAL CORNER.

Under this heading, communications relating to the home or any subject of interest will be published and questions answered.
MINNIE MAY.

"NELLIE."—To wash summer silks, first remove all grease, or other dark spots, with chloroform, then shake thoroughly in a solution of ammonia, a little soap and a pail of water, and rinse in lukewarm water. Do not wring, simply press the water out and partly dry the goods; then press dry between two cloths, using a very hot iron. Remove iron-rust with salts of lemon, and mildew with diluted chloride of lime. For the latter, buttermilk is often recommended, but is not quite satisfactory.

"ORPHAN ANNIE."—A daughter wears crape for a parent for one year, then plain black for the second year. Grays and lavender are no longer in vogue for second mourning.

"ESTELLE."—To make eau-de-cologne, use oils of lavender, bergamot, and jessamine, of each half an ounce; oil of rosemary, sixteen drops; oil of cinnamon, six drops; oil of cloves, six drops; oil of neroli, eight drops; musk, five grains, and alcohol, one quart.

A favorite style for the light duck suits is to make with a four-yard bell skirt, Eton jacket reaching to waist line, rolling sailor collar, and very large leg-o'-mutton sleeves. Put four large pearl buttons on each side of the jacket.

"GERALDINE G."—Equal parts of alcohol, ammonia and water will remove spots from a black dress, if applied with a small brush when the dust has been removed. A solution of soap-bark and water will answer the same purpose. To cleanse the ribbon, saturate in benzine or gasoline and press carefully.

"YOUNG HOUSEWIFE."—Scarfs draped about pictures are now out of date, and advisedly so. If the picture be worth a place in one's parlor, it should be able to stand on its own merits. However, if it be large, and standing on an easel, a pretty scarf is quite desirable, if artistically draped.

Wall-paper is much prettier than paint, and has become so cheap that it is but little more expensive.

"ETIQUETTE."—The conventional hours for making calls or receiving callers are generally from four to six.

When congratulations or condolence are in order, a card answers the purpose of a call, except among particular friends, and it should be left as soon as possible (in the case of condolence) after hearing of the affliction.

Puzzles.

1—RIDDLE.

Riddle me, riddle me, see,
You often can see me;
But touch me light,
And I'll go out of sight,
And you'll wonder where I can be.
Riddle me, riddle me, ri,
High over your head I'll fly;
I'm a fairy's crown,
Look like thistle down
When sailing across the sky.
Riddle me, riddle me, ro,
I'm nearly as pure as snow;
On me rainbows glance,
On me fairies dance,
As over the waters I blow.

A. P. HAMPTON.

2—DIAMOND.

1, a consonant; 2, a marsh; 3, a head-dress worn by the Pope; 4, a transparent marble; 5, a river in France; 6, consumed; 7, a vowel.

PERRIE HYDE.

3—CHARADE.

THE PRIMAL, with his gold,
Should be LAST, I am told
To banquet on milk and honey;
But in hoarding his wealth,
He undermines his health,
And ALL is he with his money.

Selected.

4—CHARADE.

She's just a tiny little thing,
With sweetest eyes of blue;
She couldn't ONE a nicer girl,
My sweetheart good and true.
She's small of stature, but her form
Is full of subtle grace;
To say she is a pretty TWO
Might not describe her face.

Her lips are the most kissable
That ever were steeped in bliss;
They most COMPLETE me when she says,
"Papa, dimme a tiss."

A. P. HAMPTON.

STOCK GOSSIP.

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

SOUTHDOWN MEN IN SESSION.

The American Southdown Association met in annual session at Springfield, Ill., May 29th. Mr. George McKerrow, Sussex, Wis., presiding. The financial reports indicate that the Association is in a prosperous condition. It was decided that the first five volumes of the American Southdown Record be offered as special premiums at State and Provincial fairs of Canada, for pen of four lambs (two rams and two ewes) bred and owned by exhibitor. Also that a gold medal be offered for the best flock of Southdowns, as indicated by the premiums won at fairs in 1895.

The limit of time for recording lambs born in 1895 and thereafter, for 50c. each to members, was extended from January 1st to July 1st, following year of birth. Transfers not recorded within six months of sale will be charged a fee of 50c.

From the report of the Secretary, we extract the following: "Reports from breeders are of an encouraging nature, and lead to the belief that during the coming season the demand for Southdowns will be greater than ever before. The changing of wool-growing flocks to those that will produce mutton first and wool secondly, presents a grand opportunity for Southdown breeders. There is no question as to the superiority of their mutton, their claims for a fineness of wool next to the Merino; their prolificacy; their early maturity; their healthfulness, are well founded, and for hardiness the Merino, heretofore claiming the first place, must give way to the Southdown. Wherever they have been tried, either on the Merino, native or other sheep, their good qualities make them favorites. In regard to them, Mr. R. E. Fitzgerald, Shiner, Texas, says: 'I use all my thoroughbred rams on my Merino flocks, and the cross is perfectly splendid. In 1890 I saw that we could no longer raise sheep profitably for their wool only, so I concluded to try thoroughbred Shropshires and Southdowns. I have nothing to say against the Shropshires, and if I had not tried them along side with the Southdown, I am sure that I would have been satisfied with them, and thought they were good enough. The Southdown is the hardest sheep in the world. It was thought that no sheep could withstand our hot, dry climate like the Merino, but the Southdown will stay fat where the Merino will die of poverty. I saw that fully tested the past winter.' Mr. C. H. Nimson, in addressing the Sheep Breeders' and Wool Growers' Association, of Mitchell Co., North Carolina, speaking of the sheep owned by the Bellevue Farm Company, said: 'At Bellevue we selected the Southdown, because we believed that these sheep were better adapted to the climate, soil, and the surroundings, we could afford them, than any other. We commenced five years ago with poor, unselected native ewes of all ages, sizes and shapes—good, bad and indifferent; crossing them with pure-bred registered Southdown rams. The first cross made a wonderful change in the general appearance of the lambs, and in course of time they developed the characteristics of the Southdowns in other respects to an extent we had not been looking for. The second and third crosses have developed a mutton sheep that handle with ease and fatten readily. Our flock of grade and thoroughbred Southdown lambs will turn out a large proportion of good profitable feeders, weighing from seventy to one hundred pounds by December 1st. We have at Bellevue now more demand for Southdown ewes than we could begin to supply, even if we had our breeding flock up to the fullest capacity we could carry on the farm. The experience of these two flockmasters is that of others who have introduced the Southdown for the betterment of their sheep. This cross has been so successful that, as Mr. Nimson says, after five years' experience with a flock numbering from 300 to 700, graded up from the native sheep, we could not be induced to even experiment with other breeds. To make known these facts as to the Southdown's superiority for remodeling other breeds to conform to the sheep in demand to-day, must be the aim of all Southdown breeders. Their introduction into the several sections of the country will in a short time convince breeders that this is the breed they need. The greater demand for these sheep the coming season will be followed by a greatly increased call for them the next. The coming prosperity of those engaged in breeding them seems conclusive, and the greatest care should be taken to keep the breeding flock recorded, so that the high price that is always realized for stock thus fortified as to purity may be assured.

Officers elected for the ensuing year are:—President, John Hobart Warren, Hooick Falls, N. Y.; Secretary, John G. Springer, Springfield, Ill.; Treasurer, D. W. Smith, Springfield, Ill. Members of Board of Directors—Cassius M. Clay, White Hall, Ky.; John Jackson, Abingdon, Ont., Can.; W. E. Spicer, Harvard, Neb.

The meeting adjourned to reassemble at Chicago during the Fat Stock Show, and at that meeting to discuss the advisability of holding annual meetings in Chicago.

NOTICES.

An opportunity to secure good dairy Shorthorns, at this age of choice and better as well as better prospects in beef, should give Robt. Garnham's advertisement in this issue a special interest. Good Shorthorns are always good property, and when they have extra dairy qualities they have just that much more to commend them.

PROTECTION FROM LIGHTNING.

It may not be generally known that a building roofed with Steel Shingles cannot and has never been known to be injured by lightning; therefore it is in the interest of farmers—especially to use this kind of roofing, for it is also fire-proof, durable, and ornamental; and when purchased of a reliable and old established firm, never fails to give satisfaction. Those about to build or re-roof old buildings will do well to correspond with The Metallic Roofing Co., of Toronto, who do a very large trade in Steel Shingles, etc. We hear that they have lately sold over two hundred tons of the "Ex-State" Shingles for shipment to Manitoba, where such goods are used for protection against prairie fires, etc. This Company was awarded 37 first prizes at different fairs last year.

GREAT SALE of JERSEYS

I will sell my entire herd of Jerseys (except calves) at my farm, Delaware, on

Thursday, June 20th, 1895.

THEY ARE OF THE CHOICEST BREEDING.

And for business purposes cannot be excelled. At the same time will be sold a number of

Shorthorn Cows, Fat Steers, Etc.

ALSO YORKSHIRE SWINE AND SHETLAND PONY.

RICHARD GIBSON,

11-a-om DELAWARE, ONT.

Horse Owners! Try

GOMBAULT'S

Caustic

Balsam

A Safe Speedy and Positive Cure

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

Health Restored

ALL RUN DOWN

No Strength nor Energy

Miserable

IN THE

EXTREME.

Hands

COVERED

—with—

SORES.

CURED BY USING

Ayer's Sarsaparilla

"Several years ago, my blood was in bad condition, my system all run down, and my general health very much impaired. My hands were covered with large sores, discharging all the time. I had no strength nor energy and my feelings were miserable in the extreme. At last, I commenced taking Ayer's Sarsaparilla and soon noticed a change for the better. My appetite returned and with it, renewed strength. Encouraged by these results, I kept on taking the Sarsaparilla, till I had used six bottles, and my health was restored."—A. A. TOWNS, prop. Harris House, Thompson, N. Dak.

Ayer's Sarsaparilla

The Only Sarsaparilla

Admitted

AT THE WORLD'S FAIR

TO SMOKERS

To meet the wishes of their customers The

Geo. E. Tuckett & Son Co., Ltd., Hamilton, Ont., have placed upon the market

A Combination Plug of

"T & B"

SMOKING TOBACCO.

This supplies a long-felt want, giving the

consumer one 20-cent plug, or a 10-cent piece, or a 5-cent piece of the famous "T & B" brand of pure Virginia Tobacco.

The tin tag "T & B" is on every piece.

W. R. BOWMAN, Mount Forest P. O., Ontario,

Dealer of Shorthorn Cattle, Shropshire Sheep, Berkshire and Improved Yorkshire Swine, Young stock of both sexes for sale. Prices moderate. Correspondence solicited.

MONTREAL EXPOSITION

COMPANY.

4th Provincial Exhibition

12th to 21st Sept., 1895.

AGRICULTURAL AND INDUSTRIAL

GRAND SHOW OF

LIVE STOCK, DAIRY and

AGRICULTURAL PRODUCTS.

SPLENDID SHOW ASSURED.

Apply early for space.

S. C. STEVENSON,

12-1f-om 76 St. Gabriel St., MONTREAL.

HORACE N. CROSSLEY,

PROPRIETOR OF THE

SANDY BAY STOCK FARM,

Importer and breeder of

SHIRES, HACKNEYS, AND COLLIE DOGS.

The above stud, though only commenced in

1890, has achieved unparalleled success at all the leading Canadian shows, such as Montreal, Toronto and London, also at the CHICAGO WORLD'S FAIR. The most notable in this stud are, the Shire horse Bravo II, 12835, winner of first at Toronto, Montreal and London, and also beating all Clydes at the latter show in the sweepstakes. Hackney Fireworks No. 3602, winner at Chicago, Toronto and London. Shires and Hackneys always on hand for sale. For further particulars apply to the Proprietor, ROSSEAU, Muskoka.

1864. HILLHURST FARM. 1894.

HACKNEY HORSES,

Shorthorn and Aberdeen-Angus cattle, Shropshire and Dorset-Horn sheep.

M. H. COCHRANE,

162-v-om HILLHURST STATION, P. Q.

1895.

Winnipeg Industrial Exhibition.

THE FIFTH ANNUAL EXHIBITION

WILL BE HELD ON THE

Association's Extensive

Grounds at Winnipeg,

FROM THE

15th to 19th JULY.

\$15,000 in Prizes!

For Stock, Agricultural Products,

Manufactures, Fine Arts, etc.

COMPETITION OPEN TO THE WORLD

(except in certain classes).

SPECIAL RATES FOR VISITORS.

Free Transportation on Railways for Exhibits

ATTRACTIONS Including

TUESDAY (Children's Day).—Running, trotting and walking matches for horses, double and single dog races, children's races, buggy races, bicycle parades, etc.

WEDNESDAY (Farmers' Day).—Races for farmers' horses, trotting, running and jumping, bicycle races, foot races, gentlemen's road races, grand stock parade.

THURSDAY (Citizens' Day).—Grand stock parade, novelty races, and grand drill competition by uniformed divisions of secret societies of Manitoba and Northwest Territories, musical ride by Royal Canadian Dragoons.

FRIDAY Tent pegging, heads and posts by Royal Canadian Dragoons, bicycle races, dog races, foot races, ladies' running races, children's military drill, piano playing competition, etc., etc.

And other special attractions to be advertised later. All entries close on 5th July. Prize lists and entry forms will be mailed FREE on application to

ANDREW STRANG, L. A. HAMILTON,

PRESIDENT. VICE-PRESIDENT.

F. W. HEBBACH, Manager, WINNIPEG.

FOR SALE.

As I am retiring from farming, I offer for

sale ten head of good milking Shorthorns at rock bottom prices—three good milking cows, three two-year-old heifers, three yearling heifers, and one good yearling bull. Write me for prices and particulars.

ROBT. GARNHAM,

12-d-o Guysboro P. O., Ont.

NOTICE.

CEMENT CONCRETE FOR WALLS, ETC.

Mr. Isaac Usher, Thorold, informed us, during a recent visit, that his late trips among his patrons, to whom he has been giving instructions, have been in the vicinities of Baden, New Hamburg, Stratford, and Exeter, where many Queenston Cement Concrete structures are going up. Among his patrons at Stratford he mentioned the names of Hon. Thos. Ballantyne & Sons, who are having their entire stabling floored, and a 10x20-foot hog pen, with troughs, built all of cement concrete. It may be interesting to farmers who are having building done, that these floors are put down at the small cost of from 21 to 25 cents per square foot. Hog troughs which are entirely satisfactory, as well as indestructible, cost about 30 cents each. There is nothing to hinder any farmer to undertake and complete the work of constructing silos, walls, floors, troughs, etc., as well as any mechanic, if he receives the instructions which Mr. Usher will come to his place and give at his own expense.

IT PAYS TO ADVERTISE

IN THE

FARMER'S ADVOCATE

YOUNG STOCK are healthier, grow stronger and faster, and do better generally if they have access at all times to salt. A few lumps of

Rock Salt

placed in the pasture, in the yard, or in the pen, anywhere they can get at it, will salt them the cheapest and best.

400 lbs. or over at 50c. per 100. Cash with order. Toronto Salt Works, 128 Adelaide Street East, Toronto, Ont.

SUNLIGHT SOAP

THE

6c TWIN BAR

GREAT

VALUE

ALL GROCERS

1864. HILLHURST FARM. 1894.

HACKNEY HORSES,

Shorthorn and Aberdeen-Angus cattle, Shropshire and Dorset-Horn sheep.

M. H. COCHRANE,

162-v-om HILLHURST STATION, P. Q.

1895.

THORNCLIFFE STOCK FARM!



Montrose, The Ruler, Carruchan Stamp, Knight Errant and other celebrities. My stock in the above lines were very successful at all the large shows last year. Call and examine our stock before purchasing elsewhere. Terms reasonable.

I have on hand the best young **CLYDESDALE** Horses and Mares on this continent. Bred from the well-known sires, Prince of Wales, Danley, Macgregor, Energy, Lord

SHROPSHIRE.

Orders can now be booked for Shearling Rams, Ram Lambs and Ewes, sired by the celebrated prize-winning English ram, Bar None. Also Rams and Ewes of this year's importation.



SHORTHORNS!

CHOICE YOUNG HEIFERS and BULLS

by the celebrated Cruickshank bulls

NORTHERN LIGHT

—AND—

VICE CONSUL



ROBERT DAVIES, Proprietor. P. O., Toronto.

SHORTHORNS & SHROPSHIRE

One imported Cruickshank bull, 3 years. Ten grand young bulls. Ten splendid heifers, all Scotch. Twenty shearling ewes in lamb. Ram lambs and ewe lambs. For sale at lowest prices.

JOHN MILLER & SONS, Brougham, 12-2-y-om Ontario.



SHORTHORNS.

I have FOR SALE two Shorthorn heifers and two bull calves of fine breeding, fine colors, fine form and carriage, in fine condition, at fine cut prices. Also one or two cows.

Shorthorns, Shropshires and Berkshires.

Having rented one of my farms, I will sell at very much reduced prices, six young Shorthorn bulls; thirty Shropshire ewes, in lamb to imported ram; fifteen ewe lambs; six Berkshire sows, due to farrow in March and April, and two boars, six months' old. All registered and choice quality.

CARGILL HERD OF SHORTHORNS.

Stock from imp. bulls and imp. and home-bred cows. Catalogue now in printer's hands. Send for one.

H. CARGILL & SON, CARGILL, ONT. 11-y-om

FOR SALE—Shorthorns: Bull Calf one year old; Heifers giving milk and younger ones. Also Fruit Farm, at Clarkson, 16 miles west of Toronto. Sandy soil, 80 acres of land, good house and outbuildings, 425 apple trees, 10 cherry trees, 600 grape vines, 330 plum trees, 500 pear trees. Possession immediately. Apply to C. G. DAVIS, Freeman P.O., Ont. 13-y-om

FOR SALE.

A choice lot of Shorthorns—bulls and heifers—of good quality and of the most approved breeding. Show animals a specialty. The accompanying card represents Fair Queen 2nd, the foundation of my herd. Her produce offered for sale. Come and see us, or write for particulars.

JOHN MORGAN & SONS, KERWOOD, ONT. 21-y-om

HAWTHORN HERD OF DEEP MILKING SHORTHORNS.

FOR SALE—Young Heifer in calf, and Heifer Calves. The Golden Drop bull, Golden Nugget = 148 =, by imp. General Booth = 6465 =, (6435), at head of herd. W. M. GRAINGER & SON, Londresboro, Ont. 13-y-om

SUNNYSIDE HOLSTEIN-FRIESIANS

Choice animals, either sex, all ages, for sale at any time. Correspondence solicited. Address

McDUFFEE & BUTTERS, Stanstead, P.Q. 16-y-om

GEM HOLSTEIN HERD

STOCK FOR SALE BY ELLIS BROTHERS, BEDFORD PARK P.O., ONT.

Five miles north of Toronto, on Yonge Street. Electric cars pass our gate. Inspection solicited. Correspondence solicited.

Write ME88RS. ROBERTSON & NE88, Howick, Que 19-y-om

ADVERTISE IN THE ADVOCATE

CLYDESDALES AND HACKNEYS



A FEW FIRST-CLASS CLYDESDALE Stallions, Mares & Fillies for sale. Prices to suit the times. Come and see them, or write for prices.

GRAHAM BROS.,

Claremont, Ontario. 25 miles east of Toronto, on C. P. R. 4-1f-om

SPECIAL OFFERINGS AT REDUCED RATES

—TO THOSE WHO WISH TO—

DOUBLE THE BUTTER YIELD OF THEIR HERDS.

6 Jersey bull calves, 2 to 4 months old, bred entirely for GREAT BUTTER YIELD.

Sired by bulls whose dams make 17 1-2 to 26 3-4 lbs. Butter a Week.

As my fall cows gave an unusual number of bull calves, I have decided to place them within reach of all who want an extra bull for next summer, viz.: \$60 to \$80 each, registered, and express prepaid by me to their destination. MRS. E. M. JONES, Box 324, Brockville, Ont., Can. Mrs. Jones' great book, Dairying for Profit, 30c. by mail. Address, ROBT. Y. BROWN, Agent, Box 324, Brockville, Ontario, Canada. 8-y-om

ISALEIGH - GRANGE - FARM

Offers for the next month a choice lot of IMPROVED LARGE YORKSHIRE PIGS,



From six to eight weeks old, sired by four different imported boars. Our herd is one of the best and largest in America, and we can supply pairs not akin from the best imported stock in Canada at prices very reasonable. Send in your orders at once, as we are shipping every day. Address,

T. D. McCALLUM, Manager, Danville, Quebec. 9-y-om

MAPLE HILL HOLSTEIN-FRIESIANS.

Have you the blood of the great butter cows, DeKol 2nd, Empress Josephine 3rd, Mechthilde and Pauline Paul, in your herd? If not, why not? The demand for this blood exceeds the supply. Speak at once if you want some of it.

12-y-om G. W. CLEMONS, St. George, Ont.

FOR SALE AT BARGAINS

Six Durham Bulls, fit for service, the get of Daisy Chief 13674; also a few Berkshire Pigs, both sexes, and sows due to pig in April.

12-2-y-om A. J. C. SHAW & SONS, Thamesville.



WHO WANTS JERSEYS?

I have for sale 3 young cows in calf; 5 registered heifers in calf, due to calve from August to December; 3 heifer calves; one yearling bull; 2 bull calves. All solid color, richly bred, fine individuals, at reasonable prices. For particulars and prices, address

8-y-om J. C. SNELL, Edmonton, Ont. R.R. Station, Brampton, G.T.R. and C.P.R.

HILLSIDE FARM, CAMPBELLFORD, ONT.

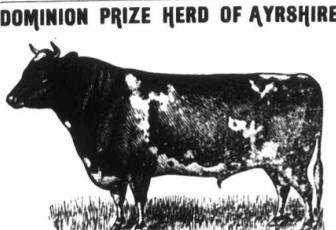
I have a choice Jersey Bull, 2 years old, 3 St. Helier and 1 St. Lambert, also a 7-8 bred calf, which I will dispose of at reasonable figures. MISS H. F. BULLER, Campbellford. 11-d-om

Prize-Winning AYRSHIRES FOR SALE.

I have at present one of the largest and best herds in Ontario, which has been very successful in the prize ring. They are deep milkers and of a large size. Bulls, cows and heifers for sale always on hand.

JAS. McCORMICK & SON, ROCKTON, ONT. 20-2-y-om

DOMINION PRIZE HERD OF AYRSHIRES



We have the oldest established, largest and best herd of Ayrshires in Canada. Choice young stock for sale at liberal prices. Satisfaction guaranteed. JAMES DRUMMOND & SONS, Petite Cote, Montreal, P.Q. 8-2-y-om

DANIEL DRUMMOND

BURNSIDE FARM, Petite Cote, P. Q., BREEDER OF AYRSHIRE CATTLE. 16-2-y-om

STOCK GOSSIP.

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

Bear in mind Mr. Richard Gibson's sale of Jerseys, Shorthorns, and Yorkshire swine, at Delaware, on Thursday, June 20th.

The Montreal Exposition Company place with us, in this issue, an advertisement of their fourth Provincial Exhibition, to be held from Sept. 12th to 21st, 1895. This show is an important one, so that those needing space in any of the buildings should secure it at once.

Under date of June 7th, Alex. Galbraith, Secretary of the American Clydesdale Association, Janesville, Wis., writes us as follows:— "Just three weeks more and penalty fees will again be exacted on entries of all animals over one year old. A great many Clydesdale breeders have taken advantage of the opportunity offered since January 1st of having their stock of all ages recorded without paying any penalty fees. Those who have neglected to record any of their animals will now take notice that this is their last chance for doing so on such favorable terms, and the Executive Committee trust that every breeder will consult his own interests by responding promptly to this call. June 30th is the last date on which such entries can be received. The steadily improving tone noted lately in the draught horse market still continues, and the prospects are that an advance of quite thirty-five to forty per cent. from the lowest point will be firmly established before the end of the year. In view of this substantial advance, our breeders should awaken to the immediate necessity of making every good, sound draught mare, whether pure-bred or grade, to the best Clydesdale stallion within reach. Long before the produce of 1895 is old enough for work we are bound to see draught horses very high in price again, and in order to receive the benefit we should resume our breeding operations at once. Those who have not yet purchased the stud books have an opportunity to do so as long as the present stock lasts at the reduced price of \$2.00 per volume, or \$12 for the full set of eight volumes complete."

LEICESTERS AND BERKSHIRES AT RIVERSIDE STOCK FARM.

A few miles south-west of Delhi, Messrs. Siphill & Carroll of Carlisle, are breeding Berkshires and Leicester sheep of No. 1 quality. Their stock is not large, and, owing to this fact, they are able to keep it up to a high standard. New basement barns were being erected at the time of our visit, and Mr. Siphill informed us that more care and attention than ever will be given the stock. The Berkshires are of a desirable type—lengthy, deep, and good bone. Chieftain—3104—heads the herd; he is a very even, straight boar, of good length and much quality, with a good, strong bone, and plenty of character, by King Siphill—1077, and from Sister A. 19th—2461. This boar was successful in winning seven firsts last season out of eight competed for. In the next pen we saw Carholme Lass—3457—, a grand young sow, which was nursing a finely marked, strong litter of eleven pigs of splendid quality. This sow was sired by Golden Ping 2nd 2187, a grand boar, purchased from C. R. Decker, Chesterfield; her dam being Maid of Chesterfield—1760—; a sow that has proved herself a grand breeder, and a winner of first honors wherever shown. She possesses the many good qualities which constitute a high-class Berkshire. She was bred by C. R. Decker, Chesterfield, from the sow, Black Sally 2nd (1447), and sired by Bismarck 2nd (1219).

The Border Leicesters were first selected from the noted flocks of John Kelly, Shakespeare; Wm. Whitelaw, Guelph, and Nichol, Plattsville. The Leicester flock is not large at present, as a number was disposed of last year, but are of the best quality and breeding to be obtained. Leicester sheep have been bred at Riverside Farm the last thirty-four years, and in adding fresh blood to the stock, nothing is purchased but what is considered first-class, either in Leicesters or Berkshires.

WILLSCHROFF STOCK FARM.

Some ten miles south of Tillsonburg, and near Glenmeyer P. O., Mr. Robert Willis, Jr., is engaged in breeding Poland-China swine and Holstein-Friesian cattle. The Holsteins are few in number as yet, but as Mr. Willis is well pleased with his venture in this line so far, it is his intention to increase the herd. The two-year-old bull, Algonia of Lindencourt 611, bred by A. Gifford, Meaford, Ont., is at the head of the herd. He is a good, useful animal, sired by Lindencourt Barrington 48, dam Ocean Wave 293. The cows, Lizzie Kent 970 (imp.), bred by Martin L. Sweet, Grand Rapids, Mich.; sire Gelske's Tritonia Prince 1486; dam Janet's Harms 4098; and Madolyn Duchess 2nd 983, also imp. and bred by Martin L. Sweet, by Gelske's Tritonia Prince 1486, dam Madolyn Duchess 1673, are good useful cows, the latter giving 3,000 pounds of milk in three months, in her two-year-old form. Another good cow is Sarah Jane, got by Springfield Boy 104, dam Duchess of Wyton 226. We saw a good bull calf from this cow, well marked and very even and straight; also another good bull calf from Madolyn Duchess 2nd.

In looking over the Poland-Chinas, of which there is a large number to select from, of the best breeding, we particularly noticed Cora—514—, a very lengthy, deep sow, with a successful show record at county fairs; bred by J. J. Payne, Chatham, Ontario, and sired by Moorish King 2nd—430—; dam Bess B—530—. Another good sow is Prairie Queen—815— (imp.), bred by E. H. Korlee, Prairie Depot, Ohio; got by Eric's Brilliant 2915.9; dam Shortnose 2nd 6428.0. Elected Queen—57— is a finely-marked sow of grand conformation; sired by Elected—418—; dam April Queen—507—, bred by J. J. Payne. Mora Bell—759— and Lulu—796— are good young sows, bred by Oliver Drury, Fargo, a very nice, straight young boar, six or seven months old, was also seen. There is a good supply of young pigs at Willschroff from which to select, ranging from six weeks to two months old, mostly sired by Benham's Wilkes—700—, an imported boar bred by E. E. Benham, Tippicanoe City, Ohio. Owing to the loss of this boar shortly after its parting him, Mr. Willis has purchased an extra fine boar from E. H. Korlee, Prairie Depot, I. O., who claims him to be a boar of general excellence—lengthy, deep and good bone, weighing 800 pounds. When in fit this boar should produce some grand stock from the sows we saw. See Mr. Willis' advertisement.

STOCK GOSSIP.

Jno. Racey, Jr., Lennoxville, Q.—"Our Short-horns and Berkshires have come through the winter in fine order. We have an exceedingly good lot of young pigs to dispose of, principally by our boar Randolph (bred by N. Benjafield), the balance by the old prize-winner, Clifford, and out of choice, well-bred sows. There are some grand young boars in the lot. Our young bulls have all been sold, with the exception of one that is too young for service this season. Persons wanting something really good in the way of Berkshires would do well to write or call and see our stock."

AMERICAN JERSEY MEN MEET.

The American Jersey Cattle Club held their annual meeting in New York, on May 1st, with 40 members from 13 different States. President E. A. Darling, N. Y., in his opening address, referred to the successes of the Club during the year, which is shown by the increased membership, and the great increase of registrations, which have been 640 over the previous year, 506 of which were bulls. The total number registered to date is 144,800. In transfers of ownership there has been an increase of 1,083 over the previous year. During the year of general business depression, it is gratifying to the members of the Club to know that they were able to pay off a mortgage of \$14,000 on the Club building, and that the present working capital is about \$7,500. The receipts from all sources for the fiscal year amount to \$32,035, as against \$30,476 for the previous one. Vols. 42 and 43 of the Herd Register have been issued during the year, containing the entries of 14,000 animals, and the work of vol. 44 is well advanced. The President was of the opinion that the entry fee of \$25 is more protective than is necessary; he, therefore, recommended that it be reduced to \$10. The Club has had printed and circulated about 30,000 copies of Mr. V. E. Fuller's report on the World's Fair dairy tests. An other valuable pamphlet has been issued for distribution, containing a description of the Island of Jersey, articles on the Jersey cow, the Bovina cow census, the comparative value of milk, the Jersey as a cheese cow, and articles on the World's Fair dairy tests, all in a readable and popular style, especially calculated to awaken the interest of those engaged in dairying. The Jersey interests, and the number of Jersey breeders throughout the country are becoming so great that it is deemed advisable by the Club to throw greater safeguards around the registration of cattle in their herd book by non-members of the Club; and therefore, the committee recommended that after Oct. 1, 1895, before any application for registration by non-members be acted on, the applicant shall be vouched for in a manner satisfactory to the Executive Committee.

Election of officers.—President, E. A. Darling, New York; Vice-President, Samuel Waring, Spring Hill, Tenn.; Treas., W. W. Law, New York; Directors—A. F. Platter, Denison, Tex.; H. C. Taylor, Oxfordville, Wis.; W. W. Weed, Potsdam, N. Y., and Chas. Miller, Franklin, Pa. At a subsequent meeting of the Board, Valency E. Fuller, Lowell, Mass., was re-elected Vice-President, and Mr. J. J. Hemingway, New York, re-elected Secretary.

A proposition by Mr. Fuller to admit to the book of butter (churn) records the results of tests by the Babcock tester was, after a long discussion, rejected.

BELLEVUE STOCK FARM.

A short drive south of Birdsall, on the C.P.R., beautifully situated on the north shore of Rice Lake, is Bellevue Stock Farm, the property of F. Birdsall & Son. It comprises over four hundred acres of choice grazing and grain lands, on which are kept a large stock of horses, Shorthorn and Jersey cattle, Oxford Down sheep, and Chester White pigs. We first inspected the Shorthorns, among which many good animals are to be seen. The two-year-old bull Warden 19721—, heading the herd, has many good qualities to recommend him, and whose ancestry have noted showing records; he was bred by J. & W. Russell, Richmond Hill, and was sired by Prince Royal, a winner of first, two years in Toronto, and headed the first prize herd in 1892; he is closely related to Isabella 8th, dam of the heifer Centennial Isabella (25), winner of sweepstakes in '92, for best female any age, at Toronto and Montreal; 2nd in Chicago, in her class, and standing ahead of her opposer in the sweepstakes, and called by many the best Shorthorn cow at Chicago. Among the cows, Arkell's Daisy, by the Governor 12289—dam Arkell's Fancy 11167—, is a four-year-old of fine conformation, and a grand breeder, as we saw by a fine roan bull calf, five months old, very even and straight, and of a growthy, promising appearance; got by Wimple's Warfare, a bull bred by Arthur Johnston, Greenwood. Many other good cows were seen in the herd—good milkers and grand breeders, judging from the young stock. In the stables we saw a five-months-old heifer by Waverley's Legacy, a winner at the World's Fair; this heifer would do credit to any showing if put in proper shape, as also would the heifer Princess Eulalia, from the same dam. Messrs. Birdsall have been breeding Shorthorns for many years, and in adding fresh blood, those from good milking families have been invariably chosen.

At the head of the Jerseys is Moloch, a very handsome son of the noted bull One Hundred Per Cent. This bull is now offered for sale by Messrs. Birdsall in our advertising columns. We were shown a five-months-old heifer calf, a perfect beauty in both color and conformation, from this bull and Lou Britalli, a cow of St. Lambert and St. Helier blood; also a very nice bull calf, Excaliber, from Briars Lady Bird, and by Moloch.

The Oxford Downs at present number some 35 head of pure-breds and 68 high grade breeding ewes. The foundation stock was bred by Henry and Peter Arkell, and are of the Brassey stock. The best home-bred or imp. dams have always been used; therefore the flock is improving in quality from year to year. An imported Adams ram, and a ram of Henry Arkell's (of Arkell's breeding) were used in the flock last season, and as a result a flock of strong, fine young lambs are to be seen.

REMOVED FOUR RINGBONES AND ONE SPAVIN. Altamont, N. Y., Dec. 10, 1894. The Lawrence-Williams Co., Cleveland, Ohio: I have used your Gombault's Caustic Balsam for four cases of ringbone and one of spavin, and found it to be successful in every case, and would recommend it to all dealers in horses. G. A. CROUSE.

The **WHITE ENGINES** are positively guaranteed to satisfy purchasers.

We sell them on this understanding, and will not require settlement until such is given.

The following parts are made of steel: Boilers, Wheels, Axles, Smoke Box and Stack, Rods, Crank Shaft, etc.; consequently no warping nor cracking.

GEORGE WHITE & SONS,
London, Ontario.



FIFTY YEARS' EXPERIENCE!



We must make good stoves or the people would not have bought them year after year.

—THE—
MODEL WOOD COOK
—IS THE—
FARMER'S STOVE

"MODEL" FOR WOOD—2,000 SOLD ANNUALLY.

THE McCLARY MFG. CO.
7-y-om LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER.

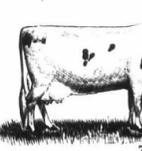
The GLEN STOCK FARM AYRSHIRES

We have 6 young Bulls that will be fit for service in the Spring. They are good individuals, are well bred, and will be sold on reasonable terms.



We have also a number of imported and home-bred Shropshire Ewes and Ewe Lambs for sale at very low prices.
7-y-om
WHITESIDE BROS., Innerkip, Ont.

AYRSHIRES - AND - YORKSHIRES.



The largest herd in the Province of Quebec; selected from deep-milking strains. Also choice Yorkshires. Orders booked for young pigs.
W. F. & J. A. STEPHEN,
Trout River, Que.
7-1-y-om

GUERNSEYS

Having two stock bulls, will sell either of them; grand stock getters; first-class animals.

YORKSHIRES.

Boars fit for service; sows in farrow, and a grand lot of spring pigs.
W. H. & C. H. McNish,
20-y-om LYN, ONT.

Pure St. Lamberts

YOUNG BULLS fit for service, and bull calves sired by Jolie of St. Lambert 3rd's Son, 29731, and Lady Fawn of St. Anne's Son, 25703. The get of these two bulls have swept everything before them at the Toronto, London, Ottawa and Quebec Shows of 1893-4. Dams of the young bulls are daughters and granddaughters of

The Famous St. Lambert Cows,

Jolie of St. L., Pet of St. L. and Lady Fawn of St. A. Farmers! If you wish to double the butter yield of your herd, buy a pure St. Lambert Jersey bull. The St. Lamberts, for size, constitution, and wonderful production of milk and butter, lead all other strains known.

PRICES VERY LOW.
Apply to

W. A. REBURN,
20-y-om St. Anne de Bellevue, P.Q.

JERSEY-CATTLE

Of the heaviest milking strains. One of the largest herds in Canada; bred closely to the great dairy cow at Chicago, also the famous two-year-old. Sires of both were sold from this herd. Also Welsh Blood Ponies for ladies' and children's driving. Stock for sale always on hand. **GEO. SMITH & SON,** Grimsby, Ontario.
3-y-om

JOHN YEAGER,

OSAGE AVENUE, SIMCOE, P.O.
Breeder of Choice Jerseys, Berkshire Swine, and Scotch Collie Dogs.
Correspondence solicited. 6-2-y-om

JERSEY HURST HERD OF JERSEYS.

ROBERT REESOR, LOCUST HILL, ONT.—Choice Jerseys for sale at all times; grand individuals of the St. Lambert and St. Helier strains. Locust Hill is 20 miles from Toronto, on C. P. R. 6-2-y-om

GLEN ROUGE JERSEYS

WILLIAM ROLPH, Markham, Ont., offers Twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. 21-y-om

ARKLAN STOCK FARM

(Adjoining the Town of Carleton Place.)

JERSEY CATTLE
Herd headed by Carlo of Glen Duart 15037, A. J. C. C. champion Jersey bull whenever exhibited. Young stock from prize-winning animals for sale, out of deep-milking strains. Correspondence solicited and inspection invited.

A. C. BURGESS,
Carleton Place, 7-y-om Ontario.

WILLOW GROVE HERD OF JERSEYS.

Sweepstake herd of 1894. Stock from imp. bulls and imp. and home-bred dams of St. Lambert, St. Helier, and Signal strains. Young of splendid individuality always for sale; also Plymouth Fowls, Eggs, \$1.00 per sitting. Highfield St., G. T. R. 6-2-y-om
J. H. SMITH & SON.

SHROPSHIRE

A choice lot of Shearling Rams and Ewes, and this season's lambs from imported dams, and sired by a Beny ram, to choose from.
JAMES COOPER & SON,
11-2-y-om Kippen, Ont.

C. & E. WOOD,

Locust Lodge, Freeman P. O.,
"Breeder of high-class LEICESTER SHEEP AND POLAND-CHINA SWINE." Stock for sale at prices to suit the times. Correspondence solicited. 10-2-y-om

THE GRANGE

QUOTES:

Redpath's or St. Lawrence Extra Granulated	\$3 50 per 100
Good Yellow Sugar	2 70 " "
Special Blend (High Grade)	
Black Tea	2 80 for 10 lb.
Choice May Pickings Japan Tea	2 30 " "
Redpath's Honey Syrup in tins holding three imperial gallons	1 25 per tin.
(We are the only house in the trade than can supply you with this syrup at the price.)	
Good Valencia Raisins, New	\$1 00 per box
Barb Wire, delivered in 500-lb. lots	2 87 1/2 per 100
Striped Denim for Shirts or Smocks, retails at 18c.	13
Best Indigo Blue Striped or Checked Shirting, retails at 15c.	11
34-inch Grey Cotton Heavy, retails at 8c.	05

The Grange Wholesale Supply Co.

126 King St. East, (Ltd.), TORONTO. G. W. HAMBLBY, Mgr.

DEATH on CATTLE FLY and SHEEP TICKS

The best compound to keep the flies off. Fluid or Paste Form. Samples by mail, 25c. Write for circular, price list and reference.



11-d-om **C. E. MILLS OIL CO.,** Syracuse, N. Y.

LARGE IMPROVED YORKSHIRE PIGS and Holstein Cattle.

We breed nothing but the best, and sell cheap, and guarantee satisfaction or ask no pay. Come and see us, or write for prices and be convinced.
FLETCHER BROTHERS,
Oxford Mills P. O., Ont., Kemptville 8't'n, C. P. R. 6-2-y-om

Specialty of Improved Large Yorkshire Hogs



The largest and most successful prize-winning herd in Canada. In the management of my herd I have endeavored to produce what the market demands, combining the most profitable type for the feeder. Extra lot of in-pig sows for sale cheap. Am booking orders for spring pigs suitable for exhibition or breeding purposes. All stock guaranteed as described.
J. E. BRETHOUR, Burford, Brant Co., Ont. 3-y-om

BREEDERS OF Large Improved Yorkshire Pigs.

A choice assortment of Yorkshires, all sizes and ages, ready for sale now. They are good ones. Only first-class stock shipped to order. Markham Herd Farm, at Locust Hill, Station. 17-y-om **JNO. PIKE & SONS.**

LARGE IMPROVED WHITE YORKSHIRES and ENGLISH BERKSHIRES

Now ready, boars fit for service; young sows ready to mate, and sows in farrow. Prices reasonable. Pairs supplied not akin. Apply to
WILLIAM GOODGER & SON,
11-y-om Box 160, Woodstock, Ont.

H. CRECC & SONS,

SALFORD, ONT. Breeders of Berkshires and Chester White Swine. We have for sale young stock of either sex, and any age, at prices to suit the times.

LARGE ENGLISH BERKSHIRES

My herd are imported or bred from imported stock, and have carried winnings at leading shows for years, including sweepstakes over all breeds at last Guelph Fat Stock Show. Pigs of all ages for sale, pairs supplied not akin.
GEO. GREEN, Fairview, Ont. 9-y-om

H. J. DAVIS, Woodstock, Ont., Breeder of Short-horn Cattle, Imp. Large White Yorkshire and Berkshire Swine. Some very fine young bulls of good color and breeding, from 12 to 18 months old, for sale. Also a number of Yorkshire Boars of splendid quality, fit for service, and a good lot of Yorkshire Sows ready to breed. Berkshire boars of the right stamp fit for service; also sucking pigs of both breeds for sale at moderate prices. Inspection invited, or write for description and prices. 8-y-om

ISRAEL GRESSMAN, New Dundee, -IMPORTER OF- Large - English - Berkshires 4-y-om

Large English Berkshires!
J. G. SNELL & BRO.,
Edmonton, - Ontario.

We are now booking orders for young pigs. Have several litters now, and more to follow in Mar. and April. These are by imported Star One, 558 lbs., 1st prize aged boar, Toronto, 1894; Lord Ross, 1st p. yearling boar, Toronto, 1894; Regalia, 540 lbs. at 15 months old, 1st p. boar under a year, Toronto, 1894; Baron Lee 4th, 602 lbs. at 14 mos. We never had so many good sows to breed from as at present. Write for prices. 2-y-om

SIPRILL & CARROLL, Carholme P. O., Ont.

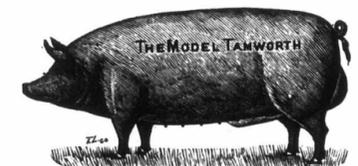
BERKSHIRE SWINE AND LEICESTER SHEEP

We guarantee our stock to be of the best quality. Our Leicesters are bred from the noted stock of Kelly, Whitelaw, and Nichol, and our Berkshires a desirable type. Correspondence solicited. 12-2-y-o

RED TAMWORTH BOARS
Ready for service. Nice young sows due to farrow in March. Younger ones all ages.

Stock First-Class and Registered.
Ayrshire Cattle, either sex, all ages. Prices low.

CALDWELL BROS.,
2-2-y-o Briery Bank Farm, Orchard P. O., Ont.



TAMWORTH SWINE.—I now offer a choice lot of young pigs under twelve months. Those desiring superior stock at reasonable prices should write me before purchasing. My stock are noted prize winners. JOHN BELL, Amber P. O. Shipping at Agincourt, C. P. R. or G. T. R. 10-2-y-o

ISAAC HOLLAND
SPRUCE GROVE FARM,
CULLODEN P. O.
Breeder of Guernsey Cattle and Tamworth Swine. I have for sale a choice two-year-old or a four-year-old Guernsey bull of heavy milking strain. Also young Tamworths, either sex. Correspondence solicited. 25-y-o

R. H. HARDING, Maplevue Farm, THORNDALE, ONT.,
HAS FOR SALE YOUNG STOCK of all ages, from prize-winning Chester White Swine, also Dorset-Horned Sheep, at prices to suit the times. 20-y-om

ONTARIO CENTRAL HERD OF CHESTER WHITES AND DUROC-JERSEYS.



Our Improved Chester White Herd was established eight years ago with first-class animals. Our Duroc-Jersey Herd is of two years' standing. Selection and care have enabled us to lead in both breeds in the show rings of Toronto, London, and Ottawa. Orders placed with us will be attended to with dispatch.
Wm. Butler & Son, Dereham Centre, Ont. 7-y-om

IMPROVED

Chester White and Tamworth Swine

Our Improved Chesters have won more Sweepstakes at large exhibitions than all herds of Chesters combined in the Dominion, including Sweepstakes Sows over all breeds at Fat Stock Show, Guelph, '94. Tamworths are selected from best breeds in England, and winners of Sweepstakes at Fat Stock Show, Guelph and Ottawa, 1894. 20-y-o
These Sows bred for spring trade. Orders booked for spring pig in pairs not akin. Reduced rates by express. Send for price list.
Wm. H. GEORGE & SONS., Crampton, Ont.

Has Upset

the old ideas, and revolutionized cooking—What? **COTTOLENE.** Why? Because it is clean, pure, healthful, economical, and makes the most delicate and delicious food. 5 lbs. of Cottolene equals 7½ lbs. of lard, saving ⅓ the cost. Get the genuine, with trade mark—steer's head in cotton-plant wreath—on every tin. Made only by

The N. K. Fairbank Company,
Wellington and Ann Sts., MONTREAL.

PURE OLD PROCESS

Ground Linseed Oil Meal.

The Best and Cheapest STOCK FOOD in the World!

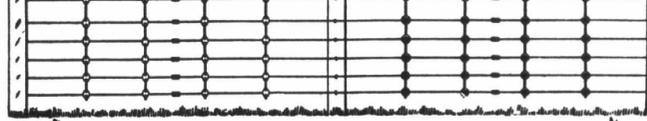
Most SATISFACTORY, because it preserves healthy action at all times.
Most ECONOMICAL, because it fattens the quickest.
Most PROFITABLE, because best conditioned stock are secured.

MANUFACTURED BY THE

NATIONAL LINSEED OIL COMPANY,

Works: West Ganson Street, - BUFFALO, N. Y.

Send for CIRCULARS and PRICES. 12-y-o



No better wire fence built than the Casey Diamond Grip. Just the thing for farmers—neat, strong and durable. Will last a lifetime, barring accidents. Uses only straight wires with so little depression as not to cause the galvanize to crack or peel. If there is a dealer who wants something better to handle than he's had, try it. We also supply the Double Lock

Wire Fence, which is claimed by some to be second to none, the lateral wire of which, as well as the upright stay, being crimped at joints. Our agents build either on premises. Agents wanted everywhere in Canada, to whom sole territory will be allotted. County and Township Rights for sale. Our Gas Pipe Frame Gate takes the lead. No better or cheaper place in the city to get plain or fancy turning done. Call on, when in the city, or address,

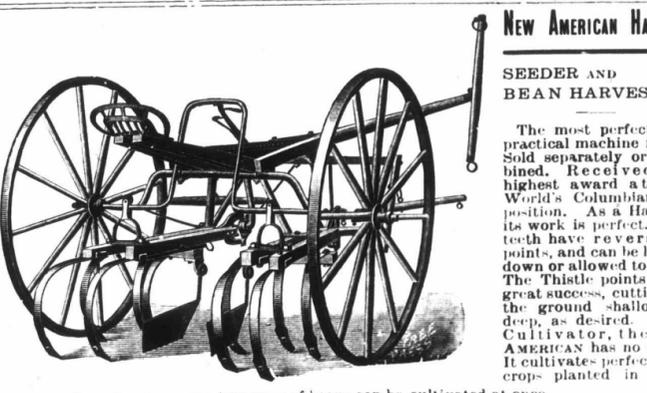
CANADA FENCE COMPANY, Corner Bathurst and Clarence Sts., London, Ontario.
17-y-om

Use:- Queenston:- Cement

FOR BUILDING CONCRETE OR OTHER WALLS,
Cisterns, Stable Floors, Hog Troughs, &c.

Write for Prices and Particulars. When parties use our goods, when necessary we will send a skilled man, at our own cost, to give instructions how to build. FARMERS can thus build their walls and save half the cost.

ISAAC USHER & SONS,
THOROLD, ONT.
13-y-o



NEW AMERICAN HARROW
SEEDER AND BEAN HARVESTER.
The most perfect and practical machine made. Sold separately or combined. Received the highest award at the World's Columbian Exposition. As a Harrow, its work is perfect. The teeth have reversible points, and can be locked down or allowed to float. The Thistle points are a great success, cutting all the ground shallow or deep, as desired. As a Cultivator, the NEW AMERICAN has no equal. It cultivates perfectly all crops planted in rows.
By using the extension arms, two rows of beans can be cultivated at once.
As a Bean Harvester, it is indispensable to bean growers, and is highly recommended by all who have used it. The Bean Harvester is an attachment which is easily put on to the New American after removing the sections. It pulls two rows of beans at once, leaving them in a perfect windrow, and harvesting from twelve to eighteen acres per day. Write for prices and circulars.
11-b-o
AMERICAN HARROW CO.,
DETROIT, MICH., or WINDSOR, ONT.

BOOK TABLE.

Mr. Henry Wade, Secretary of the Dominion Ayrshire Breeders' Association, has sent out Vol. II., new series, containing pedigrees of bulls Nos. 1125-1641; cows, 1601-2499. Appendix—Bulls, a234-a327; cows, a408-a565. The volume also contains arbitration on pedigree of Lady of the Lake, and other information necessary to complete such a volume.

Floriculturists who are especially interested in the culture of a flower which is struggling fairly successfully (some of its admirers think) to rival the rose—the Carnation—would find helpful suggestions in the fourth annual report of the American Carnation Society, whose annual meeting was held at Boston, in February, 1895. It is published by A. T. De La Mare Printing and Publishing Company (Limited), Rhineland Building, New York City.

"Wool Markets and Sheep," is the title of a spicy, bright and modernized shepherd's journal—a consolidation of Wool and Hide Shipper, Chicago, and "Wool, Mutton and Pork," Minneapolis. It is published weekly at 507 Rookery, Chicago, under the management of J. Lewis Draper. This new journal has made a creditable commencement, and purposes keeping up the standard set in the inaugural issue. It is adorned with several illustrations. As its name indicates, commercial reports are made a special feature.

Vol. X., Dominion Shorthorn Herd Book (Mr. Hy. Wade, Secretary), contains pedigrees of bulls Nos. 17111-18966; cows, 23008-24822. It also contains a table of premiums awarded to Canadian Shorthorns at the World's Columbian Exposition, Chicago, 1893. The frontispiece is a beautiful 9x13-inch engraving of J. & W. Russell's eight first-prize-winning Shorthorns at the Columbian. This is a beautiful picture, which graced a page of the September 1st (1894) ADVOCATE. The volume also contains history of Shorthorns, continued from Vol. IX., as well as other matter usually found in records.

The Farmer's Manual and Complete Accountant is a work lately issued by J. T. Nichols & Co., 33 Richmond St., W. Toronto. It contains a new method of penmanship. Its law without a lawyer, business forms and business men, teach many things every one doing business should know. A knowledge of this department may save many troublesome lawsuits. The book also contains an extensive treatise on insects injurious to vegetation; breeding, training, and doctoring horses; how to doctor cattle, sheep, hogs, and poultry, and a complete set of breeders' tables. The work of 230 pages, bound in board, is illustrated throughout with descriptive and helpful cuts for the better understanding of its teachings. The last 44 pages is what is termed the book-keeping department, has its pages of writing paper ruled and headed for the keeping of weather records, account with hired help, dairy accounts, etc.

Vol. VI., of Clydesdale Stud Book, of Canada, comes to us from the Secretary and Editor, Henry Wade, Toronto, besides the pedigrees of stallions Nos. 1531-1789; mares Nos. 1461-1751. It is peculiarly interesting because of the splendid portraits of three noted Clydesdales. The first that of Grey Clyde [1707] 78, imported in 1841 by Archibald Ward, Markham, Ont. This horse was the best in his day, and to him is due much of the fine quality of many of the Canadian-bred Clydes in the neighborhood where he travelled, so great was his propensity. Portraits also appear of the noted horse Queen's Own [1708], illustrated in the ADVOCATE, March, '92, imported Aug., '91, and the property of Graham Bros., Claremont, Ont.; and Bessie Bell [1318], illustrated in the ADVOCATE, April, '92, imported Aug., '92, by Graham Bros., Claremont, and sold to Robt. Davies, Thorncliffe Stock Farm, Todmorden, Ont. The book is complete, and, like former ones, well compiled and bound.

Vol. VI., Part I., Third Series of the Journal of the Royal Agricultural Society of England has reached our table. One of its chief features is a comprehensive paper by Sir John Bennet Lawes and Sir J. Henry Gilbert, entitled "The Feeding of Animals for the Production of Meat, Milk and Manure, and for the Exercise of Force." This valuable and scientific contribution occupies one hundred pages of reliable information, which will be constantly referred to by those who wish to study the scientific aspects of stock feeding. Prof. Brown has a valuable paper on the subject of Glanders. Among the official reports contained are those of the Principal of the Royal Veterinary College, and Dr. Voelcker, the latter on the Feeding Experiments at Woburn. There is a short paper full of helpful hints by Prof. Penberthy, on Joint Diseases of Fowls and other Young Animals; also one on Hardy Fruit Growing in the Tropics, by C. Lee Campbell. The Journal is published quarterly, at 3s. 6d. per quarter. Ernest Clark, Sec., 13 Hanover Square, W. London, Eng. A high standard of excellence is maintained, as heretofore.

"Insect Foes, and How to Destroy Them," is the title of a complete little work just issued by the writer, J. Hayes Panton, M.A., F.G.S., Prof. of Natural History and Zoology, in the Ontario Agricultural College, Guelph. This concise little work of almost 100 pages contains a brief life-history, description, and method of combating, of sixty of the most troublesome insects in the orchard, garden, field, and on live stock. Upon examination we find it to be a very practical and useful work. The writer's chief object in producing it was that it may be used by teachers in rural schools, as an aid to teach agricultural science, the last hour on Friday afternoon, and also that any reader may find most interesting and useful information. The author will send it to any address on receipt of thirty cents in stamps. At this timely season we quote the remedies given for the "Horn-fly": 1. Rub points attacked with fish-oil, to which a little carbolic acid has been added. 2. Apply kerosene emulsion, diluted with twelve parts water. A better emulsion is made by substituting fish-oil for kerosene. 3. Tobacco dust will keep off the insects by dusting it upon the back, tail and neck of the animal, and upon the base of the horns.

HOW TO GET "SUNLIGHT" BOOKS.
Send twelve "Sunlight" Soap wrappers to Lever Bros. (Ltd.), 43 Scott St., Toronto, who will send post-paid a paper-covered book, 159 pages. By leaving the ends of the papers open, it will be for one cent postage. Remember "Sunlight" now sells at six cents per twin bar.

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OHIO IMPROVED CHESTER WHITES.

My herd are imported or bred from imported stock, and have been winners at the leading shows for years. Pigs of all ages (both sexes) for sale. Pairs supplied not akin. Correspondence solicited. Inspection invited.

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We have the greatest prize-winning herd of Duroc-Jerseys in Canada. Our 2 stock boars and several of our brood sows won first prize at the Industrial, Toronto, 1894; also first on young pigs and herd. Pigs of either sex and all ages for sale. Address, **TAPE BROS., Ridgetown, Ont. 20-2-y-om**

IMPROVED SUFFOLK SWINE, THOROUGH-BRED HORSES, DURHAM CATTLE AND SOUTHDOWN SHEEP.

A grand lot of Suffolk Pigs, all ages, for sale at prices to suit the times. **A. FRANK & SONS, The Grange, four miles from Cheltenham Stn., C. P. R. & G. T. R. 2-2-y-om**

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Our herd won all the sweepstakes, diplomas and herd prizes, and 22 out of 26 first prizes, at the three largest fairs in Canada, in 1894. Our herd is headed by Darkness Quality, the winner of the first prize in his class, over 41 entries, at the World's Fair, in Chicago, in 1893. Our stock is large in size, and fine in quality, and are well adapted for the Canadian trade. Young stock for sale at all times. Prices reasonable. Address **15-y-om W. & H. JONES, Mount Elgin, Ont.**

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Our American Stanley Sisal Binder Twine for the season of 1895 is only six cents (6c.) per pound. It is put up in fifty-pound sacks. Price, \$3.00 per sack. If you live in Ontario, and your order reaches \$10, then we will pay the freight to your station. If you live outside of the Province of Ontario, then we make the following freight allowances, according to the size of your order: On \$10-orders we make a three per cent. freight allowance; on \$25-orders, five per cent.; on \$50-orders, seven and a half per cent.; on \$100 orders, ten per cent. freight allowance to all stations outside of Ontario. Our supply is limited. Our price is low. Our twine is first-class. We have handled exactly the same brand for the past six years, and we guarantee the twine to work in every machine. Price, only 6c. per pound for any quantity. Order right now and be sure of getting this splendid twine. Terms: Cash with the order.

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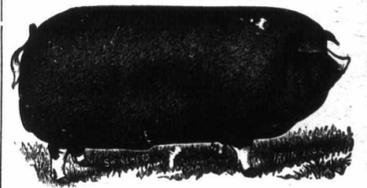
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Stationary, Portable & Semi-Portable
All sizes from 3 to 20 Horse Power

UNEXCELLED in Simplicity, Effective Working Qualities and Durability.
GUARANTEED TO GIVE FULL POWER CLAIMED AND TO BE AS REPRESENTED
Over 2,000 in successful operation.
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Spring pigs ready to ship June 1st. 4 fall boars ready for service; 9 bred sows for August litters. PRICES LOW. Quality Considered

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FOR CHOLERA & ALL OTHER DISEASES
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JOHN J. LENTON, Park Farm, Oshawa, Ont., offers all his breeding fowls in W. S. and G. Wyandottes, and B. P. Rocks, at \$1.00 each. Early chicks for fall shows. Send for catalogue, etc. **22-y-om**

FOR SALE—Silver Wyandottes and Mammoth Pekin Ducks. Eggs at \$1.00 per 11. My strain of S. Wyandottes have won more prizes at our leading shows than all others combined. My Pekin Ducks are mostly imported, and of great size. **J. E. MEYER, Kossuth, Ont. 7-f-o**

ALL MY BREEDING PENS
Containing upwards of fifty prize-winners
FOR SALE. SECOND WEEK IN JUNE. Rocks, Wyandottes, Langhans, Javas, Leghorns, Brahmans, Pekin Ducks, Bronze Turkeys, Pigeons, and Rabbits. Eggs for balance of season, \$1.00 per 13, from all varieties. Write **10-y-om S. LINC, Fort Rouge, Winnipeg.**

FARMERS! Ask your dealer in town for THE "VERA" CARBONATE OF COPPER FUNGICIDE

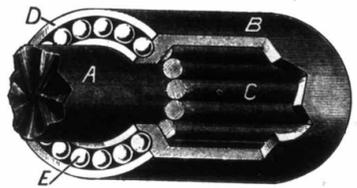
It is ready for use by adding water, and will destroy Apple Scab, Grape Mildew, Etc.

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Galvanized Towers and Wheels The Best in America.

IDEAL SPRAY PUMP, IRON PUMPS, WATER-TANKS, PIPING, &c.



The Ideal Power Mill, with Roller and Ball Bearings, is a Wonder. Send for Circulars, and mention this paper.

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Solid Steel Rail, Single Bead, Great Strength, Neither noisy nor Set Screws, Joint Clamps, Stop and Hanging Hooks all on top, and Perfectly Adjustable.

IT IS MADE FOR EITHER STEEL OR WOOD TRACK

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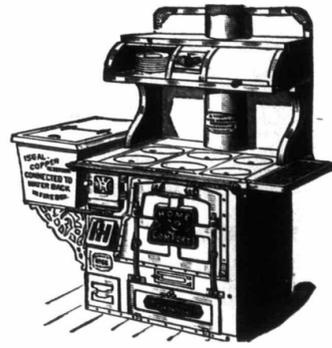
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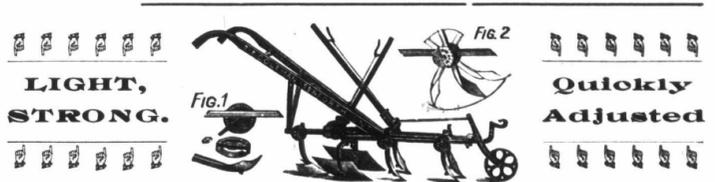


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CARVING AND STEAM TABLES, BROILERS, MALLEABLE WATERBACKS, ETC., ETC. Above Style Family Range is sold only by our Traveling Salesmen from our own wagons at one uniform price throughout Canada and the United States. Made of MALLEABLE IRON and WROUGHT STEEL and will LAST A LIFETIME if properly used. SALES TO JANUARY 1st, 1895, 299,327.

ABOVE HONORS WERE RECEIVED BY WROUGHT IRON RANGE CO., MANUFACTURERS OF Hotel Steel Ranges, Kitchen Outfittings and "Home Comfort" Hot-Air Steel Furnaces. OFFICES, SALESROOMS AND FACTORIES, 70 to 76 PEARL STREET, TORONTO, ONTARIO, and Washington Avenue, 19th to 20th Streets, ST. LOUIS MO., U. S. A. Founded 1864. Paid up Capital, \$1,000,000. 7-y-om

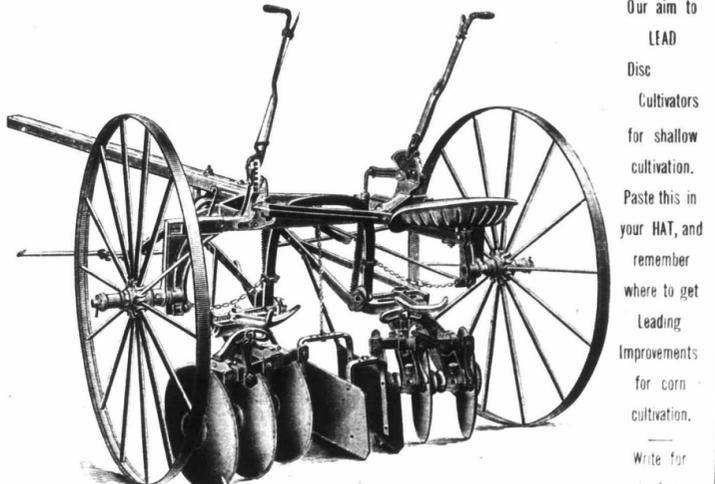
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LIGHT, STRONG. Quickly Adjusted. We aim to make an implement which will adjust itself to all the varying conditions of soil in the quickest possible manner, and with the least manipulation. We accomplish this by our new patented SHANK FASTENER OR CLAMP. The change is made by loosening one nut half a turn, by which operation the point can be shifted to any conceivable position. This Scuffler is, what many of our customers have already called it, "A WORLD BEATER." It is strong, durable, and of the best material and workmanship. If your local agent does not supply you, write direct to the estate of

T. T. GOLEMAN, Seaforth, Ont. 5-om

The March of Progress



THOM'S IMPLEMENT WORKS Established 1875. WATFORD, ONT. 10-a-o

STOCK GOSSIP.

Owing to his retiring from farming, Mr. Robt. Garnham, of Guysboro, offers for sale his registered milking Shorthorn herd—a good useful lot. The young stock are bred from Ajax = 12698—, a bull bred by Ephraim Monk, Tilsonburg; sired by =Sodus=; dam Cherry =3880—. A good yearling bull by Ajax, dam Oley = 19288—, is offered; large and straight. As Mr. Garnham is anxious to sell, this stock will be disposed of at a bargain.

G. W. Clemons, St. George:—Have sold the bull calf advertised in the ADVOCATE to Mr. Samuel Lomon, Lynden, Ont., who is making a start in pure-breeds. This is a very straight, square, and handsome calf, sired by Artis Aggie Prince, Netherland Blanche. This winning heifer, Netherland Blanche. This heifer calved at twenty-four months old, and is giving, nine months after calving, from 25 to 30 pounds milk per day. She is a daughter of Mr. R. S. Stevenson's fine bull, Royal Canadian Netherland. My cattle are coming through quarantine in fine shape. I send you copy of a change of advertisement, to replace the now running, and calling particular attention to the blood of DeKol 2nd, winner of the \$300 cup offered by the Holstein-Friesian Register for the largest official record made during the past year.

MR. CAVERLY'S POLAND CHINAS & BERKSHIRES A few miles north of Sterling, and near Sine P. O., is Enterprise Stock Farm, where Mr. Caverly, the genial proprietor, is engaged in breeding a good class of Poland-China and Berkshire swine, for the accommodation of which he has recently erected a neat brick piggery, with all the modern improvements, which would indicate that breeding operations will be carried on on a more extensive scale than in the past; and as a good foundation is being laid, we may expect to hear favorable reports of this herd in the future. On entering the pens, we were first shown the Poland-China stock boar Royal =631—, a very useful boar sired by Black Peter =276—, dam Brighton Maid =622—. Next came the sow White Nose =790—, by Se'dom Found; dam White Nose =5028—, a very nice young sow which Mr. Caverly intends to fit for the fairs of 1895. Sir Colin 2nd =2660— heads the Berkshire herd, a very even hog of great length and depth, weighing over 700 pounds when in fit; sired by Sir Colin =2659—, dam Maropita =2998—. He has done himself credit in the show ring, and is proving himself a grand sire. Grand Sentinel =3064— is another grand yearling boar of Geo. Green's breeding that has been on the herd, by Queen's Own =2613—, dam Mountain Bell =1885—. Among the sows Maropita =2998— is a good one, possessing great length, deep sides, well-sprung ribs, level back, and thick, fleshy hams, and stands squarely on short, flinty legs. She was got by the celebrated imported boar Enterprise =1378—, and from the imported sow Countess of Cricklade =721—. She was nursing a litter of nice young pigs at the time of our visit, by Darby, a boar of J. C. Snell's breeding, Joan =3070— is another extra good breeding sow, bred by J. G. Snell & Bro.; also sired by Enterprise, dam Heather Bloom =2790—. We were next shown Countess Queen =3446—, a good sow bred by Geo. Green, of Fairview; by Longrange 1878 (imp), dam Newport Maid =2449—. This sow was also nursing a strong litter by Grand Sentinel. A number of good young sows were seen in adjoining pens, due to farrow in August. Mr. Caverly is getting a boar from Mr. J. C. Snell to head the herd, it being the object of Mr. Caverly to mate so as to produce a Berkshire which will meet the requirements of the packers.

SHORTHORNS, COTSWOLDS AND BERKSHIRES AT ALLANDALE STOCK FARM.

The stock farm of F. Bonnycastle & Sons is located some three miles from Campbellford, on the C. P. R. It consists of two hundred acres of good grain and grazing lands; well sheltered, and watered by never-failing brooks. The breeding of Shorthorns has been a specialty with these gentlemen for many years past, and more recently Cotswolds and Berkshires have been added to the stock, and are proving a very paying investment. The Shorthorns number some twenty-five head; the original stock being of Bates' breeding, and in selecting the foundation stock, nothing but a first-class article was purchased, the price being but a secondary consideration. Mr. Bonnycastle informed us that since the establishment of the herd it has been their aim to produce a good milking strain, and at the same time retain as much as possible of the seeding qualities; and in order to attain these results special attention has been given to selection and mating. Walcott Duke =17789— heads the herd; he is a bull of many excellent points, bred by David Birrell, Greenwood, Ont., and by Premier Earl (imp) =1281—; dam Minnie March =7222—. Two fine two-year-old bulls, Comet 12th and Comet 13th, of Bates & Cruickshank blood, were seen; they were by Comet 4th =12066—, their dams being Anchovy 6th =15222—, and Anchovy 8th =18590—. These bulls are in fine thrifty condition, and have plenty of size, substance and bone, and good quality, giving every evidence of making useful bulls; color, red and roan. We also saw a very nice straight yearling bull from Walcott Duke, the present stock bull, and a fine milking cow. The cows are good milkers and of the best breeding, and without doubt a very useful herd.

The flock of Cotswolds consists of some seventy or eighty head of very good quality, from which representatives are always to be seen at the township and county fairs of that district, and which are usually successful in carrying off a fair percentage of the honors. The Berkshires were first selected from the herds of Birrell & Johnston, and were from the celebrated Sally family. The boars used have been selected from the well-known herds of J. C. Snell, Edmonton, and C. T. Garbutt, Claremont. The stock boar, Bonny =3209—, and a good imp. boar, are being used on the herd very successfully, judging from the young litters seen. A number of good sows, and younger pigs were seen. The three sows, Queen of Spades =3322—, Blue Belle 7th =3233—, and Bonny Lass 2681, had fine, strong litters, nicely marked and good quality, at the time of our visit. Messrs. Bonnycastle's card will be seen in our advertising columns, and visitors at Allandale Farm may rest assured that they will always be welcome and well entertained.

BREEDERS' DIRECTORY.

Cards up to six line space inserted under this heading, one issue a month, \$3 per line per annum; every issue, \$6 per line. Payable in advance.

A. ELLIOTT, Pond Mills, Ont.—Tamworth Pigs, Oxford Sheep, and sweepstake strain of Bronze Turkeys for sale. 20-2-y-om

ALEX. HUME, Burnbrae, Ontario, Importer and Breeder of Ayrshire cattle and Yorkshire hogs. 6-2-y

ALF. BROWN, Bethel, Ont., breeder of Ayrshire Cattle, Shropshire Sheep and Leghorn and Dorking Fowl. 14-2-y

BLACKWOOD & McCALLUM, Martintown, Ont., breeders of registered Clydesdales, Shropshires and Yorkshires. 16-2-y

D. G. HANMER & SON, Mt. Vernon, Ont., Importers and Breeders of high-class Shropshire Sheep and Berkshire Pigs. 2-2-y-om

FRED. S. WETHERALL, Compton, P. Q., breeder of Jersey Cattle and Shropshire Sheep. 18-2-y

H. I. ELLIOTT, Danville, P. Q., breeder of Scotch Shorthorns & Southdown sheep

HAVING made some additions to our breeding pen, we will be able, in the season, to offer Bronze Turkey Eggs for sitting; price, \$2.50 for 13—stock as good as can be got. **JAS. TOLTON**, WALKERTON, ONT. 6-2-y-om

JOHN LAIDLAW, Crosslee Farm, Wilton Grove P. O., Ont., breeder and importer of Border Leicester Sheep. Satisfaction guaranteed. 4-2-y

JOS. CAIRNS, Camlachie, Ont., Breeder of Pure-bred Chester White Swine. 4-y

J. P. PHIN, THE GRANGE, HESPELER, ONT. Breeding and Importing SHROPSHIRE SHEEP a specialty. 22

MATTHEW HOWSON, Ashgrove P. O., Ont., breeder of Cleveland Bay Carriage-Horses. 12-2-y

ROBERT MARSH, Lorridge Farm, Richmond Hill, Ont. Importer and Breeder of SOUTHDOWN SHEEP. 14-y

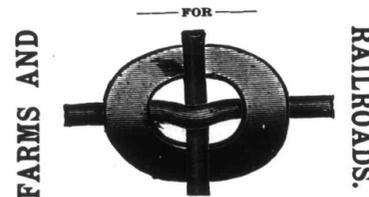
THOMAS IRVING, North Georgetown, Que., breeder of Clydesdale Horses and Ayrshire Cattle. 8-2-y

WM. STEWART, JR. & SON, Menie, Ont., Ayrshire Cattle and Berkshire Pigs. 22-2-y-om

W. H. BEATTIE, Wilton Grove, importer and breeder of Shropshire Sheep. A choice lot of Collie Dogs and White Holland Turkeys. 16-2-y

WM. SMITH, M.P., Columbus, Ont., breeder and importer of Clydesdale Horses, Shorthorn Cattle, and Cotswold Sheep. Stock for sale. Terms and prices liberal. 2-2-y

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Agents Wanted in Every Township.

Send for Circulars and particulars.

THE LOCKED-WIRE FENCE COMPANY
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An Authority Says:—“Eighty per cent. of all the Baking Powders sold are Alum Powders.”

Such being the case, purchasers should bear in mind that

MCLAREN'S GENUINE

COOK'S FRIEND

is guaranteed free from that and all other injurious ingredients.

Proprietor's name and Trade Mark on every package.

7-1-om

UN-NERVED, TIRED
People and invalids will find in **CAMPBELL'S QUININE WINE** A pleasant restorative and appetizer. Pure and wholesome, it has stood the test of years. Prepared only by K. CAMPBELL & Co., Beware of Imitations. MONTREAL.

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THE Very Best

Place in Canada for obtaining a thorough business education. Students assisted to positions every week. Write for circulars. Fall term, Tuesday, September 3rd. 17-o **SHAW & ELLIOTT**, Principals.

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MIGHT as well expect to catch birds by applying salt to their little tails, as to expect to make good cheese or butter with cheap, impure, common salt. It is now an axiom among progressive dairymen that

It Pays to Use the Best Salt.

Windsor Salt

Is known to be the purest and most wholesome salt that can be found anywhere.

WINDSOR SALT WORKS,
WINDSOR, ONT.
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USE RAMSAY'S

Barn and Roof PAINTS.

WINNIPEG DISTRICT FARM LANDS FOR SALE.

A FEW good Farms, improved and unimproved, from 7 to 20 miles from the city. Easy Terms. Prices to suit the times. Now is your time to secure a good Farm near the best market in the Province. Farmers are realizing that mixed farming is the only farming that will pay. Buy land where you can sell all you can produce—for cash.

Apply to **G. J. MAULSON,**
195 Lombard St., 8-m WINNIPEG, MAN.

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FOR HORSES.
Colic Draughts, 50c.; \$5.00 per dozen bottles.
Fever Draughts, 50c.; 5.00 " " "
White Oils, 50c.; 5.00 " " "
Wound Liniment, 50c.; 5.00 " " "
Blister Ointment, 50c.; 5.00 " pots.
Cond'n Powders, 50c.; 5.00 " tins.
FOR CATTLE.
Purgative Drenches, 25c.; \$3 per dozen packets.
Milk Fever " 25c.; 3 " "
Cleansing " 25c.; 3 " "
Mammitis Lotion, 50c.; 5 " bottles.
White Oils (strong), 50c.; 5 " "
Hoof-Rot Liniment, 50c.; 5 " "
These veterinary medicines are guaranteed scientific remedies for horses and cattle. A case containing one dozen remedies, assorted to suit the purchaser; price, \$5.00. Prepared by **DR. WM. MOLE, M. R. C. V. S.,**
7-e-om 260 Adelaide St., TORONTO, ONT.

ONTARIO VETERINARY COLLEGE

Temperance Street, Toronto.
The most successful Veterinary Institution in America. All experienced Teachers. Session begins October 17th. Apply to the principal, **PROF. SMITH, V.S.,** Edin., Toronto, Can. 18-2-y

BOYS FOR FARM HELP

The managers of Dr. Barnardo's Homes will be glad to receive applications from farmers or others for the boys whom it is proposed to send out from England in several parties during the coming season. All the young immigrants will have passed through a period of training in the English Homes, and will be carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars, as to the terms and conditions upon which the boys are placed, may be obtained on application to **MR. ALFRED H. OWEN,** Agent, Dr. Barnardo's Homes, 214 Farley Ave., Toronto. 4-y-o

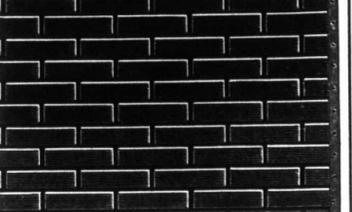
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Farmers!

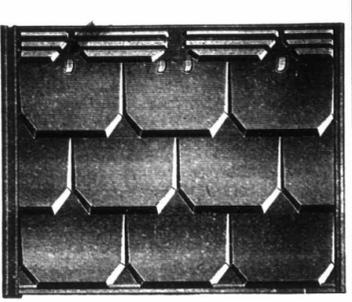
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SOFA, - CHAIR - AND - BED - SPRINGS
A LARGE STOCK ALWAYS ON HAND.
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They produce large crops of wheat of superior quality. Try our Fertilizer for FALL WHEAT, which is especially manufactured for that class of crops. Terms easy. Prices low.

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