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Vol. XXXVI.

LONDON, ONT., AND WINNIPEG, MAN., JUNE 1, 1901.

No. 527

EDITORIAL.

"A Horse! A Horse!! My Kingdom for a Horse!!!"

CANADIAN HORSES FOR BRITISH REMOUNTS.



ITHOUT HORSES the armies of the King would have waged a losing warfare in South Africa. They are as essential to-day as when on Bosworth's bloody field Richard III. bid

his kingdom for a charger, crying out in despair, "Bind up my wounds -- Give me another horse." Men may surmise and speculate as to the probable outcome of certain events, but who would have guessed that Canadian agriculture would have greatly benefited for years to come by the sad contest that has raged so long between Britons and Boers? Last year when horses were needed, and less than 4,000 were taken from Canada, besides those going with our own contingents, and over 70,000 from the American Union, the reason for such a discrimination began to be enquired into, for everybody ought to know that Canada is noted for the excellence of all the classes of stock she produces. Now, the facts, as we understand them, are that some years ago a report was made to the motherland regarding Canada's horse stock which gave the impression that we had a very limited number of animals suitable for remount purposes. This information went on record in the British War Office, and when the demand for remounts arose the red-tape records were looked up and showed Canada as not a suitable field for the supply. During the last year, however, our horses, like our men, in comparison with others on the battle-field, gave an excellent account of themselves, which fact led to several vigorous protests such as those from the Premier of Ontario and the Northwest, and an investigation of the actual conditions of our horse supply. The way Canada has forged to the fore in Imperial relations made it good policy for Imperial statesmen to see that if Canada could supply the right stamp of horses, then they should have the preference. Lt.-Col. H. S. Dent, Remount Officer for Canada, besides purchasing 3,785 horses from us last year, learned and reported that we had thousands more suitable for remount purposes. Lord Strathcona also took an earnest interest on our behalf in urging our claims upon the War Office, so that Canada has now begun to receive the attention she deserves in these matters. In fact, the old impression that we have only a frozen country is rapidly changing to a recognition of our grand possibilities in the matters of soil, climate, vegetation and live stock, and judicious breeders for the production of a class of remount horses that cannot be surpassed anywhere in the world. Not only have we all the distinctive characteristics that go to make up a first-rate remount producing country, but our ports, eastern and western, are actually nearer several distant British possessions than those of England or the United States. By actual measurement on a geographical globe, it will be recognized that Halifax, N. S., is nearer Cape Town than is Liverpool or any United States port, and that Vancouver is actually nearer China than is any United States port, so that we may rest assured that Canada will be more and more looked upon as a desirable source of remounts for the British army when war-horses are required in those quarters, not to mention our proximity to England, where even in times of peace a great numher of army horses are always needed.

The question of remount stations in Canada has already occupied considerable public attention, but these are commencing to establish themselves through the private enterprise of individual horse dealers in sections where considerable numbers of suitable horses can be picked up. When this subject was first mooted, some months ago, the absurd proposal was made that the Dominion Government should establish depots, and go into the business of selecting and selling horses, but practical men of good judgment saw its needlessness, and its dangers, and that it would be a serious expense to the Government, and of no advantage to the farmer. The results already achieved indicate the correctness of this view. Col. Dent is now making a tour of Canada, stopping upon fixed dates at prominent towns and cities. Before the end of May, he, with Dr. Fraser, his British veterinary associate, had visited London, Paris, Toronto, Belleville, Napanee, Ottawa, Montreal, and several other points where he has been offered horses collected throughout the country from which to make selections. Following these, a visit to the Northwest Territories was arranged. In April they visited London, and chose about 80 per cent. of about 100 offered, and it was from among them the military horses portrayed on succeeding pages of this issue as

AN OBJECT LESSON IN ARMY HORSES

were photographed by one of our editorial staff. who on this and a subsequent occasion was accorded every opportunity requisite to become familiar with the principles and plan pursued by Col. Dent, so that the facts in regard to this question might be brought before the attention of Canadian farmers generally. On May 15th and 16th, Col. Dent and party returned to London, and again accepted about 80 per cent., or 200 out of some 250 offered. These horses were purchased from the country on all sides of London, some coming from as far west as Chatham, Ridgetown, etc. They were chiefly purchased by Mr. Jas. McCartney, of Thamesford, but J. D. O'Neil, V. S., London, also gathered up some 50 or 60 head. The Western Fair horse-barns admirably served the purpose of the remount station, as they offered facility for housing, feeding, watering, and testing the horses. The horses were arriving at this station for a week or more before the remount officer arrived, during which time they were put into selling form, by shoeing when necessary, clipping the legs, trimming out the ears, throat, flanks, etc., so as to give them a smart, breedy appearance. It was difficult to learn the breeding of many of the horses offered, but a large proportion of those selected for the saddle gave evidence of Thoroughbred parentage, while many good ones appeared in conformation and gait to have sprung from Standard-bred trotting sires. In passing through the stables, the horses reminded one of those sometimes seen in a high-class livery barn, but their limbs were free from puffs and blemishes, and none of them gray in color. They were a really good lot of what are recognized as roadsters, and were equally appropriate for the

THE FAVORED TYPE

is short in the back, deep in the chest and quarters, strong in the stifles and arms, and strong below the knee. They ranged from stoutly-built 14.2-hands ponies weighing about 950 pounds to general purpose farm horses up to 15.3 hands and weighing about 1,200 pounds. A large majority were midway between these extremes, weighing from 1,000 to 1,075 pounds, and classed as mounted-infantry or cavalry horses. The infantry class may range in height from 14.2 to 15.2 hands, the cavalry from 15.1 to 15.2, and the artillery horses or gunners from 15.1 to 15.3 hands high. They ranged in age from five to nine years, but a few well-matured good four-yearolds were accepted. The chief difference between cavalry and infantry horses, apart from height, consists in the former being a stouter, more powerful horse, fitted to carry greater weights in man and accoutrements, etc., than the infantry horse, which is lighter and may be lower-down or of the cob or

It was interesting to witness the horses being examined, for acceptance or rejection, and may be described as follows: A candidate for inspection is led on to a platform of planks lying flat on the ground. He is then viewed from the side and rear by the remount and veterinary officers. If he shows no marked defects, such as weak knees, knuckled fetlocks, running at the nose, or other weaknesses, the Colonel puts the measure over him, and if he passes thus far, the chances for going through are good, as most of those turned down failed to pass this stage. Tests for soundness were conducted by the veterinary officer, who examined the legs, especially the fore legs below the knees, the eyes, and mouth. They were then jogged a few rods away and back once or more, then suddenly backed up, wheeled round to the right, then to the left, and, if satisfactory, sent to the saddle. The next and final test was for their wind, and consisted of about an eighth of a mile dash at the gallop. It was the great exception for a horse to fail here. They were now accepted, and branded on the front hoofs with numbers and letters to indicate to which class they belong.

The prices paid farmers for these horses varied from about \$85 to \$120, many of them ranging from \$90 to \$100, a better figure than such horses have been bringing for some years past. The prices, in turn, paid by the remount officer were a sufficient advance on the foregoing to recoup the dealers for their expenses and leave a fair margin to the good. The dealers had to bear the expenses of collecting, feeding, and fitting, which meant a large outlay in the locality, and delivering the animals in Montreal, at which point the British War Depart-

ment assumed charge.

Much regret was expressed that so many good horses of this type, more especially the mares, were being taken from the country, but the practical man says it is all right, as they leave more room for others and good money behind, and, better than that, a stimulus to horse-breeders to wake up to the importance of greater care in the breeding and rearing of horse stock. The selection of remounts has had an educational effect in every locality where it has been carried on. A day or so observing these operations is in many respects equal to the study of a well-conducted horse show, and of more practical value in so far as this particular class of horses is concerned.

Amendments to the Animal Contagious Diseases Act.

Among the acts passed at the late session of the Dominion Parliament was one amending section 7 of the Animal Contagious Diseases Act, prohibiting the disposal, under a penalty as high as \$200 fine, of the meat, skin, hide, horns, hoof or any part of animals affected with any contagious or infectious disease. The amendment authorizes the Minister to permit by regulation the sale of such portions where he is satisfied that the disease in question cannot be so communicated. A further amendment. provides, regarding the meat to be sold for human food, that it must be certified by any lawfully authorized health authority as not affected with such disease.

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THE WILLIAM WELD COMPANY (LIMITED), LONDON, CANADA

Importance of Cultivation.

Occasionally a spring and summer season is experienced in which rain falls sufficiently often and in sufficient quantity to keep the farm crops growing steadily, the root and corn and other hoed crops requiring only such cultivation as is necessary to keep the weeds under subjection, while the crops develop and mature satisfactorily with little extra labor. Such seasons, however, are exceptional, and in many sections, in perhaps five out of six years, there are times in the summer season when drought prevails for periods of from two weeks to two months, with very little relief in the way of showers. This being the case, it is not wise to wait for possible rains, which are uncertain, and prudence exhorts to keeping the weeder, horse hoe or cultivator going at least every two weeks in the corn and root crops, and also in orchard and garden, for the purpose of conserving for the use of the growing crops what moisture has been stored up in the land in the spring, and preventing its evaporation and escape into the atmosphere without first having fulfilled its proper mission of feeding the crops.

To put off from day to day the cultivating of the crop in the hope that it will rain, may, and probably will in five out of six seasons, prove to have been a mistake, as the longer it is delayed or neglected the more will the crop be checked in its growth and the harvest yield lessened, making all the difference between a profitable and paying crop and an unprofitable and inferior one. The great value of surface cultivation comes from the conser-

vation of moisture by arresting evaporation, which goes on rapidly when a crustlike surface is allowed to form and remain. The object should be to make the water, which seeks to escape by evaporation, pass through the plants, and as the elements of fertility in the soil can only be used by the plants in a state of solution, it is readily seen how important it is that sufficient moisture be maintained in the land to dissolve these elements and carry them up through the roots, stalks and leaves, that they may be appropriated and used by the growing crops to best advantage. It is well known that where the land is mulched by the use of straw or rubbish of any kind, or by being covered with boards or rails, the moisture has been kept in. It is on the same principle that moisture is retained where a soil mulch is formed by keeping the surface frequently stirred, and the drier and looser this mulch, the more effective it is, as it then successfully breaks what is called the capillary connection between the air and the under soil, having the effect of interposing what is practically a foreign body between the atmosphere and the damp earth below. So long as this mulch remains loose it serves the purpose intended, but when left unmoved for a considerable time it gets closer and less effective, and especially so after a shower, when a crust is again liable to form. It is essential, then, that as soon after a shower as the land is dry enough to work well, it should be stirred and loosened again, as by this means the largest possible portion of the moisture will be secured to the growing crop. The cultivation for this purpose need not be more than three inches deep, but should be that depth for best results. In a dry time, cultivation should be repeated every ten days,



PAIR OF CAVALRY HORSES.

ed by Lt.-Col. Dent, at London, Ont., for the Britiny. Sire, German Coach, Graf Bremer. Dam of one, trotting-bred Highland Boy; dam of other, Black Hawk Morgan. Height, about 15.2 hands. Weight, about 1,000 lbs. each. Price, \$280, the pair.

as nearly as practicable, and experience has taught that there is no special advantage in more frequent working of the soil. For the corn crop, a stroke of the harrow before or just when the shoots are appearing will generally do great good by killing young weeds, admitting the air and forming the earth mulch, and the harrowing may sometimes be advantageously repeated until the plants are six inches high. The first cultivatings, while the roots have not extended far, may be four or five inches deep, but as the crop grows older, the cultivation should be shallower, else many root fibers may be cut off and the development of the crop hindered.

This question of the retaining of moisture in the land does not seem to be as generally understood and appreciated as its importance warrants, judging from the fields one sees in travelling through the country, plowed and left in unbroken furrows for days, or it may be weeks, to dry out and bake under the action of the sun and wind, instead of being rolled and harrowed immediately after being plowed, or within a day or two, and harrowed or cultivated after each rain to keep the moisture in the land to assist in decomposing weeds, grasses or roots of these which may have been plowed down, and to break up the soil. rendering it fine, and, hence, in the best condition to feed the coming crop when sown. The man who wrote "tillage is manure" was practically about right, as it has largely the same effect.

Failures in Beet Sugar Enterprises.

While the successful development of the sugarbeet industry has been in many respects phenomenal, there have been failures both in the field and in the factory, and if close heed be not given to the lessons of the past, some of these are likely to be repeated. We are satisfied that in perhaps no other industry is a strict and intelligent attention to every detail more imperative. We are struck with this point in looking over a recent volumne on this subject, to which reference is elsewhere made in this issue, and which will repay perusal. The author Mr. Hamburger), in reviewing the history of the industry in the United States, refers also to the efforts made some years ago to establish factories in the Dominion of Canada. He points out that, notwithstanding the fact that the Government en. couraged the industry by subsidy, the factories established early in the '80's at Farnham and Berthierville, in the Province of Quebec, proved financial failures. The Berthierville plant was removed to Eddy, New Mexico, in 1896, and the Farnham plant. the following year, to Rome, N. Y. The same causes which had led to failures in the United States-viz., lack of capital, indisposition of farmers to raise beets, and mismanagement of the factories—brought about the same results in Canada. He states that the question of bounties has been agitated more or less in almost every State in which beets may be raised, but with the exception of Minnesota, New York, Pennsylvania, and Washington, no other State has a bounty law, and so far as the foregoing four States are concerned, both the amount of the bounty and the time during which it is to be paid are limited. The fact that Minnesota has but one factory, New York only two, and Pennsylvania none, would seem to show that a bounty law is, after all, not the important factor which some have contended. It seems pretty well conceded that in general there is no need of artificially fostering the industry, though bounty-hunters are still carrying on their agitation in many States. In fact, the real progress of the industry is thought to have been hindered by the campaign for bounties. The European export bounty system has become a notorious source of trouble, both for its intended beneficiaries and its dispensers, and for several years strenuous efforts have been made to abolish the system, but, the wrong course having been taken, it is not so easy to abandon or correct it, even after evil consequences are recognized, for the reason that the State has pledged itself to certain obligations, upon the strength of which the industries, to some extent, depend. Mr. Hamburger, however, concedes that so long as the bounty law which gives so much per pound to the beet-grower and sugar manufacturer is meant as an inducement to encourage home production and give the industry a fair start, with properly-safeguarded provisions to attain that end only, then the dangers which otherwise lurk in it may be obviated. The Ontario Government would appear to have been guided upon this principle in the temporary bounty system which they have adopted. We are convinced that the permanent establishment of the industry must depend not upon national legislation or state aid, either of which at best can only be temporary, but upon the joint efforts of the beet-grower and the manufacturer. In the former's field the sugar is formed and accumulated, and in the factory it is extracted and put into marketable form. The basis of a good paying factory is a sufficiently large supply of beets of the highest possible quality and purity to suit the capacity of the factory, an abundant supply of pure water, an adequate supply of fuel (coal, coke, etc.),a supply of limestone of suitable quality, up-to-date machinery, labor at reasonable figures, good transportation facilities, a market in which to dispose of the product and its by-products, and last, but not least, ample capital.

Summer Fair Dates.

| Edmonton Summer Fair July 1 to 3 |
|---------------------------------------|
| CalgaryJuly 10 to 13 |
| YorktonJuly 15 |
| Wawanesa July 18 |
| Carman July 18 and 19 |
| CarberryJuly 18 and 19 |
| Virden July 18 and 19 |
| Portage la Prairie July 23 to 25 |
| BrandonJuly 23 to 26 |
| MinnedosaJuly 30 |
| Winnipeg Industrial July 29 to Aug. 3 |
| Oak River |
| Neepawa |
| Qu'AppelleAug. 7 and 8 |
| Moosomin Aug. 9 |
| |
| Regina |
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STOCK.

Cull Closely or Lose Money!

[FROM OUR MANITOBA AND WESTERN EDITION.]

The doctrine of live-stock improvement needs many, many more adherents and followers than it numbers at present, judged from the excerpt below, taken from the N. B. Agriculturist:

"The folly of bringing out as entire stock male animals of second-rate merit, even though they be



ARTILLERY HORSES.

Selected by Lt.-Col. Dent, at London," Ont., for the British Army, 'Sire, Shire stallion. Dams, roadster mares. Height, about 15.3 hands. Weight, about 1,200 lbs. Price, \$280, the pair.

fully pedigreed, is well exemplified by the experience of a West Fifeshire occupying proprietor. At a recent bull sale this gentleman, who is a great believer in the weigh bridge as a means of ascertaining the value of cattle, bought two bull stirks, one a Polled Angus and the other a Shorthorn. For the former, the price paid worked out to 24s. 6d. per live cwt., and for the Shorthorn, the price worked out at only 18s. per live cwt. Had the same animals been brought out as steers, they would probably have realized at least 6s. per live cwt. more than they did. They were bought for the purpose of being steered and fed along with Irish stirks which had been bought at 30s, per live cwt. A good many of the other bulls sold at the same sale were picked up by an enterprising West Lothian feeder at prices ranging up to 27s. 6d. per live cwt. These are not isolated cases, for, at the recent Shorthorn bull sale at Perth, quite a number of fully pedigreed yearling bulls were sold at prices under 10 guineas each, and one enterprising feeder, whom the people of Perthshire have delighted to honor, bought a lot of pedigreed yearling bulls at an average of 8 guineas each, as being the cheapest 'stores' he could buy. No breeder who understands his business will use for breeding purposes sires of second- or third-rate merit, and the result is that male animals of that sort have to be sold at less than the price of ordinary stores, their 'lang pedigree' counting for nothing

when individul men is conspicuous by As might be expected, if the Old Countryman is such a flagrant offender, what can we expect of the Canadian breeder? If the stockers recently brought into Manitoba from the East, en route for the ranges, are a sample of Ontario live stock, to what a pass have things come in live-stock breeding away down East. Miserable misfits, lath-like and chuckle-headed, of various parentages, in which the dairy bull has evidently had a hand, they are foreordained to be failures as producers of high quality beef. Canners they may make, but the results from such will barely pay the transportation charges. Dwarfed from birth, imperfectly nourished on whey or skim milk, it is doubtful if the little Eastern runts will show any benefit from the nutritious grass of the Western hills. A few years ago Texas steers were a byword among cattlemen; to-day, owing to the persistent use of bulls of good individuality, procured sometimes at what seemed at the time high prices, the Texas product holds its own with the best. The investor in these dairy-bred runts is certain to lose money on his investment, and it may be the means of putting him permanently out of the business. Trade once had and then lost is hard to regain, so that to our Western brother we say, "Eschew the dairy-bred Eastern stocker as you would the evil one!" The poor stocker can be bought far more cheaply than the good one, but it will not return anything like the profit of the well-bred animal of correct beef type. Manitoba has at the present time a good stocker trade with the West and South, and while the finishing of the product is to be commended and preferred, no effort must be spared to keep up the quality of our stockers, so that "what we have we'll hold." To keep up that quality, only the best bulls must be used by the farmers. Pure-bred bulls of the good beef type can be had at prices ranging from \$100 to \$150, and will undoubtely prove a good investment. The breeder of pure breds will need to be relentless in his culling, as he is the fount of live-stock improvement. Once allow the spring to become befouled, the stream is bound to be impure. Disastrous results are bound to follow if the breeder of pedigreed stock lets his culls go forth to perpetuate their kind. Breed from the best, and from them only.

Our Scottish Letter.

The show season is on us in full force, and the greatest of the west country events—that at Ayr—is now a thing of the past. Besides, two excellent county shows have been held, at Balloch and Rothesay, for the counties of Dumbarton and Bute, respectively, and we have quite a good time in other directions. A notable sale of Ayrshires has taken place in Dumfriesshire, where no fewer than 118 head from the very old herd of Tower, Sanquhar, owned by the representatives of the late Mr. Hyslop, were brought to the hammer, and the useful average of £11 1s. 7d. was realized. The 38 cows made an average of £15 16s. 5d. The gratifying feature of the show season has been the scale and commercial dairying qualities of the cattle exhibited. We have clearly got away from the miserable period of smallteated, weak-framed cows, into the time of big, good, roomy, commercial cattle, such as anyone might be proud to have in his byre. The champion at Ayr was a great five-year old cow named Queen of Hillhouse, bred and owned by Mr. John Drennan, Hillhouse, Galston. This magnificent cow was first last year as cow in milk, and only missed the championship. This year there is nothing to touch her, and it is noteworthy at the Dumbarton Show the best animal on the ground was a cow bred by Mr. Drennan, and very much after the same stamp as Queen. The Bute champion cow, Lady Finlay of Ardyne, owned by Mr. John McAlister, Ardyne, Toward, Argyllshire, was second at Ayr in her class to Queen of Hillhouse, and runs her close enough. She is a large-framed, good cow, with tight vessel and commercial teats. Another grand cow of the year is the leading winner in the cow-in-calf class, Mr. Wm. Howie's White Rose II. of Burnhouses, also in Galston parish. She was champion at the Highland last year, and first this year at Kilmarnock, Galston, Ayr, and Glasgow. Up to plenty size, with a splendid outline and great frame, this is the kind of cow the breed wants. The Ayr Derby, in which over 50 three-year-old queys (entered when they are calves) compete, is the great contest of the breed, and the quality of the exhibits seen in it is generally regarded as a good index to the state of the breed as a whole. This year's Derby was regarded as a good average. There have been some better, and there have also been many worse, but amongst the prizewinners this year were several very notable animals. Mr. Wm. Howie won with a white quey named Gipsy III., and Messrs. A. & W. Old Graitney, Gretna, the winners last year with Senorita, were second with Dewdrop I. The favorite, however, outside, was third—Mr. Blackwood's Bright Lady, from Rottenrow, Hurlford. This quey is got by a bull named Prince Alexander, which bred grand stock. He is sire of several prizewinners, and leaves his stock with good tight essels, commercial teats, and a frame which can carry the vessel. Bright Lady was placed first at Galston, four days after Ayr, with Gipsy III. second. She has been purchased by Mr. James Kilpatrick, Craigie Mains, Craigie, who is determined to have as good Ayrshires as he has Clydesdales. the sights of Ayr Show was what is called the Parish competition. Five females are shown in one group out of each parish, and this year Craigie parish won, the group being composed of five three-year-olds. Three of them were owned by Messrs. M. & A. Hunter, Adamton, Craigie, and two by Mr. Blackwood. The Adamton three were by a noted bull, Flora's Chief, whose dam was the invincible cow, Flora of Burnhouses, and the other two were by Prince Alexander. This group of three-year-olds beat Mr. Drennan's five, which included the champion cow, Queen, and were placed third, the intervening group being Mr. Wm. Howie's, from the same parish, Galston. It included White Rose II., Gipsy III., and other three.

Mr. Howie bred another great quey, named Mary II. of Burnhouses, which he sold before the shows to Mr. Andrew Mitchell, Barcheskie, for £100. She was first at Castle-Douglas, Kilmarnock, and Glasgow, but was beaten at Ayr, standing fourth in the Derby, and at Galston also standing back. She is uncalved, and has been sold at a profit to Dr.

Douglas, M. P.
She will be calved in good time for the Royal and the Highland, and will take some beating then.
Mr. James Howie, Hillhouse, Galston, is the leading exhibitor this year with bulls, his two-year-old, Not Likely, being the best of his age and not easily turned by animals of any age.

Bute has long been famous for its Ayrshires, and good cattle were on exhibition this year. The chief

exhibitors are three brothers: Mr. James Mc. Alister, Meikle-Kilmony; Mr. Robert McAlister, Midascog, and Mr. John McAlister, Ardyne, Toward, across the water from Bute; also other two brothers: Mr. Hugh Duncan, Laugalchorad, and Mr. Charles Duncan, Little-Kilmony. The cattle put into the ring by these gentlemen would take a deal of beating, and no one has exhausted the Ayrshire breeding area who does not visit Bute. The best group at the Dumbartonshire Show was owned by Captain Fergusson-Buchanan, of Auchentorlie, who has just returned from the front. He is an enthusiast in agriculture.

Glasgow has got its great twentieth century exhibition opened, and, judging by the first week, it is going to be a great and notable success. One of the best features in it is the Canadian building, in which are displayed all that is best worthy of imitation in the industry of the Dominion. The Russian building is a first-class affair, and its contents are a revelation. The dream that Russia is a barbarous country, in which nothing modern is to be found, may be safely laid to rest after this display. The building itself is a splendid one, and it and the Canadian quite easily take the lead for equipment and adornment. The Agricultural Hall contains exhibits of much interest to agriculture, especially the models of the great works, in Chili, of the Nitrate Company, the Stassfurt Potash Syndicate in Germany, and the Sulphate of Ammonia Syndicate. The buildings designated the Model Farm are, perhaps, not so much a model farm as a well-laid-out model of what is usually seen in farm buildings and around a steading in this country. The whole show is well worth a visit, and it is understood the Atlantic companies are to offer special inducements to visitors to come across.

This effete old country is making strenuous efforts to keep up with her younger rivals across seas. In the west we have now got a fully-equipped agricultural college, with farm and experiment station. The first session of the new college has just closed, and everything promises fair for the future. The students who have entered for the various diplomas have come well through the trial, and in the east a movement is on foot to start a similar institution. There is plenty room for all such, and soon there will be three great teaching and demonstration centers in agriculture in Scotland. The struggle to obtain this has been long and arduous, and the supineness of our farmers and county authorities has been amusing. Principal Wright, in Glasgow, has not been easily daunted, and he has now had his reward. One of the best schools of this kind in Great Britain is the Agricultural School at Aspatria, in Cumberland. It is a private venture and has no subsidies, yet it turns out some very good work. The present principal is Mr. Smith Hill, and a smart man he proves himself to be. No school did better than Aspatria, under the old regime, in sending forward students who took the diplomas at the Royal Agricultural Society of England and the Highland & Agricultural Society of Scotland. There is now only one national diploma in agriculture, the examination is a stiff one, and has to be taken in two stages. It has just passed for this year, and the work done by the students was highly creditable. Those who pass are entitled to write N. D. A. after their names.

"Scotland Yet."

Likes the Collie.

The William Weld Co., Limited:

GENTLEMEN,—Received from Mr. McEwen my collie pup. He is a little beauty—a lot better than I expected. Thanking you for same, I remain,
Yours truly, J. F. WEBBER.
"Oak Grove Farm," Bothwell Co., Ont.

W. B. JOHNSTON, Simcoe Co., Ont., writes:—"I commenced taking the FARMER'S ADVOCATE many years ago, but at one time gave it up, not having



CAVALRY HORSES.

Selected by Lt.-Col. Dent, at London, Ont., for the British Army. Mare on right, Thoroughbred. Three others by Thoroughbred sire. Height, 15.1 to 15.2 hands. Weight, about 1,000 lbs. each. Price, \$140 each.

leisure to read, but felt that I had lost my best friend. Three years ago I began taking it again, and could not think of doing without it. It is the best dollar's worth of reading any farmer can get."

Wet and cold has been the weather record for much of Ontario and the Eastern Provinces during the latter half of May.

Sheep and Sheep Breeding.

BY A. E. MANSELL.

I will name six things to keep in view which are I will name six things to keep in view which are essential to a practical and lasting success. They are (1) constitution, (2) form, (3) flesh, (4) wool, (5) character, (6) management. These things may appear simple and easy, but anyone is a marvel of practicability who can always keep these objects in the forefront when breeding pedigree animals. The pedigree-stock breeder is a fastidious man, and in buying sires he will have to give away some points buying sires he will have to give away some points, and there is always a strong temptation to neglect that which is useful and essential, and to place undue importance upon the fads and fashions of the day, especially upon what is most taking in the show-yard. I do not mean to throw cold water upon fashion; on the other hand, I would say, be in the fashion as much as you can, and try to take your part in leading it, but remember that fashion changes; even in the useful attributes of a sheep, therefore, do not be so much a slave to it as to sacrifice any of the essential qualities that in your better judgment will tend to the ultimate good and

usefulness of the breed you have taken up.

Changes of Fashion.—We all know how much fashion has changed in our animals, especially in character and general appearance, the last thirty to fifty years. As an example I will mention bone as an important instance in this respect. The fine bone which was the ideal of Bakewell was generally favored by the last generation of breeders of sheep and cattle as denoting lightness of offal, but the fashion has gradually but surely changed in this respect. I have not named hope as an execution this respect. I have not named bone as an essential, but still it has always been thought by practical men to be such an indication of the most practical and useful qualities that it has been in the past, and is at the present time, viewed

by a large proportion of breeders as of the utmost importance, the only difference being that the fine bone which was sought after in the past is now regarded as a fault. I have no extreme views about bone; I like to have plenty, and especially the right sort, but I would not always discard an animal for breeding because of small bone. I strongly believe, however, that you must not breed so as to get fine bone all through your flock, or you will lose strength of constitution and lose flocks and also tution and lean flesh; and, also, strong bone is required, to stand the forcing treatment of the pres-

ent day.

Breeders' views in this respect. therefore, have been completely reversed, and this, in conjunction with many other examples that could be named, shows that everything that is not absolutely an essential, but only an indication to an essential, may be open to question. The moral of what I am now saying is, do not treat fashions as if they would never change, and do not consider the accepted indications of even the most useful and essential qualities as infallible, but never depart from what is really, and will always remain, an essential

ce of Small Signs to Breeders.-I would not, however, underrate the importance of indicators, because even very small signs are important in breeding. Every inch of an animal, from head

to tail, and from top to toe, is an indicator of its value, and it is those who, after close inspection, and also at a distance, can read those signs truly that are the best judges. Often quite small marks on animals are greatly prized, as showing a strain of blood going back forty or fifty years. I will now of blood going back forty or fifty years. I will now briefly call attention to the six objects I have put before you. Space will not allow me to go into the multitude of points and indications that are bound up with these, and, of course, I am addressing those who are working upon different breeds, and attributes that are valued in some breeds of sheep are not cared for in others. "Constitution": I begin with constitution, because this is the foundation of everything. However perfect in most respects an animal is all in malors without a relative to the constitution. everything. However perfect in most respects an animal is, all is useless without a robust constitution. All that indicates a good constitution should be sought after. Having this in view, capacity of chest is absolutely requisite. You must either have width or depth of chest, but to secure a robust and hardy animal you should have a combination of the two, with a deep shoulder, big girth, and good under line. You must have these points so as to ensure plenty of room for the heart and lungs, and other internal organs. I will only add at the present time, in connection with constitution, a wide

loin and strong scragg.

What is "Form"!—The Leicester and other longwools excel in their top form, but the shortwool breeders, although aiming at the same perfection of top form, also require more depth of carcass and under line. The ideal form must always vary to some extent in different breeds, because all have not the same standard of excellence, for this is governed by locality, climate, treatment, and the purpose for which they are principally bred. To give an extreme example, I would say that the wide-chested sheep that are forced to such early

maturity in some districts would not be suitable to maturity in some districts would not be suitable to take the place of the deeper and narrower, but agile and hardy sheep that are bred on the hills. The first thing to be considered in regard to form is the legs; have a leg at each corner, and put on aright, with the shoulders thrown back into the ribs; if you can satisfy yourself as far as this, you have secured the foundation of a correct form all have secured the foundation of a correct form all through. If you have the legs and shoulders as they should be, you can expect to see a straight spine, well-sprung ribs, with good chest, barrel, and under line, sufficient width behind, and a good

There will always be difference of opinion in regard to form; for example, some are most decided that the neck cannot be too short; others, and I am at one with the latter, think that a moderately long neck is desirable, if it is strong enough. Of course, a long, thin neck is bad and most unsightly, and fatal in the show-yard, whereas a neck which is thin but short will often pass muster, although such a neck indicates weakness of constitution, and a deficiency of lean flesh and muscle, quite as much, if not more, than the long, thin neck. I believe that if you keep on breeding from very short necks you will lose strength in your flock, and lean flesh, and at the same time the prolific breeding qualities of your ewes.

There is also a further difference of opinion in

There is also a further difference of opinion in egard to the neck. I have been told that Jonas Webb was partial to the bottle-neck, and no doubt he had good reasons, but I will not enlarge upon this, as it is not the object of this paper to go into the hundred and one points connected with the essentials I have named, and I have only mentioned this one thing in order to show the vastness of the

considerations a breeder has to keep in view.

Flesh and Wool.—The flesh appeals to most of

FARMERS ADVOCATE

CAVALRY HORSE, CREMORNE (See Gossip, page 378.)

us very often, and all when they have their feet under the table think they are excellent judges of mutton, but it is the business of the sheep-breeder to form his judgment when the sheep is alive. With practice he will accomplish this by the hand. Speaking very briefly, the flesh must handle firm and springy to denote quality and leanness; it must be laid all over the frame in proper proportion; and here the form of the animal comes in again, for to have the flesh put on evenly you must have symmetry. There should be good develop-ment where the joints are most valuable. The leg of mutton is especially important as being the best joint, as well as denoting leanness of flesh all through the carcass, and we all know the unsightly appearance of a dressed carcass when there is the long, thin shank, with no plumpness in the twist.

It is extremely difficult to say anything about wool in a few words, especially when embracing all our British breeds. There is so much variation in what is sought after in this respect. I will chiefly confine myself to urging the great importance in all breeds of this essential. As a shortwool man I like a dense, even fleece, which when opened shows a pink, healthy skin. Such a fleece is always valuable, and also as good a sign as you can have of the right sort of flesh. The skin is valued as an indicator of the wool and the carcass.

The Importance of Character.—This is where the seeing eye comes in, and judging this by points is quite impossible, but character can be better discussed by the fanciers of each breed among themselves. How shall I, then, deal with this in a few words, without attempting description? Character gives the pedigree, as it were, without seeing the record. It sums up the whole breeding of the animal as the same word does for mankind, although with a long and good pedigree there are always

plenty of flaws. As with mankind, however, a good pedigree (I do not mean an aristocratic one, but a worthy one of long maintenance) is by far the best guarantee of good character, so in animals you must not expect to have satisfactory character without there has been careful and correct breed. ing maintained for a long time. To the superficial observer the difference is not much, but such observers will not have the insight to select sires. Nothing is more requisite to success in breeding

than this insight.

Management.—I could say a great deal upon this subject, but if I could say all I knew it would be very little compared with what I have to learn. It very little compared with what I have to learn. It is well to remember that the very best animals can easily be spoilt if badly managed. I would like to say, however, to all arable farmers, give this branch of your business all the care and thought you can, for sheep are the best crop you can produce, and by proper management sheep are the best propers of growing all farm groups and on some best means of growing all farm crops, and on some land the only way of securing crops. I would also add, give them plenty of attention, put on an extra hand if required, and you will be repaid the expense over and over again. Do not neglect them at harvest, or at any other time, and be most careful to avoid foot-rot. If well attended to and properly managed, you can largely increase the number of your sheep, only remembering that sheep, but especially lambs, will not thrive on stale pastures; the more change they have the better. If you wish to keep them thickly on the ground, and have them healthy and free from injurious parasites, you must

possible on the arable land. In conclusion, I would say that perhaps young breeders may think I have made the difficulties of breeding appear great, but do not be disheartened;

grow crops for them, and keep them as much as

the greatest pleasure of farming is breeding. Besides, you may make the breeding of valuable pedigree stock a much simpler and safer undertaking, if you are not too fond of experimenting on fresh lines. I quite think that anyone who has the ambition to take a leading part in altering and improving a breed must be bold in his selection of sires; in other words, he must experiment. In order to secure some quality in a marked degree, a sire must be bought that has this quality very pronounced, but to accomplish this you may have to put up with some tad qualities, and, of course, bad points in an impressive sire will cause you future trouble. If definite objects in breeding are to be attained, it is better to put up with a serious fault in a sire than to have one that is free from anything very objectionable, but still only a mediocre animal. It is well, however, for the type of our distinct breeds that the majority of breeders are so careful about the characteristics of the breed they have taken up, and that they work upon lines and principles that have been well proved.

Purchase of Sires.—If you wish

to avoid the disappointments that follow on too much experimenting, I would advise the buying of sires with as few faults as possible, but especially keep in view all qualities that you think to be essential. Also, if you wish to avoid uncertainty, I would strongly

advise you not to get too much admixture of blood. would say, select one or two flocks that you consider the best from which to buy, and then always select the best sires you can from these flocks; if you do so you will not be far behind, and you may sometimes be quite as good as the flock from which you select. By doing this you will have as much change of blood as the flocks from which you buy. Remember, there is uncertainty in change of blood; new blood is, in fact, always an experiment. I am quite of opinion that no one can keep on breeding impressive and valuable sires with too much outcross in breeding. I know a great number of people are very much afraid of breeding-in one family; they think the constitution will be weakened. I quite agree that you must not sacrifice constitution for anything, but this is the test to depend upon in the same of the s pend upon; if you are maintaining and improving the constitution of your sheep, you know that you are perfectly safe, but this test has not always been kept in view, and the constitution has often been sacrificed both in sheep and cattle by following fashion in blood regardless of constitution. Breed ing-in concentrates and intensifies qualities (and here is the value of sires so bred), and you may keep strength of constitution so persistently in view as to intensify the robustness of your animals. The object of this paper is to put the value of all the points and attributes of a sheep in their true proportion.

I have endeavored to focus the attention of the young breeder to the essential points in breeding, and to impress upon him the absolute necessity of always keeping these points in view. The beauty of your animals is of the utmost importance, and there are reasons for all the fashions, and what may appear the fads and fancies of the day; therefore, you will be out of it if you disregard them, but do n judg man consi

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do not let fastidiousness turn you from what you judge to be a remarkable and valuable sire. Of course, I am principally addressing the pedigree man; the ordinary breeder is free from the onus of considering the minute characteristics of a breed.

On What Lines will the Best Shorthorns of the Future be Bred?

BY S. F. LOCKRIDGE, GREENCASTLE, IND. What line of procedure the future breeder of Shorthorns may adopt is, of course, very much a matter of speculation, but it is fair to suppose that, while he will readily accept new and approved ideas, he will not be indifferent to the observations and experiences of the best breeders of the past. It is questionable, indeed, if better Shorthorns ever existed than were bred during the first half of the last century. The records are somewhat meager concerning the operations of what may be termed the formative period of the breed as we know it today, yet there is sufficient evidence to show that the early breeders were not hampered by the great variety of fads and crazes that have come to vex the soul of the breeder of the present day. Starting as they did without records or any knowledge of the breeding of their cattle except that derived from private registers and traditional sources, line breeding was, of course, an unknown term for many years, although they did engage in the practice of interbreeding, in some instances from very close affinities. To-day the question of in-and-in breeding is a debatable one, and in all probability will con tinue to be so for many years to come. There is no question but that valuable results have been derived

from that system of breeding, and it is equally apparent that injurious effects have in some cases followed a too close adherence to that practice. The early breeders, as I have said, in some instances bred together animals of the closest relationship. The case of Favorite (252) has often been referred to. It is said that he was bred to his daughters and granddaughters, and on to the fifth generation, and that, too, without any serious results so far as history or tradition

give any account.

There are two ways of accounting for this. In the first place, the men of that day who advocated in-and-in breeding were of more than ordinary intelligence, and it is not presumable that they practiced it indiscriminately and in all cases, but that they used the ut-most care in the selection of the animals they desired to submit to the experiment, mating only those that possessed the necessary requisites of constitution, vigor, and general conformation. In the sec-ond place, the Shorthorns of that time, we are told, were large and coarse, loosely made, inclined to be thin-fleshed, and often poor feeders. Now it is admitted, I believe, that in-and-in breeding has a tendency to reduce the size, to refine the form generally, and to increase the disposition toward early maturity. How long this practice can be followed without impairing the useful qualities in the animal is a question not easily answered.

The Collings and other early breeders of Shorthorns bred from very close connections without

apparent injury to their cattle, and Bakewell, with the Longhorns, probably to a greater extent than any other breeder of his day, or since. As intimated, however, the character of the cattle of that early period justified his practice to an extent that would not be permissible at this late day, when Shorthorns have reached the highest degree of refinement, it seems, compatible with a good constitution and general usefulness. In fact, I think most of you will agree with the opinion that in some cases the limit has been exceeded, and that there are Short-horns to-day that show the effects of too close breeding in an excessive fineness of bone, lack of scale, and indication of delicacy throughout the whole animal. It is evident that animals of this character cannot be depended on to produce a healthy and robust progeny. If this is true, is it not time to call a halt, and as practical, common-sense men, having the best interests of the breed at heart, advise a return to safer methods and a more intelligent and liberal selection of the material for use in the herd? The most successful breeders of the past did not hesitate, when the occasion demanded, to introduce new blood into their herds. Thomas Bates believed he possessed the purest Shorthorns in existence in his Duchess tribe, and yet, after confining himself to the use of their blood through his sires for a number of generations found the necessity of going outside of his herd for a fresh infusion through the bull, Belvedere.

The question we should ask ourselves to-day is, Are we exercising a proper degree of independence in our operations, or are we allowing the preference for this or that line of family to influence us against our better judgment and common sense? selecting a sire, should we not choose him because he possesses in a superior degree the qualities that we desire to secure in the progeny, rather than be

influenced altogether by the fact that he is of a particular strain of blood that happens at the time to be of the prevailing fashion, although he may be deficient in individual qualities? In other words, shall we select a sire for no other reason than that his ancestors were famous in the hands of a man who had the genius to make and keep them so while he lived, when, possibly, their descendants in other hands have not maintained the family reputation? For that is the sum and substance of the whole matter. It is unfortunate, I think, that too many breeders continue to worship at the shrine of their early love long after the source of inspiration has

lost its power It is not that we should refuse to use a sire that is line bred, or even in and in bred, if he possesses the qualities that every one is looking for in the the qualities that every one is looking for in the head of his herd. On the contrary, such an animal would, in my estimation, be invaluable as a sire, because the fact that his blood is concentrated only the more certainly insures the perpetuation of those good qualities in his offspring. But, on the other hand, if possessed of inferior or indifferent qualities, have the come research be equally as potent in he will for the same reason be equally as potent in the transmission of those bad qualities; and therein lies the danger and the necessity for the exercise of the greatest care and judgment in selection. There have been many intensely bred animals that were noted as producers of excellent stock, not, I take it, because of the consanguinity of the sires and dams in the make-up of their pedigrees, but because of the superior individual qualities of all, or nearly all, the animals composing the line ancestry.

The successful breeder of the future will, in my

humble judgment, be a firm believer in the value of pedigree, but he will insist that it be accompanied by unquestionable proof that the characteristics of the ancestors were such as to insure the perpetu-

and brain are gone, and some disciple of the deand brain are gone, and some disciple of the departed great one, seeing the necessity for further reinforcement, goes for a change of blood, although the wisdom of the course is seen in better individuality, better vigor and constitution, he is met at once with the charge of treason, and the market value of the offspring is lowered two-thirds.

value of the offspring is lowered two-thirds.

To my view the future is bright with promise for every breeder of Shorthorns who is at all worthy of his great vocation. Civilization is extending its domain to every nook and corner of the habitable globe, offering new outlets and making new markets for the distribution of our surplus products.

Not only in our even yet unoccupied tarritory and Not only in our own yet unoccupied territory and the territories of the republics to the south, but in the territories of the republics to the south, but in the islands of the seas just now throwing off the sway of barbarism, are vast fields awaiting the occupancy of the future breeder. And just beyond, on the other side of the Yellow Sea, lies the great empire of China, with its four million square miles of territory and its 400,000,000 people, once a sealed book to all except the followers of Confucius, but soon, if we can read the signs of the times correctly, to receive the impress of a newer and better civilizato receive the impress of a newer and better civiliza-tion, with all that the term implies. And when that regenerating process begins, you may be sure the Shorthorn will be found, as always in every situation of a similar nature, foremost in the great work of improvement of his kind, proving himself in all respects worthy of his noble lineage and the best traditions.

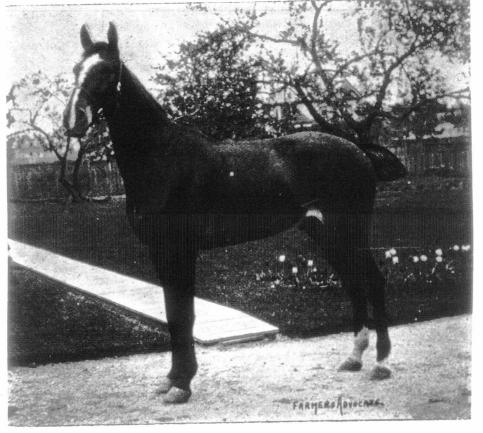


In traveling through the country we notice that nearly every farmer has a number of hogs, and just now small ones seem to be very plentiful. The high

now small ones seem to be very plentiful. The high price is perhaps some encouragement, but this cannot long continue, as they are rapidly becoming more plentiful, and then, when the price is low one must be experienced to make them pay. The first essential in hograising is to have a good pen to keep them in. One of the best pens is made from cement concrete as it is most durable, and is crete, as it is most durable, and is also warmer in winter and cooler in summer than any other. Hogs should not be allowed to sleep on cement, however, but should have a place made of plank above the a place made of plank above the floor, and this should be kept well bedded. The hog itself is next most important, and in order to get the best price we must grow what the market demands. The Yorkshire is one of the best, as it produces those long sides and fine hams which meet with ready sale in British markets. Whatever the hogs are, they should be well bred, for, like other stock, the poor breed is the hardest to make money with. In many cases around here the grain which has been fed to a load of hogs would have brought more if it had been sold. This should not be, and people should give this branch more study in order to feed profitably and to the best advantage. The feeding plan is a very tage. The feeding plan is a very important feature, and should not be neglected. When the pigs are first weaned I feed them five times a day, and only on light food, such as milk, shorts and oat chop. Many young hogs are fed corn, which is too heating and fatten-ing, and they soon become stunt-

ed, and then no one can make them pay.
Many claim that corn is the greatest crop to
raise for hogs. It is the best to raise, as it does not take so much from the soil as other grains, but barley and oats are also necessary in hog-raising. When feeding corn it should be well ground and mixed thoroughly with roots or with other chop. I never feed any corn until the hogs are two months old, and then only a little at a time. Corn should never form the entire ration. Hogs should have a small yard to take exercise in, and they should have free access to this for at least one hour each day. Never feed them more than they will eat up clean, and always be regular in feeding them if you wish to obtain good results.

J. R. B. Norfolk Co., Ont.



SADDLE HORSE, FALKIRK, (See Gossip, page 378.

ation of the good qualities in the offspring. He will not refuse to introduce into the herd sires bred from close affinities, provided they possess in an unqualified degree the qualities already referred to, but he will resolutely reject all that do not measure up to that standard. On the other hand, I believe that the breeder of the future will not be hampered by the fact that the material that he selects is not line bred, but that he will unhesitatingly make use of miscellaneously bred animals, always conditioned upon the fact, however, that the converging strains are from the herds of men known and acknowledged to have been distinguished and reputable as breeders in their several ways. And in so doing he will but follow the precedents left him

by the greatest breeders of the past.

I have used the term "miscellaneously bred" because it is the common way of expressing the mating of animals of different families or strains of blood; but to my mind it is a misnomer, and in its general application has been given too broad an inerpretation altogether, conveying the impression of the crossing of distinct breeds, rather than of animals having a common origin and carrying more or less percentage of the same blood, either in the direct or through collateral lines. All our families of Shorthorns were of miscellaneously bred origin, and after they had been subjected to a course of close breeding long enough to establish a type and become known as a distinct family were reinforced and renewed by the infusion of extraneous or new blood, as I have endeavored to show. Not one of the great families, by whomsoever bred, but was subjected to this treatment to a greater or less degree. The fact that the cross of new blood was made by the hand of the master breeder was all that was necessary to make it acceptable to the votaries of fashion. Yet when the supervising hand

A Prolific Flock.

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

It Stands the Test.

P. P. FOWLER, Shefford Co., Que.: - "During the past 28 years that I have been a subscriber to the FARMER'S ADVOCATE, I have learned much from its pages, and with confidence rely on what its pages contain. I admire the way you deal with any matter of a questionable character. Wishing you every success.

An Official Inspector for Western Ontario.

Dr. J. H. Tennant, V. S., of London, Ont., has been appointed an Official Veterinary Inspector of the Dominion Department of Agriculture, with authority to apply the tuberculin test and issue the necessary certificates required to accompany cattle exported to the United States. This will prove a very great convenience to the large number of breeders west of Toronto whose herds are so frequently drawn upon by American buyers. Attention was several times called, through these columns, to the vexatious delays to which breeders were subjected with the previous limited staff, most of whom were located at eastern points. The Department is, therefore, to be commended on the appointment of Dr. Tennant. All expenses in connection with the testing of cattle for export will be borne by the Department. Any parties desiring to have their cattle tested for export should notify the Department, and, on receipt of such notification, instructions will be at once sent to Dr. Tennant.

How a Bunch of 1,700-lb. Cattle were Fed.

To the Editor FARMER'S ADVOCATE: In answer to your letter, I give you the following particulars: Eight steers of Shorthorn breeding were purchased by Mr. Isaac Groff, from a gentleman near Ailsa Craig, Ont., for me last fall. They were shipped in on 1st of November, and stabled on arrival. The eight animals were put into one stall arranged for eight head. The animals were three and four years old when purchased. I cannot give any particulars of their earlier history, as the animals were purchased for me according to what my choice of feeding steers should be. I started feeding them upon a mixture of hay, bran and chopped oats three times a day for nearly three weeks, and when the animals were brought into such condition that I felt satisfied that a change of feed was desirable, I fed them from that time on with a mixture prepared as follows: Into a large box I put chaff on bottom, and added pulped turnips with a little salt, and ground flaxseed, alternately in layers, and prepared this a meal ahead, at meal time each animal being fed a scoop-shovel full of this mixture, together with chop. The chop consisted of oats, black barley, and a small quantity of peas, and was fed a graduated ration, the largest allowance being a gallon and a half to each head. The flaxseed I used was pure ground flaxseed, not oil cake, about 200 lbs. being fed in the six months to the eight head. Proper attention was paid to the ventilation and cleanliness of the stable, and all the straw that they possibly could use was given The animals were clipped them for bedding. shortly after being stabled, and every attention was paid to the condition of their skin. They were let out to water twice a day, having to go one-eighth of a mile to reach it, which gave them a half mile of exercise each day. You can understand by what I have mentioned that the ration fed was so graduated from time to time as I considered best for them, giving the allowance herein mentioned as the largest portion given at any time. They were allowed all the hay they could eat (mixed timothy and clover). I fed them six months, within a few days, and the average gain was 331 lbs. The heaviest steer weighed 1,820 lbs. when sold, and gained nearly 100 lbs. more than the others.

Waterloo Co., Ont. GEO. H. BAUMAN.

[Note.—The eight cattle above referred to averaged 1,702 lbs. each, and were pronounced by good judges to be the best lot seen on Toronto market for many years. - ED.]

Anthrax, and Vaccination for Blackleg or Quarter III.

A couple of enquiries received recently, regarding the above diseases, suggest the propriety of some further reference to the subject in the FARM-ER'S ADVOCATE. Without dealing with the different types mentioned, anthrax and symptomatic anthrax or blackleg-both fatal in their character it may be noted that they are among the oldest of cattle scourges, being communicated by germs. In discussing blackleg before the last annual meeting of the Kansas State Board of Agriculture, Dr. John R. Mohler, of the U. S. Bureau of Animal Industry, stated that the microbe usually gains entrance into the system through punctured wounds made by briars or stubble, and develops rapidly. causing the familiar dark hemorrhagic swellings. the animal usually dying in about twenty-four hours. The swollen parts contain millions of spores, which, if not destroyed, are scattered by dogs, wolves, buzzards and crows over great areas, be-

coming permanently located in the soil, where they retain their fatal properties for many years. The virus is most potent when received from a diseased animal still living or only recently dead. In passing, we might mention that a writer in the English Live Stock Journal cautioned stockmen against bleeding a beast dying of blackleg, as the fatal bacilli were thus liberated. Great care should be taken to prevent the escape of either blood or mucus upon the land. Dr. Mohler, in the address to which we have referred, recommended as the safest and most satisfactory disposal of the carcass to destroy it by fire, placing it on a few logs with faggots above, pouring over all a quart or so of coal oil, and then setting all ablaze. Owing to the difficulty of eradicating the germs from pasture, he recommends the protection of the animals in affected localities by vaccination, whereby the system is made immune. A minute amount of attenuated or artificially-weakened blackleg virus is injected into the system, usually on the shoulder or neck immediately in front of the shoulder, whereby a mild and clinically unrecognizable case of the disease is produced. The virus is obtained from animals that have died from blackleg, by cutting into strips parts of affected muscles and drying them in the air. When perfectly dry, these are pulverized, mixed with water to form a paste, smeared in a thin layer on flat dishes, placed in an oven and heated for six hours, at a temperature approaching that of boiling water. The paste becomes a hard crust, which is pulverized and sifted, and measured into packets containing from ten to twenty-five doses. vaccine, as it is called, must be thoroughly tested so as to ensure its being neither too strong nor too

In Kansas alone, some 67,259 head have been vaccinated, and the results have been most gratifying, the annual loss being reduced from ten head out of every hundred to only one head out of every hundred and ninety-four. The immunity from one vaccination usually lasts from one year to eighteen months. In Canada we have had the material furnished in the form of blackleg vaccine, for injection, and "blacklegine," in the form of an impregnated cord.

By way of further caution on the subject, Dr. Jas. Law mentioned, in discussing bacillar anthrax, that eating the flesh of animals killed while suffering has often conveyed the disease, despite cooking. Fifteen thousand of the inhabitants of San Domingo once perished in six weeks from this cause, and a whole family was once poisoned in Aberdeenshire, The Tartars perish in great numbers com eating anthrax horses

Prof. F. C. Harrison, Bacteriological Department of the Ontario Agricultural College, writes

ment of the Untario Agricultural Conege, writes us as follows regarding the above subject:

"The two diseases—anthrax, or splenic fever, and symptomatic anthrax, or blackleg—are entirely distinct, being caused by different germs, giving rise to different symptoms and producing different symptoms are supported by the symptoms and producing different symptoms are supported by the symptoms are suppo pathological effects. A comparison may be drawn by brief reference to the following table, which summarizes the chief points of each:

| Various names, | ANTHRAX. Splenic fever, charbon. | SYMPTOMATIC ANTHRAX. Quarter evil, black quarter, blackleg. Called by the Germans, Rauschbrand, from Rauschen, to crackle. |
|-------------------|--|--|
| Causal agent. | Bacillus anthracis. These germs are eas | Bacillus anthracis symptomatici. |
| | Oxygen necessary for growth. Forms no gas. | Grows best in an atmosphere of hydrogen, or in absence of oxygen. Forms gas, hence the crackling noise under skin of affected animal. Actively motile. |
| Lesions, | Spleen enlarged, dark colored, and soft. Liver often with cloudy swelling. Capillaries filled with the organism. | Emphysematous swelling of muscular and subcutaneous tissues of the leg and quarter, accompanied by the formation of gases with strong odor. On section the muscles and tissue are salurated with bloody serum, and dark, almost black, in color. |

"Hence, it will be seen that the two diseases, like the two organisms, are easily separated; in fact, it is much more difficult to separate symptomatic anthrax from malignant ordema than the former from anthrax.

E. B. PARKER, of Quebec Province, writes that during the past year he has derived so much benefit from reading the Farmer's Advocate that he will never be able to do without it again. The hints on general farming and stock-raising he found particularly valuable.

Bogus Bidding Exposed.

The Guardian, Charlottetown, P. E. I., in its issue of May 10th, reporting the proceedings of the Island Legislature, states that Mr. Mathieson asked the Commissioner of Agriculture if the Shorthorn bull recently purchased by the Government in Ontario was bought at auction. The Commissioner replied: The animal was not purchased at auction, but was bought at private sale for \$350. He was afterwards offered at auction, to see the real value of the animal, and it was demonstrated beyond doubt that the animal is a valuable one, as the Government were offered \$25 more than was paid for it." Mr. Mathieson "wanted to know why the statement was made in the stock farm report that the bull was purchased at Ottawa at a sale. Why was the was purchased at Ottawa at a sale. Why was the animal set up at auction? Was it for an honest urpose? As a matter of fact, there is no record

that there was a valid bid."

This is the bull that was officially reported as having been sold at the Government sale at Ottawa on the 6th of March last for \$505. In the printed rules, or terms and conditions, governing the sale was the following: "There shall be no puffing or by-bidding by the owner of the animal or anyone authorized by him. Statutory declaration may be requested from any buyer or seller that any purchase or sale is bona fide, and that there has been no by-bidding or puffing in connection therewith. We presume this was not what the Minister of Agriculture was thinking about when, in his opening speech at the Guelph sale, he remarked that what was needed to make these sales a success was to establish confidence.

Deception never pays. It is sure to be found out sooner or later. Honesty is the best principle as well as the best policy.

FARM.

The House Cellar.

It is highly important that every farmhouse have a good cellar for the preservation of perishable food products and for sanitation. It is used as a storage for vegetables, fruit, meats, eggs, butter, etc., for a longer or shorter period, even from autumn till summer in the case of potatoes and the like. Yet how many poor cellars there are to be found throughout the country, many of them dark, ill-ventilated excavations, with decaying wooden floors, and very little chance of getting sunlight into them! They are often the habitat of mice and rats, which, when once well introduced, are difficult to eliminate except by a general renovation and removal of floors, etc. Rats sometimes prove a blessing in disguise in compelling the renewing of cellar walls and floors, and having the entire old basement revolutionized.

First of all, in re-flooring or repairing a cellar, an efficient system of drainage should be provided, and so arranged with a grate over the drain source that vermin cannot enter the cellar. In retentive clays, more than one drain passing under the floor may be necessary, and each given a good fall away from the house. In the construction of these drains, agricultural drain-tile, not more than two inches in diameter, may be used, laid at the bottom of a wellcontinued to the point of outlet. H. B. Bashore recommends, in "Outlines of Rural Hygiene," wrapping the joints of the tile twice around with strips of muslin drawn tight. This makes a perfect cellar, holding the tiles in line, and affording much the best protection against the ingress of sand or silt. It is well to lay the drain along the two sides of the cellar, not more than two feet from the side walls, and curving so as to meet at the end of the cellar opposite the outlet. The drains may meet again where the main drain leaves the cellar, and at that junction is a suitable place for the opening through the cellar floor into the drain for flushing of the cellar floor. This may be This may be effected by a tile set on end standing on the tile below and coming just to the surface, but covered with a grate to prevent coarse, solid matter entering the drain, or rats or toads getting into the cellar.

For a cellar floor nothing that we have seen can surpass cement concrete, but before commencing to put it in, the walls, which should be of cement, stone or brick, should be put in first-rate condition by cementing up all cracks and holes so that when the floor is put down this part of the work will be finished, and can all dry together. All old sills and wood of any kind should be completely removed, and nothing left in the foundation that will decay. The loose soil should all be scraped off and the surface well pounded and covered with three inches of concrete made with coarse gravel, broken stones, and sand, mixed six parts to one part cement, well moistened and firmly rammed down. Allow this to set a few days, and cover with cement one part to three parts of clean sharp sand well rammed down and floated smooth. When this has firmed up, the cellar will be appreciated as never before, as it is easily kept clean, always dry enough, and rats cannot work into it. The next few weeks is a favorable time for doing this class of work, as it is the slackest season of the year when cement work can be done, and then the cellar will be ready for use by the time the hottest weather and flies have

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Farm Bookkeeping.

BY JOHN B. PETTIT.

Many a farmer, and I firmly believe every farmer who is slowly but surely going behind, has little or no idea of the amount of money earned and spent during each season as it goes by. This should not be the case. Every man, no matter what may be his occupation, should, after some style or manner, keep some account of his income and outlay, so that at any time he may be in such a position

FARMERS ABVOCATE

PURE-BRED YORKSHIRE SOW AND 14 OF A LITTER OF 20 PIGS.

BRED AND OWNED BY W. S. WELD, PRESIDENT OF THE WM. WELD CO., $^{\circ}$ LONDON.

as to ascertain for himself or, if need be, anyone else, his correct financial standing.

True, farming is different from any other

True, farming is different from any other business, and it may be in some ways a little more complicated and more difficult to keep track of, but that is only one reason why we should try the more to surmount these difficulties. Of course, as a rule, we can tell at the end of a year, by the length of our pocketbooks, whether we have made progress or have gone back, but we cannot tell where that advancement or failure has been made. This, with little trouble, could be overcome, and we could find out to a nicety just what part of our business is paying us and what part is not.

Generally, farmers do not care to do a great

Generally, farmers do not care to do a great amount of writing, so the farm accounts should be kept in the fewest number of books possible. In the outset, he should take an inventory of his assets and liabilities, and by putting a fair value upon everything he has, estimate just what he is worth financially. Then, in order to find out where he is making his largest profits or his losses, he should keep separate account of every branch of his farming operations. Some will think this an irksome

task, but let us investigate.

Draw a careful plan of your farm, and number each plot or field. When you have purchased any seed or fertilizer to apply on a field, charge it up with the same, and when you have spent any time on this field, charge it with the same also. This

can be done in a very simple manner, as follows:

FIELD NO. 1—WHEAT, 15 ACRES.

1901. DR. CR.

Oct. 1—To man and team, 10 days, plowing 15
acres \$20.00

Oct. 10—To 5 days, preparing land 10.00

15—To 20 bushels seed wheat 20.00

15—To 2 days, drilling 4.00

1902.

June 20—To 3 men and team, 3 days at cutting 10.00
Aug. 20—Threshing 250 bushels wheat 20.00

Sept. 1—By 200 bushels sold at \$1 20.00

Fifty bushels on hand \$20.00

\$84.00

Total profit \$166.00

Total profit......\$166.00

Thus we see that it would be a very easy matter

to keep an account with each field of our farm.

When this is done, we should open an account with each kind of stock. How many farmers are there that have any idea what each kind of stock is bringing into or taking out of their pockets? How do they know but their method of feeding their swine is causing greater loss through that animal than there is profit on their cornfields? Then, again, how many of us are feeding each one of our hens a couple of dollars' worth of feed per year, besides the time spent in caring for them, and are probably not getting one dollar's worth of eggs in return?

So we see that if all these accounts are properly and correctly kept, it is a very easy matter at the end of the year to ascertain just what crops and what fields are paying us the most, or whether they are bringing any profit at all. Also, we can learn from which kind of stock we are making the greatest gains, and find out if any of it is giving us an annual loss. Thus we can find out the leaks and speedily put an end to them, and bend all our energies toward that which is bringing us gain.

speedily put an end to them, and bend all our energies toward that which is bringing us gain.

The principal reason for farmers not keeping books is negligence and carlessness. Many declare each new year that they will do so in future. They do begin, but probably the first week they will wait until Saturday night to get accounts entered.

Then the next week they will again wait until Saturday night, and something will happen to call them away and it will be neglected until the next week. Soon it becomes difficult to remember the different sales and purchases, and the book or books are finally neglected completely and forgotten. They should be settled up every night, or a note made in a memorandum, to be copied when con-

Thus we see that by very little trouble we may, if we desire, so keep account of our affairs that at any moment we can tell just where

we are standing and what progress we are making.

venient.

Prepare for a Dry Time.

Showers have been so frequent during the spring months, and the growth of grass so rapid and gross, that we are apt to conclude that there is no fear of a drought this year, and to make no provision for such a contingency; but experience has taught that in the majority of summers there comes a time when the showers fail and pastures get brown and bare. Then the milk flow in the dairy herd shrinks, and the returns in dollars and cents fail in proportion, and what makes the loss more serious is that the cows, when they once com-mence to go back on their milking record, cannot be brought back to their normal work for that season. It is surely wiser to allow no shrinkage to take place, but to keep them working up to something near their capaci-Even if it costs something extra to do this, what of it, if the cows

pay for what they get by yielding more milk, every pint of which is worth money? The cost of this provision for tiding over a drought need not be great. An acre or two of mixed grain — preferably oats and peas - sown at intervals of a week or two, to be cut green and carried to the stable to be fed when the cows come in to be milked, or, perhaps better, at noon, when, if the weather is hot and the flies are worrying them, they will be much more comfortable in the darkened but wellventilated stable during the middle hours of the If the season should turn out exceptionally favorable to pastures, so that this provision is not required, there will be no loss sustained, as the crop cut in the milk stage and cured will make excellent winter fodder. Few, if any, farmers can afford to neglect to grow fodder corn either to cut and cure or to put in the silo for winter feeding, and it is the part of wisdom to sow an extra acre or two for feeding green to cows or other stock if pasture fails or is insufficient at any stage of the summer season. For sheep, pigs or young cattle, rape

sown any time in June or July will, under ordinarily favorable circumstances, produce a large amount of excellent for age during the fall months, saving the pastures and putting on flesh rapidly, as well as maintaining the stock in a healthy and thrifty condition. This is a crop for which the preparation is easy and simple, and which seldom fails to prove a success, improving the land as well as the stock, keeping green and fresh right up to winter, and giving the animals the very best preparation for going into winter quarters in a thrifty condition.

Sugar Beet Pulp for Milking Cows.

In a bulletin of the Cornell University (N. Y.) Experiment Station, two feeding experiments with sugarbeet pulp are reported. The first was made with 5 cows and lasted 11 weeks, and the second was made with 6

cows and lasted 10 weeks. In the first test the same quantities of sugar-beet pulp and corn silage were fed to individual cows in alternate periods. A uniform grain ration was fed in addition. The cows were given more hay when fed pulp than when fed silage. In the second test more pulp was fed than silage, the quantities of hay and grain fed in addition being constant throughout.

The following conclusions are drawn:
"The cows, as a rule, ate beet pulp readily, and

consumed from 50 to 100 lbs. per day, according to size, in addition to the usual feed of 8 lbs. of grain and 6 to 12 lbs. of hay.

"The dry matter in beet pulp proved to be of

equal value, pound for pound, with the dry matter in corn silage.

"The milk-producing value of beet pulp as it

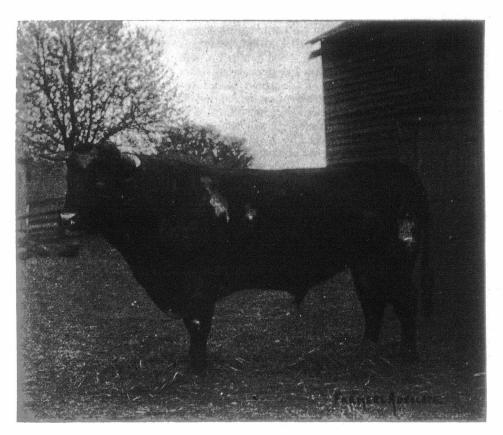
"The milk-producing value of beet pulp as it comes from the beet-sugar factory is about half that of corn silage.

"Beet pulp is especially valuable as a succulent food, and where no other such food is obtainable it may prove of greater comparative value than is given above."

A Crop of Clover Turned Under Equal to Ten Tons of Yard Manure.

In the evidence of Dr. Wm. Saunders, Director of Dominion Experimental Farms, before the Select Standing Committee on Agriculture and Colonization, the following information on green manuring was brought out:

"Experiments have been conducted for several years in the plowing under of green clover to enrich the land, and it has been shown that clover seed can be sown in all the eastern Provinces of Canada and in the coast climate of British Columbia to advantage with all cereal crops, without lessening the grain crop for the current year, and that after the grain is cut the clover grows luxuriantly, acting as a catch crop during the latter part of the season. Green clover turned under is specially valuable to the land for the reason that it absorbs while growing large quantities of nitrogen from the air, which is stored up in its tissues. A heavy mat of growth is produced by the autumn, which, when plowed under, adds considerably to the available nitrogen in the soil, as well as to the store of humus. The proportion of nitrogen thus added to the land has been found equal to that obtained from a dressing of ten tons of barnyard manure to the acre. Considerable supplies of potash, phosphoric acid and lime are also taken up by the clover plant during its growth, a part of which is gathered from depths in the soil not reached by some other farm crops. In this way the clover practically enriches the soil to some extent in these other important elements. That the land has been much improved by this treatment has been shown in increased crop on many plots when compared with adjoining plots on which no clover had been sown. In one series of experiments with oats, the average increase for the first year was 28 per cent. in the weight of the grain produced, and 78 per cent. in the weight of the straw. In the second year, when the barley was sown on the same series of plots without any addi-tional fertilizer, the increase in the weight of the grain produced on the plots which had been treated with clover was 29 per cent., and the increase in the weight of the straw was 35 per cent. In a similar series of experiments conducted with potatoes, the plots treated with clover gave an average increase in the weight of the tubers of 28 per cent. These experiments are being continued from year to year.



STARLIGHT = 17441 = .

SHORTHORN BULL, OWNED BY HENRY M. JOHNSTONE, CALDER, ONT. (See Gossip, page 375.)

The tests made in 1900 with oats, wheat, barley, and potatoes, confirm those of the preceding years, and further establish the value of this method of adding to the fertility of the soil."

Keep the cultivator moving in the corn and root crops and in the young orchard once in every ten days, to destroy weed growth while young, to prevent evaporation of moisture and hasten the growth of the crops. It will pay well.

Clover Ensilage.

In August, 1900, a small stave silo, 9 feet in diameter and 22 feet high, was erected. The material used was 2-inch spruce. A roof was built over the silo, but no other protection was provided for the ensilage than that afforded by the 2-inch stuff of

During the first and second weeks in September this silo was filled with the aftermath from a clover meadow. This consisted for the most part (about 75 per cent.) of clover, with a small admixture of timothy or herd grass. The clover was in full bloom, with here and there a head turning brown. The timothy was nearly ready to shoot the head.

The crop was cut early in the morning, the mower being at work at six o'clock. The wet material was gathered at once, loaded and hauled to the silo, in which it was thrown and tramped as firmly as possible. The silo was filled to the top three times, but when opened in January, 1901, the contents had sunk ten feet from the top. The surface was dry, and the material for a depth of 12 to 15 inches was of very little value, save as manure. Below that depth, however, the contents were in a good state of preservation, the leaves semi-transparent and the clover heads looking as though having been cut some two or three days only. The odor was very pleasant, the ensilage having retained the peculiarly sweet smell of newcut clover, with a very slight acidity. There was no apparent effect from frost, the ensilage was frozen only slightly from the wall. The ensilage was eaten with avidity by cattle, sheep, and pigs.

After being exposed to the air for some time,

however, a rather unpleasant odor developed. This objectionable feature would, I think, be obviated if the ensilage were fed regularly in sufficiently large quantities as to protect the surface from too long exposure to the air.

Were the surface weighted after the last filling, the loss at the top would, I think, be reduced to an inconsiderable amount.

The use of silos to conserve clover for summer feeding is, I think, rather strongly indicated by

Clover cut in June when in full bloom could be fed out in palatable form during July and August, and the silo be ready for corn and clover in September. It would, however, be unadvisable to try this work with a large silo unless a very large herd of cattle were being fed.

J. H. GRISDALE. cattle were being fed.
Experimental Farm, Ottawa.

Millet for Hay, Soiling, and Pasture.

Doubtless there are disappointing clover fields this season in sections that were too dry to carry the clover alive through the autumn months of last year. Those depended on for hay pasture or soiling will require substitutes in some form of crop that can be grown this year. To be sure, corn fills this need in a remarkable degree for soiling, but it does not take the place of hay so well. Millet, however, can yet be sown, and, on soil in good condition, will yield a deal of fodder in either green or dried state. It is not so suitable for hay as for green feed, however, and it serves its best purpose in August as a soiling food. It is a warm-weather plant, and may be sown any time in June. It will then come into head in August. After the heads appear, it becomes woody, and is proportionately less valuable for fodder purposes. On account of it being a shallower-rooted crop, it will not endure dry weather as well as corn, and succeeds best upon moist land in a good state of fertility.

For use as a soiling crop, the seed should be sown broadcast and harrowed in at the rate of about 12 quarts per acre. It is wise to begin cutting before the heads appear and to continue for twelve days. It cannot be cut to advantage for a much longer period, for the reason that after it is well headed it becomes tough and woody. In order to secure green millet to feed during the entire month of August and a portion of September, second and third seedings should be made at intervals of about ten or twelve days. Hatch Experiment Station recommends sowing peas with the first seeding, at the rate of 1½ bushels, along with 6 quarts of millet per acre. The peas are first deeply cultivated in and the millet covered with toothed harrows. The pea-andmillet mixture makes a desirable green feed

Millet for hay may yield from 3 to 4 tons per acre, but the difficulty of drying it satisfactorily renders it an unsuitable crop for this purpose. The coarseness of the fodder renders it very difficult to eliminate sufficient of the water to enable the hay to keep well, unless several fine days follow in suc-cession while the hay is drying. The hay, therefore, is liable to become musty and consequently unsatisfactory for feeding.

After some experience in pasturing millet, we are not carried away with its success. True, if eaten off by stock, no work is required in feeding it, but it does not put on weight like grass pasture. It has the advantage, however, of being green at the season when grass pastures are generally dry and parched. In case one is going to be short of pasture and cannot secure necessary labor to soil stock, a few acres of millet pasture will prevent the animals failing, and also give the regular pastures a chance to

Tarnip Growing.

To the Editor FARMER'S ADVOCATE: SIR,-I notice an article in the last issue (May 15th) on the turnip crop (page 334), from which I infer the writer, in some particulars, has had very little experience.

In this article it is recommended that the land should be ridged up in drills 26 inches apart. Thin to single plants 10 or 12 inches apart, and that they will stand a good deal of knocking about and be no worse for it. In my experience as a grower of turnips, I have found that by making the drills 26 inches apart and single out to 10 or 12 inches there will not be very much but leaves in the fall, especially on good soil.

I recommend the drills to be 29 or 30 inches apart, single out to 18 or 20 inches, and in a dry, hot climate, such as in Ontario, do not disturb the plants much when thinning.
York Co., Ont.
SIMPSON RENNIE.

The writer of the article referred to claims to have had over 40 years' experience in turnip-growing in Canada, frequently in that time growing up to 25 acres yearly and having won first prize in a county contest for the largest yield per acre, an average selection testing at the rate of 1,200 bushels, sown on the level, and cultivated at the distances apart named in the article. But he doffs his hat to Mr. Rennie, the gold medalist in a provincial farm prize competition, proposes a compromise, and is willing to divide the difference for ridge cultivation between his figures and Mr. Rennie's, the maximum of which he regards as extreme for the average farmer, though probably quite applicable to strong land in the rich condition in which his farm has been kept. A much wider latitude would doubtless be claimed by Mr. Rennie for the production of such specimen roots as he has been wont to win with at Toronto Exhibition.]

The Best Clover Hay.

Those words are of the greatest import to the farmer; no other subject covers so much or is so far-reaching. Manure, artificial fertilizer, peas, soy beans, rape, or the entire category of other leguminous plants, do not mean so much. Clover constitutes the nearest perfect ration for stock of any or all ages, of any or all kinds. We find it is relished by the horse, the cow, the calf, the colt, the pig, hog or brood sow, the goose, the turkey, and the hen. Again, it is the most diligent worker in nature's laboratory in repairing the worn soil, and in sustaining all soils under the most exacting strain. Still further, its usefulness is of vast importance in increasing the quantity and quality of the manure heap. After all the above uses, we return to the soil an ingredient per ton equivalent to \$7 worth of best commercial fertilizer; and, further, if our land is worn-out in places-thin points, hard to set in grass of any kind-fresh manure from animals fed clover hay is worth much more than anything else we could use for the purpose. The hay spoiled by rain, mould or any cause is the best and most lasting manure to apply to fruit trees in the form of mulch. Clover, to accomplish nature's work, must not be retarded in its growth. If tramped at any stage, its renovation of the soil ed. Clover roots penetrate the soil portion to growth of tops. Any check to plant growth acts likewise on root growth, and as on the root depends both chemical and mechanical action on the soil, we plainly see why its growth should not be checked.

I will, as near as I can, describe our method of making hay. First summer after sowing, should the land be fertile, some seed heads may form, which should not be allowed to ripen. It should be moved when these scattering blossoms appear, and left on the ground. This will insure success in going through winter, as well as full returns in the hay crop, which should be cut as soon as full growth is attained. Do not wait for a certain per cent. of heads to turn brown, as any degree of ripening or any delay in cutting is sure to check the second or seed crop, as well as quality of hay. Whenever clover ripens to any extent, the hay will be woody or fibrous, and just here depends largely its value as

I wish to say that if tedder is used, much of the most valuable parts of the clover is wasted; never handle more than absolutely necessary. Cut when dry an inch above the ground; when thoroughly wilted, rake. Do not rake the ground, but the cut clover. The horse should walk briskly when dumping the small gavel to insure its being turned over contrary to the way it lay on the swath. Do not try to make time by making large windrows, as when too large a pile accumulates before the rake it becomes compact and cannot be a "wind-row," but in case of clover a "sweat-row," that is but little if any benefit to the curing of the hay. Haul in whenever the clover is in god for his and the compact that it is the compact whenever the clover is in good forking condition; if too green, the horse fork at barn will not readily go through the load. Put up in as large a mow as possible; put all you have together if you can. Tramp in evenly; tramp most around posts and next to the sides of building. Put in as quickly as possible. Have no other growth mixed in with the clover—weeds, briars, bushes or any large bunches of other grasses, as wherever such a bunch

you are sure to have mouldy hay around it. After you are done putting in, and in two or three days you find the hay to be heating, or even moisture escaping through crevices of building, do not be alarmed; let it alone; do not tramp on it while curing out, and all will come out right by feeding time.

Color will be, when cured out, a nice brown that ought to smell, not like fresh-mown or fresh-cured hay, but just like well-cured clover that will be found pressed compact in mow clear of dust, every leaf and blossom intact; the most perfect forage devised by nature or cultivated by man.—Morgan Keane, in Journal of Agriculture.

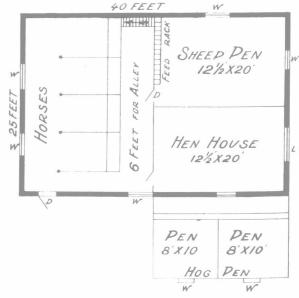
Good Farmers and Good Farming.

Good farmers and good farming must go together, for good farming cannot be done by a poor farmer. Good farming alone pays, and the farmer who sows without any assurance of good crops every year might better work for his capable neighbor than for so poor a paymaster as he is sure to prove himself. The steady improvement of the crops proves the good farmer. Many may reap a good crop from a fertile soil at first, but their crops soon become poorer and poorer, until they have to quit farming. The good farmer grows good crops at first and better ones afterwards. He finds that it is far easier to maintain the productive capacity of the farm than to attempt to restore it. It does not pay to exhaust its fertility and then attempt to restore it by commercial fertilizers. Only the least exhaustive products should be sold, and although he may be obliged at first to sell grain and hay, he will soon send off his supply in the form of wool, meat, or butter and cheese, or anything else that restores to the soil nearly all that it has taken from it. A farm which is having its productive capacity steadily diminished is like a bank account daily drawn upon and nothing deposited to its credit, and it will soon reply, "no funds." I know of many farmers who worked hard from daybreak to dark and yet died poor, because they wrought to disadvantage. Every farmer should devote some time each day to reading and reflection, and then there would be less failures in farming. The farmer should raise his children in an attractive home: one in which they delight to spend their evenings, and in which they take an interest in beautifying. If the farmer is successful in farming, he should raise his son or sons so that they can take up the work when he leaves it and prove themselves as capable, or even more so, than he has been. How often we see a young man left a good farm by father, and in a few years he is either in debt or has given up farming, saying that there is nothing to be made at it. Now, if that man's father had allowed him to go forward and do the work while he was yet alive, so that he could advise him and help him, things would have been different, and he, instead of having to quit the farm, might have proven himself a good farmer. There should be in all farmers' homes a small library of suitable books, and these should be carefully studied, and when he wishes to try anything new to him, it should always be on a small scale, and if successful, he should increase it gradually. farmer has worked himself up gradually, and he still has to study and experiment to keep up, and more so to keep on growing better. J. R. B. more so, to keep on growing better.

Stable for Horses, Sheep, Poultry, and Hogs.

To the Editor FARMER'S ADVOCATE:

SIR,—I notice in May 15th issue of Advocate, in the Miscellaneous Department, that an enquirer in Glengarry County asks for plan of stable 40x25 feet, to contain space for 4 horses, 10 sheep, a hen-



GROUND PLAN OF STABLE, 40 BY 25, FOR HORSES, SHEEP, AND POULTRY; AND LEAN-TO, 12 BY 20 FEET, FOR HOGS.

house, driveway under, and a feed-room. Now, he does not say how many hens or hogs he wishes to keep, but judging from the number horses he stables, would think that he probably owns or lives on a 100-acre farm, and would therefore keep about 16 to 20 hogs, and from 20 to 30 hens. His four horses.

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with an alley in front of them, will require at least 20 feet off the end of the stable, to be divided up as follows: A six-foot passage behind the horses, six feet to be used as stalls, 2 feet for the manger, and 6 feet for the alley. Along the west side of the first stall, between the stall and the wall, there should be a 3-foot passage, thus leaving 22 feet for the four stalls, or 5½ feet for each stall, including partitions. We have now left a space 20x25. Ten sheep should have no less than half of this, and thirty fowls should have the rest. Thus we will have to exclude the hogpen from the main building, and enquirer may build a lean-to, just on the west side of the henhouse, for his hog-pen, which should project out at

He would then have two good-sized pens, 8x10 feet each, which would be all right for 16 or 20 hogs. Of course there will be no up-stairs over the hog-pen, but he may have his feed-room over the henhouse, and have his grain slide down through chutes into each alley. He may have hay over sheep pen, and horse stable.

least 12 feet so as to include a 4-foot alley in front.

I have excluded the hogpen from the main stable, as I do not approve of the idea of a hogpen, which always has such a filthy smell, right in front of the horses or even next to the sheep and hens.

Elgin Co., Ont. CLAUDE W. BLAKE.

Death of Donald Alexander.

With deep regret we record the death, from pneumonia, on May 10th, in his 60th year, of Mr. D. Alexander, Brigden, Ontario, an enthusiastic and successful farmer and breeder of Shorthorn cattle, and an occasional and ever welcome contributor on stock and farming topics to the columns of the FARMER'S ADVOCATE. Born and brought up in Thurso, Caithness Co., Scotland, he came to Canada in 1866, at the age of 25 years, with little capital other than strong and willing hands and a brave heart, and settled on the rough and unimproved farm in Lambton County which from that time till his death was his home, and which, by dint of industry and intelligent management, was transformed into fruitful, smiling fields, with comfortable and convenient buildings. A prizewinning plowman, he took an honest pride in doing all his work thoroughly, and so impressed was he with the impor-tance of good plowing and tillage, that he had prepared for the press a treatise on this subject, which it was his aim to have published, the MS. of which the writer of this tribute to his memory had the privilege of reading and the pleasure of commending. Inspired in his youth with a love for good stock by his association with prominent breeders in his native land, his ambition to own a good herd of Shorthorns led him, as soon as he was in a position to do so, to lay a sound foundation, on which, by good judgment and skillful methods, being a pastmaster in the art of feeding, he built up a high-class herd, and by upright and honorable business dealing secured and maintained a good reputation, and found a ready market for his surplus stock at good prices.

He was a man of strong convictions, and with the courage to stand by what he deemed right, though he stood alone; and yet, withal, was kindly in manner and warm-hearted and true in all the relations of life, and died as he had lived—a sincere Christian.

Mr. Alexander was married, in 1873, to Miss Jane Brown, who was a native of Lambton County, born of Scotch parents and brought up near her present home, where she proved a true and sympathetic helpmeet to her husband, and a model mother to a fine family of eight children, the eldest of whom is 27 years, and all of whom were living up to the 23rd of April last, when the second son, David, died of pneumonia, in Toronto, at the age of 25, an occurrence which was a hard trial to his parents, and it was at the funeral of the son that the father contracted the cold which settled upon his system, which had been weakened by a similar attack about a year previously, and in less than three weeks he passed away. In this double distress and sorrow, the surviving family will have the sincere sympathy of a large circle of friends.

It is the intention to continue the farm and business on the same lines as heretofore.

Mr. J. E. Hopkins has Gone West.

Mr. J. E. Hopkins, late Superintendent of the Experimental Dairy Station at Nappan, N. S., has been appointed to take charge of the Dominion Dairy Commissioner's work at Moose Jaw, N.-W. T. Mr. Hopkins has spent about ten years in the Maritime Provinces, having had charge of the Sussex (N. B.) Dairy School for several years, where he did excellent work in preparing cheese and butter makers for efficiently prosecuting their profession, and his influence will be long felt in the Eastern Provinces as a thorough, painstaking and sympathetic teacher. Mr. Hopkins will be at home in the West, where he formerly lived and where he has friends and property interests.

Mr. W. M. Singleton, of Newboro, Ont., has accepted in New Zealand a position as chief assistant to Mr. J. A. Kinsella, who is also a Canadian and who succeeded Mr. J. A. Ruddick there as Dairy Commissioner for that colony.

DAIRY.

Pan-American Model Dairy.

From the report of the work of the cows in the test at Buffalo, for the week ending May 14th, we condense the following:

| Breed. | Average lbs. milk. | Highest milk yield. Lbs. | Average lbs. est'd butter. | Highes butter yield. Lbs. |
|---|------------------------------------|--|---|--|
| Jerseys Guernseys Holsteins Ayrshires French-Canadian Shorthorns | 271.13 306.9 316.11 229.6 | 282.9 300.4 395.9 372.2 271.11 330.11 | 12.67 14.07 12.42 13.47 9.45 11.62 | 14.89 16.08 13.85 14.46 10.46 12.81 |
| The cows giv | ng the n | nost milk | and the | greatest |

weight of estimated butter, respectively, as above,

| | Highest milk yield. | Highest butter yield |
|------------------|------------------------|--------------------------------|
| Jerseys | Gipsy of Spruce Grove. | Mossy of Hursley. |
| Guernseys | Procris of Paxtang. | Mary Marshall. |
| Holstein. | | M€g. |
| Ayrshires | chardton. | Kirsty Wallace of Auchenbrain. |
| French-Canadian. | Liena Flory. | Liena Flory. |
| Shorthorns | Rose 3rd. | Queen Bess. |

Milk for Cheese Factories.

The patrons of a cheese factory have a direct financial interest in supplying only good pure milk, free from taints or bad flavors. The greatest amount of care and skill with which the cheesemaker may do his work will not enable him to make a superior quality of cheese, or to secure the largest yield of it, from milk which is not in good condition.

The above paragraph was taken by Mr. J. A. Ruddick, chief of the Dominion Dairy Division, as a text upon which a recently-issued bulletin was constructed. Mr. Ruddick, after returning from New Zealand, was engaged one cheese-shipping season, at Montreal, inspecting cheese going forward for export. During that period he discovered many defects in Canadian cheese, and, being an experienced cheesemaker, and possessing an investigating mind, he was able to locate the sources of many faults that, when they reach the British market, tend to injure our good name, and thus allow other strong competitors to step in and occupy our envied position. The bulletin referred to is written with a view to guide dairymen past some of the dangers in the way of producing good milk, without which it is impossible to make good cheese. First of all, it is pointed out that the factory manager is keenly interested in making first-class cheese, and in making as much of it as possible. He also, therefore, is anxious to receive as much as possible first-class milk, and does not refuse a patron's milk unless it is not in a condition to make good cheese. As a rule, patrons suppose that they do furnish good milk, but the factory manager is daily comparing many samples, and is better qualified than one less experienced to judge as to the suitability of milk for cheesemaking. Among the many sources of taints in milk, Mr. Ruddick refers to unsuitable food, injudicious feeding of the cows, impure water, want of salt, odors, and the infestation of germs that enter the milk during and after milking. Regarding food, it is mentioned that troubles from weed flavor are, as a rule, confined to limited districts, so that our cheese trade is not liable to be materially injured from that source. Turnips and rape should never be fed to milking because the taints they impart cannot be eliminated by any process known to the cheese-maker's art. Some foods that might be considered first-class, when fed in excess will derange the digestive system of the cow, and thus cause the milk to be fainted. Such foods as green clover and green rye are examples of foods that give trouble in this way.

An impure water supply is a great source of puble. When cows are compelled to drink the trouble. water of swamps, muddy ponds or sluggish streams and ditches, which may include their own droppings, there is a constant menace to health, unless cows are in good health they cannot give first-rate milk. Moreover, the mud (often full of foul germs) which collects on the legs, flanks and udders of the cows, and falls into the milk at time of milking, is a direct source of infection which is extremely serious and often overlooked. cows have free access to salt at all times they will give more milk, which will have a better flavor and keep sweet longer, than when they do not get any at all or receive it only at intervals. The susceptibility of milk to absorb odors is referred to, and the necessity pointed out for removing it from the stable or milking-yard as soon as possible after

The most treacherous, also the most common, sources of gassy or tainted milk are from germ life, and are associated with filth in some form or other. Stagnant pools, dust from barnyards and milking-yards are alive with bacteria more injurious to milk than much of the visible dirt taken out by the strainer. Improperly-cleaned milk pails, strainers, and cans, also neglected whey tanks, are great sources of infection. The practice of returning whey to the farms in the milk cans is detrimental to successful cheesemaking, but when it cannot be arranged to have the whey disposed of in some other way, the tanks should be emptied and thoroughly cleaned at least once a week.

Even with the greatest possible caution in caring for the herd, and also the milk, it is not possible to exclude from the milk all injurious bacteria, but the effects of these may be overcome by aeration and cooling. Aeration should be performed in a pure

atmosphere, while the milk is warm from the cow, by exposing it in a thin film or spray, or by forcing air through it, or by dipping or pouring it from vessel to vessel. This allows the escape of odors, gas, etc., but does not prevent souring, except sofar as the process lowers the temperature. In cool weather the cooling may be considerable, but in warm weather it is advisable to supplement the aeration by standing the milk cans in cold water or by the use of combined aerators and coolers. The bulletin recommends paying for milk on the basis of its quality, determined by its fat content, and reminds patrons that the addition of water, the subtraction of cream, or the withholding of strippings, are forbidden by the Dominion Statutes. The bulletin concludes with a summary of important points for the patron:

1. Only milk from cows in good health should be sent to the factory.

2. Milk from a freshly-calved cow should not be

sent till after the eighth milking.

3. Pure water should be provided for the cows in unlimited quantities, and cows should be prohibited from drinking stagnant, impure water.
4. A box or trough, containing salt to which the

cows have free access, should always be provided. 5. Cows should never be driven fast, and it pays to treat them with invariable kindness

6. It pays to make cows comfortable under all conditions

7. All the vessels used in the handling of milk should be thoroughly cleaned immediately after their use. A washing in tepid water to which a little soda has heen added, and a subsequent scalding with boiling water, will prepare them for airing, that they may remain perfectly sweet. A brush is preferable to a dishcloth for use in cleaning. They should be protected from dust, which always carries large numbers of the bad forms of bacteria.

Cows should be milked with dry hands, and only after the udders have been washed or brushed

9. Tin pails only should be used.
10. All milk should be strained immediately after

11. Milking should be done and milk should be kept only in a place where the surrounding air is Otherwise the presence of the tainting

germs and odors will injure the milk.

12. All milk should be aired immediately after it has been strained. That treatment is equally beneficial to the evening and morning messes of

13. In warm weather all milk should be cooled

to a temperature of 70 degrees Fahr, or lower, 14. Milk-stands should be constructed to shade the cans or vessels containing milk, as well as to protect them from rain. Swine should not be fed near the milk-stand.

Cool Curing Cheese.

At all the more important dairy meetings held in Canada for the last two or three years, the necessity for a general improvement in cheese-curing rooms was very strongly emphasized. Patrons especially should urge that curing rooms be put in, on condition that the cheese cured in them will not be overheated. The cheesemaker should also urge this, as no matter how careful the patron may be in feeding his cows, caring for his milk, and delivering it in fine condition, or how accurate the cheesemaker may conduct his work, if the first-class green cheese isputintoapoorcuring room, that cannot be kept cool, the pains of patrons and makers are gone for nothing, as only a poor mature cheese made in the heated season will be the result.

For three seasons Prof. Dean conducted experi ments in curing cheese at different temperatures, viz., 60, 65 and 70 degrees, and found that of these temperatures, 60 gave the best results in both flavor and texture, and the shrinkage was also consider-ably less. We find that New York Agricultural Experiment Station has also been working on this problem, as poor factories and defective curing rooms are found in New York State as well as in Canada. In all,14 comparisons were made by F. H. Hall and Geo. A. Smith, of Geneva (N. Y.) Station, between cheese cured in high and low temperatures. In every case the cheese cured below 60° scored higher in flavor and texture than those cured at higher temperatures, the deterioration in quality at the high temperatures being very marked in some cases. The average score of the cheese cured at and below 60° in 1899 was almost 5 points higher on flavor and 2.5 points higher on texture than the score of the cheese cured at 65° and above. In 1900, when some cheese were cured at the high temperatures of 75° and 80°, the difference in the scores was still greater: Flavor, 5.1 points; texture, 2.7 points. These are more than 10 per cent. gains, so far as scoring is concerned; but the real advantage of the cold curing is greater than this; for many persons will not touch a poor-flavored, poor-textured cheese at any price, who would consume or handle freely a perfect article. Many of these cheese cured at low temperatures were pronounced nearly perfect in flavor and texture by the scorers. One says, "I have tested the cheese (55°) and can say that it is especially fine"; another, "The cheese all good, the 55 F. very fine"; another, "Nos. 5 (60°) and 6 (55) are very nearly perfect cheese. Considering that they were made four months ago, we might say that no cheese could be made that would show better at the expiration of that time"; and of another lot the same expert says: "Nos. 1 and 2 (80° and 75°) are about the poorest we have had from you, and Nos. 5 and 6 (60° and 55°) the best, particularly No. 6. This we call a perfect August cheese.'

The Farm Separator and Creamery Buttermaking.

Just a word or two, Mr. Editor, on the article by "Economist" on the above subject in your May 15 number. I am a creamery owner and operator, and beg to speak from that standpoint. I have been a maker and seller of private (or farm) dairy butter, and am therefore able to speak from that standpoint also. Besides this, I have had opportunities of personally examining into the methods of many hundreds of farmers throughout all Ontario, and can therefore speak as well from that point of vantage.

As to the cost of making butter at a creamery (separator creameries only are spoken of in this article), all interested persons know that three to three and a half cents is usually charged for making and selling. As to relative cost between the farm separator and the creamery separator, let "Economist" chew on the following facts (not merely thoughts or opinions). Four power separators, costing \$1,300, separated the milk of two hundred and fifty farmers during last season. Two hundred and fifty hand separators, costing an average of seventy-five dollars each (a very fair estimate) represents a capital outlay of—wait a minute— \$18,750. Whew! But more: Are these two hundred and fifty persons, mostly untrained, likely to do as Are they all likely to look as carefully and well after their machines? Does "Economist" think that these two hundred and fifty farmers will care for this cream as well as the creamery operator? He knows they will not, and could not be made to do so by any means or measures. And, too, if it is now difficult enough for a creamery to turn out an A1 article, how much more difficult when the ripening of the cream is practically taken out of his hands—a process affecting the flavor of the butter more than any other thing.

"The farm separator has come to stay." That is quite true in its right sphere. "No amount of sympathy for the unfortunate factoryman will induce a farmer to lose a large percentage of the product of his dairy for long." This is also true. product of his dairy for long." This is also true. "And a little thought on the subject will soon convince him that he cannot patronize a milk-gathering creamery without loss." These quotations from "Economist" prove two things: 1st, that he is not, and never was, a creamery manager; and 2nd, that his experience has been with a very poor example of the despised creamery. A very little thought serves to convince some people of the accuracy of their ideas. But facts are more stubborn things to combat than thoughts, and we append a few more of them, to prove our contention that the separator creamery is the proper basic system on which to build up our local and our export butter trade.

Not two weeks ago a local buyer and shipper called me up for a supply of "creamery." The price I quoted was a little high for him, and he added: "But yours is all separator butter"; in other words, there is no cream-gathered product in it. That was not simply his opinion, but a condition of things forced before his notice by the inexorable law of markets. About the same time I met an English importer of creamery, and in talking over the outlook he said in substance, "Keep your product free from cream-gathered material." We could produce letters from the foremost Canadian exporters voicing the same sentiment, and these men are not opinionative merely, but close students of the trade's demands. Does "Economist" know that the output of Western Ontario creameries in general does not hold a high place in the opinions of men buying for export, in comparison with that from Eastern Ontario and Quebec, and that the chief reason given is the prevalence of the cream-gathered article? Nevertheless, such is actually the case, and our export market is the chief thing Canadians have to guard just now. In six years our export of creamery butter has increased one hundredfold, and the opinion of the Englishman regarding this product has also undergone a wonderful change for the better. Who dares to say, Mr. Editor, that the cream-gathered article could ever have brought this about. This advance in quality and quantity has been co-existent with the life of the separator creamery.

I have by no means exhausted the arguments in favor of the stand taken by me on this subject, but enough has been said, perhaps, to throw some light on this matter. I wish to say, in closing, that I do not desire to be understood as throwing any reflection whatever upon cream gathering creameries, which have done an excellent work in this country, but I do object to the idea of turning the separator milk-gathering creamery into the cream-gathering factory.

F. J. SLEIGHTHOLM. factory.
Middlesex Co.

Mr. J. W. Mitchell, who for the last few years has been Superintendent of Government Creameries in Assiniboia, has been transferred to the Maritime Provinces, where he will fill the position of Dairy Superintendent on the Dairy Commission-

In the journal of the British Dairy Farmers' Association, J. Allsebrook, in a study of the relative values of mangels and swedes as food for dairy cows, reaches the conclusion that from most points of view the mangel is the more valuable crop to the dairy farmer.

Royal Jersey Butter Test.

Owing to the lateness of the season and the scarcity of hay, only 21 cows competed in the annual butter test at the Royal Jersey Show at St. Helier, May 6th to 9th, for the English Jersey Cattle Society's butter-test medals. The cows were stripped ciety's butter-test medals. The cows were stripped on the evening of May 6th, the milk of the next 24 hours being taken for the test. Separation took place on the evening of the 8th, and churning on the morning of the 9th, the awards being published at noon that day. Seventeen out of the 21 cows tested obtained prizes or certificates of merit. The record of the gold-medal cow is remarkable, in that after being milked 220 days she yielded 2 lbs. 4½ ozs. butter from 32 lbs. milk; ratio, lb. milk to lb. butter, 14.05. The silver-medal cow, 96 days in milk, gave 45 lbs. 4 ozs. milk, and made 2 lbs. $10\frac{1}{2}$ ozs. butter; ratio, 17.03. The average of the 17 prizewinners was 31 lbs. 3 ozs. of milk and 1 lb. 15 ozs. butter; 154 days in milk.

POULTRY.

Markets for Poultry.

LONDON OR LIVERPOOL OR MANCHESTER, WHICH SHALL THE CANADIAN FARMER SHIP TO LONDON, THE HIGHEST-PRICED; MAN-CHESTER OR LIVERPOOL, THE SIMPLEST AND SAFEST.

To the Editor FARMER'S ADVOCATE:

SIR,-The Canadian Produce Company, at considerable expense, have personally investigated the above matter thoroughly, I, myself, as their manager, having visited England this spring in the midst of the frozen-poultry season. No individual farmer should think of shipping to England. Anything under ten tons, or one carload, need never be expected to pay under any circumstances. If, however, a number wish to co-operate and try their luck, good or bad, this is our advice: First, decide where you are going to ship; then, to whom; and then, how. It is the first of these I wish to touch upon—that is, what port? The choice lies practically between London and not London. Now, to begin with London, let me say you will get the best price for good stuff in good condition; but the consumers and the merchants are a cranky lot, with many silly prejudices and fads about everything, and some little trifling variation in packing in your poultry may turn them all against it and bring you a poor price. Then, again, London is the hardest market in the world to get at. If you ship direct to the port of London—that is, Tilbury or the Royal Albert docks, both of which are many miles from London market-your stuff will be dropped on the wharf, to remain there from one to ten days to take its turn going to London proper, by which time it will be thoroughly thawed and fit for pigs only. This has been the actual experience of thousands of pounds of Australian rabbits this year. goes up to London by train or barge. If by barge, it will be floated up with the tide, again taking some days in transit, in filthy barges, which will finish anything not already spoilt. If by train, it costs \$\frac{1}{2}\$\$3.00 per ton, a good slice out of your profit. In fact, if you ship direct to the port of London, you must either have an agent of your own or your buyer to meet it for you and see it rushed through into market. London can also be reached by shipto Southampton, Liverpool or Manchester, and thence by rail to London. The first of these. Southampton, is probably the best way to reach London; but big American firms early in the year buy up all the space on the steamers to that port, so you will probably not be able to ship that way. The rail rate from Liverpool or Manchester to London is \$6 to \$14 per ton, which is pure robbery. Unfortunately, all the railways also are careless and slow, consequently you run great risk of delays and total loss of shipment, our own experience of a shipment taking four days from Manchester to London, a distance of 225 miles, being an example. Now, as regards Manchester and Liverpool, the

prices are not so good by at least one cent per pound, but neither are so cranky as London. They will take any breed or quality, any size, age or style of plucking or packing, so long as they are wholesome and eatable. Above all, both ports are easy to reach, as excellent lines run to each direct from Canadian ports, and the rates are cheaper

To sum up, it can be seen that the easiest, simplest and safest ports are Liverpool and Manchester, and to the beginner I would certainly advise either until they have had good experience, for, if they cannot make quite as much, they certainly cannot lose as much as with London. York Co., Ont. DR. BOULTBEE.

Look Well to the Early Chicks.

When do chickens require the most care, and when is it the most willingly given? Just after they are hatched, most people will answer. A good start in a chick's life is no doubt a long step in its life, and the brood repays good care. But there is a time that, without absolute negligence, the chicks do not get the same care. They are not the little balls of fluff running around any longer. They are not as nice to look at or so easily managed, yet, in my opinion, this is when they require the most

skillful management. If you are fortunate enough to have a nice flock of chicks six or eight weeks old, don't neglect them for a couple lately hatched. March birds are worth a dozen of their younger brethren. I have often seen, as late as May and June, time, labor and ground devoted to hens that had brought off chicks from stolen nests, while the older chicks were almost entirely left to look after themselves. Let the mother run with her family just as long as she is inclined. It is quite time to separate them when she begins to pick at them at feeding and lag behind at roosting time. It is very amusing at evening time to watch how she tries to slip away from the flock and lose them. Extra trouble in providing a dry, clean roosting place for chickens at this age will be well repaid. If you want to have small, stunted chickens, shut them in a close, badly-ventilated house at night. If you want them to grow healthy and large, give a roosting place with all the fresh air you possibly can. The next and very important duty is to keep them well supplied with fresh water. That which is tainted and heated by the sun is very bad for them. Their water vessels should always be placed in the shade. The feed should be generous. fast I give ground oats, barley and middlings, in equal proportion, mixed with hot water in such a manner that it is in a crumbly, not sticky, state: do not feed it warm. You must stand and watch them eat, and stop feeding just before they have had enough. If your chickens can be moved to different runs every month or so, the change will be good for them. A portable poultry pen that can be taken to the wheat field after the crop is harvested, and the chicks allowed to pick up all the lost grain, is a good idea. Then, when they have cleaned the wheat fields, the pea, oat and barley fields can be cleaned up in the same way, as can also the corn field by the later-hatched broods. But always be sure they have plenty of water. It will pay any farmer to construct such a building for the chickens. It is better to keep the cockerels separate, and as too many do not do well together, it is no more trouble to have the cockerels all by themselves as to divide the flock the usual way, letting pullets and cockerels run together. During the whole of the chick's life they should be kept separate from the adult stock. A few minutes spent watching young chicks make their way through a flock of hens will convince you this is an absolute necessity. If your chicks weigh two pounds, live weight, by the first of July, you will have no trouble to get fifty cents a pair if you are able to put them on a good market. A couple of hundred of these chicks will return one a handsome profit. Those that come on a little later will bring forty cents a pair. The railroad dining-cars make use of a great many of these early While there is money made in raising chicks any time of the year if you can get them on a good market, none will return more clear profit than the early broiler. There is an unlimited demand for our poultry in England. Why should not we farmers raise enough to supply the English

VETERINARY.

Hints on the Castration of Colts.

As this is the season at which 90 per cent. of the colts are castrated, a few hints on the care before and after the operation may be useful. As a rule, colts are emasculated at a year old, unless markedly deficient in the development of the fore end, in which case they may be left until two years old. This operation is best performed by the veterinarian, so that in the event of any contingencies otherwise unforeseen arising, the chances of successfully overcoming them will be greater. The up-to-date veterinarian operates with the ecraseur (the chain instrument) or the emasculator (a sort of scissors, with one side of its jaws serrated), the latter instru-ment being preferable. Other methods have been quite successful in the past, yet the instruments we mention are far in advance of the clams, torsion, forceps or hot iron. All colts should be perfectly healthy at the time of operation; those having had a run at grass will be all the better for it. Do not have the colt thrown on a manure pile for the operation, and see that your veterinarian uses some antiseptic and that his instruments are clean. Lack of cleanliness is the forerunner of blood-poisoning, so be governed accordingly. The introduction of dirty hands into the wound made in the scrotum is positively dangerous. After the operation, see that the wounds are kept open for some days and that the cord does not come down and get attached to the lips (edges) of the wounds. If necessary to introduce the fingers to reopen the cuts, dip them in some antiseptic first: a solution of carbolic—one of the acid to fifty of water-or creolin same strength, will do. Give plenty of exercise the next and following days after the operation. You will thus tend to prevent the great swelling of the sheath, so alarming to some owners. Scirrhus cord, a growth appearing at the end of the cord, which discharges and thus keeps the wound unhealed, is a common sequel to the work of the traveling castrator, so that money will be saved to the owner and the setback to the colt by a second operation avoided if the hints above given are followed out. During cold and wet periods occurring soon after the operation the colts should be housed. It is better to pay \$2 to your local veterinarian than \$1 to the traveling castrator for the

GARDEN AND ORCHARD.

Farmers' Institute Annual Meetings at Fruit Experiment Stations.

All up-to-date teachers now agree that the best way to instill practical truths into the pupils' mind is to actually show them the thing they are talking about, and allow the eye to assist the memory. The time has come, then, when more practical demonstrations must be given in Institute meetings. Were it possible, writes Supt. Creelman, I should like to see live animals of the different breeds brought to the meetings, and used to illustrate practical talks on live stock. In our severe winter climate, however, this is not practicable in most places, so one large Institute meeting is held at Guelph at the time of the Provincial Winter Fair, and thousands of Institute members come there and see the cattle judged and hear the judge give his reasons for awarding the prizes in the different classes. There is no reason, however, why our annual meetings should not be made more practical. They are held early in June, at a season between seeding and haying time, when most farmers can easily spare a day from the field work. With this object in view, therefore, we this year arranged ten orchard meetings, as follows:

ORCHARD MEETINGS.

At each of these places it is proposed to hold these meetings in the form of a basket picnic; the farmers driving in in the forenoon and having dinner in the orchard, after which Professor H. I Hutt, of the Agricultural College, assisted by such local help as is available, will give practical demonstrations in spraying, pruning, grafting and budding. The meeting will be purely informal, and the Professor and his assistants will be prepared at any time to answer questions and to suggest remedies for injurious insects and fungous diseases.

USING THE ELECTRIC CARS IN INSTITUTE WORK.

At the meeting to be held in South Wentworth on June 20th, it is proposed to charter several street cars at Hamilton, and to travel south along the electric line to Grimsby, stopping en route at the orchards along the way. The Institute members will visit, among others, the farms of Murray Pettit, Winona; William Orr, Fruitland; L. Wolverton, Grimsby. In this way we hope to bring our Institute members in actual contact with the best methods of work as performed by our most successful fruit-growers. Thus from Grenville County, on the St. Lawrence, to Essex County, on Lake Erie, it is hoped to give every one interested in fruit of any kind an opportunity of seeing an orchard managed in most up-to-date manner.

Go for the Caterpillar.

No one who has an orchard can afford to allow the tent caterpillar to flourish on the foliage of his trees. It means the loss of a crop of fruit and great damage to the health of the tree, and it is a discreditable spectacle to see an orchard stripped of its leaves and covered with the webs of the caterpillar. An hour's work now and again in destroying them will keep the trees clean and save the crop and the reputation of the owner for good management.

APIARY.

The Production of Extracted Honey.

BY MORLEY PETTIT.

After the initial expense, the cheapest branch and the one most sure of success for beginners in beekeeping and those wishing to devote but little time to the art is the production of extracted honey. On this subject a paper, by Mr. Alex. Dickson, of Lancaster, was read at the last convention of

the Ontario Beekeepers' Association. He said:
In the first place, what is extracted honey? It
is an article of food gathered by the bees from different plants, which they carry to their home and deposit in combs made by themselves. When filled, they are taken out by the apiarist and placed in the extractor, and the honey is thrown out, after which we call it extracted honey. There are two grades of extracted honey: good and bad. The latter is obtained by taking it from the bees too soon, while it is yet thin and unripe. To secure a good supply of is yet thin and unripe. To secure a good supply of the former, proceed as follows: Previous to the 1st the former, proceed as follows: Previous to the 1st of June see that your colonies are in good shape; supplied with young queens the fall before. June has now arrived. Watch close if the bees are beginning to whiten their combs. If so, put on the upper combs at once, with perforated metal between upper and lower set. Here is the secret of good honey and no loss of time with the bees. good honey and no loss of time with the bees. If bees have wintered well, the writer finds that some need a super by May 15th.] The first story being filled, raise it up and put another between the lower and the one you have just raised. the bees are capping the raised story they are filling

the second set. When the first set is capped from one-half to three quarters, it is ready to take off and to be carried to your extracting room. The above is what we call the tiering system. In the first place, there is no loss of time with the bees in capping; then, you have a better crop of honey, so far as the

bees can ripen it; and further, your bees are not overcrowded. You see it is quite evident if you extract your combs before they are capped over you have a grade of honey just as the bees brought it in from the blossoms. If so, you will only sell that grade of honey to your customer once.

Mr. Dickson has a novel honey room for further ripening his honey by raising it to a higher tempera-ture than it reaches in the hive. The roof of this room is partly of glass, and a large window faces southward so the temperature will run up to 120°. The honey is placed in tanks, 16 inches deep, 8 feet long and 4 feet wide, lined with the best of tin plate. Thus, a large surface is exposed to the drying influence of this warm atmosphere. As you extract your honey, have your tank covered over with cheese-cloth, and a strainer set in, made of wire, and cheese-cloth under the wire. For taking off supers, at the end of the season, he uses bee-escapes, putting them on in the evening and taking them off the following evening. They are especially useful to avoid robbing. When your combs are extracted, put eight in a box and place them no nearer than 150 feet from the yard, and have the bees clean them out. Put them out late in the evening, and leave out till next evening. Begin with three or four boxes the first evening, till the bees find their way; afterwards, you may put any number of boxes out. After all are cleaned up, they are ready to be stowed away for the winter. You are now ready to tin and crate your honey. Have your tins thoroughly dusted, and label all honey intended for market. Have the tins put up in attractive crates, and not in rough boxes as many do. Put dressed lumber in the crates; it is very important to have

your honey nicely put up.
In the discussion which followed the paper, the principal points criticised were the honey room, the bee-escapes, and the manner of having combs cleaned up by the bees. With regard to the honey room, it was decided that 120° is rather an uncomfortable temperature in which to work. It would also seem that in such shallow tanks the honey would lose as much in aroma as it would gain in specific gravity. If the honey were left until from three-quarters to all capped, and extracted on a drying day and canned up immediately, as good if not a better sample would be secured. In using bee escapes, the honey stands on the hive until it is cold before it is taken to the extracting room, and does not come from the combs nearly so freely as when warm from the bees. having bees clean up the extracting combs before storing for winter is all right, but they need not be carried 150 feet away nor set out a few at a time. Set them all out on the ground, amongst the hives, on a bright morning, and the bees will have them cleaned up and have quieted down before dark. You will be surprised at the stillness in the yard next day.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the Farmer's Advocate are answered in this department free.

2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest or which appear to be asked out of mere curiosity.

3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good

faith, though the name is not necessarily for publication. 4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies can-

Veterinary. CHRONIC MAMMITIS IN COW.

I bought a cow last fall which had a calf sucking her during the summer. Calf was taken away ner during the summer. Calf was taken away from her; then she was neglected. Her udder was somewhat caked when we got her, but not as bad as I have seen them. We milked her pretty regular during the fall and fore part of winter, and apparently her udder got pretty well cleared of clotted milk. She is due to calve on 12th July. Now she has been on grass for a few weeks her udder seems to be filling up again. In one teat, there was a small be filling up again. In one teat there was a small quantity of thick milk; what is not thick seems to be all right. Do you think her milk will be fit for use at calving time, and what would you advise us to do? I might say her milk has not dried up altogether all winter. GEORGE DAWSON. Muskoka.

[From symptoms given, I should say your cow has chronic inflammation of the udder, and it is probable you will have more or less trouble with her after she calves. The milk from quarters that give thick or curdled milk will not be fit for use; that from the other quarters will be all right. After calving, bathe the affected quarters well and often with warm water, and apply camphorated oil made as follows: To a pint of sweet oil add one-half ounce camphor, and place in a pot or pan of warm water (not boiling) until the camphor dissolves. Milk the affected quarters several times daily, and feed lightly, in order to not force the secretion of milk until the udder recovers its normal condition. If the pasture be good, it would be good practice to keep her in the stable and feed dry food, in order to check milk secretion, both before and after calving.

J. H. REED, V. S.]

BLACK-QUARTER AND ANTHRAX

To the Editor FARMER'S ADVOCATE: SIR,—On page 340, May 15th issue of the FARMER'S ADVOCATE, I notice "Subscriber's" enquiry about black quarter in cattle. I think the reply somewhat incomplete. The fact is, black-quarter and anthrax are two separate diseases, though both are highly infectious and resemble each other very much in their general character. There is no anthrax in this State, yet every part has an abundance of black-quarter, on the mountain pastures, which is being successfully prevented by vaccination. This office sends out from 10 000 to 15 000 doses appreally of vaccine from 10,000 to 15,000 doses annually of vaccine, and the demand is increasing. I believe there is considerable anthrax in Delaware, brought there in skins imported from the South for special manufacture. Blackleg is confined to cattle and sheep, but the latter are scarcely ever attacked, while anthrax attacks all animals, even man. The flesh of affected animals is unfit for food, and should be burned, in the case of each disease. Both diseases are fatal.

JOHN SPENCER, V. S. are fatal. John Spencer, Virginia Agricultural Experiment Station.

LAME HORSE.

Please give me a cure for a bad sprain in hip oint of horse, which happened about a week ago? It is now running a watery matter at the rump. He can hardly put foot to the ground.

York Co., N. B.

WM. MURPHY.

[It is very hard to say just what is the matter with your horse. A sprain of the hip joint is very rarely seen, and when present does not cause an escape of watery matter as you state. I am inclined to the opinion that your horse has received a severe bruise, or else has been penetrated by some foreign substance, as a prong of a fork, a stick, or something of that sort. If the escape of matter mentioned be from an opening in the skin, the hole should be carefully probed, in order to see if any foreign substance is in it, and if so, it should be removed and the opening flushed out with warm water, and a solution of carbolic acid, one part to fifty of water, injected three times daily. If no foreign substance be found, treat as above. If the matter mentioned is an effusion from the skin, without any opening, bathe well with warm water, and apply the carbolic solution to the surface. If it should be as you suspect, a sprain, all you can do is to apply heat, as the joint is so deep seated liniments have little action. Feed on bran and grass, and if he has difficulty in getting up, place him in slings. Keep as quiet as possible.

J. H. REED, V. S.]

LEAD POISONING: PLUMBISM.

Can there be anything done for a cow that has eaten white-lead paint, also tea lead? I have lost three which have eaten tea lead. We gave them raw oil and salts, ginger and soda, but did no good. The raw oil went through her all right, but never F. K. M. jarred the tea lead.

York Co., N. B. [Animals eating a sufficient quantity of white lead will suffer from plumbism - lead poisoning. Lead in its metallic state, as it is in tea lead, as a rule does not produce the physiological symptoms, but if tea lead were eaten in small quantities for a considerable length of time it is liable to become oxidized in the system, taken up by the absorbents and produce the same symptoms as the various compounds of lead. Large quantites of tea lead eaten at once would not be likely to act this way, practically insoluble. would act foreign body in the stomach and might cause sickness and death by mechanically obstructing the di-gestive passage. The symptoms of plumbism are, gestive passage. the digestive functions become impaired, the appetite capricious, sometimes entirely gone, at other times voracious. Along the margins of the gums a gray or blue line appears. Constipation and colic sometimes present. Paralysis and wasting of the various muscles, both voluntary and involuntary. The blood contains an excess of water. Nutrition generally is impaired, and epilepsy, convulsions or coma usually appears towards the latter stages. There is usually a rough, staring coat, and a tucked-up appearance of the abdomen. Cases of cows poisoned by eating tea lead are reported in which the symptoms were as follows: Failure of milk and appetite, grinding of the teeth, and dullness, the head rested against any convenient object, the eyes nearly closed and little sensitive to the light or touch, gait week and tottering; whilst for an hour or two at a time, the cows, although persistently standing on their hind limbs, went down on their knees, propping themselves against the wall. The cases survived four or five days. Treatment in acute cases is not often successful. In cattle no good results from emetics, and the stomach pump is little better. The most convenient chemical antidote is sulphuric acid, about 2 ozs., well diluted with water, about every 6 hours for 4 or 5 doses; or a soluble sulphate, as Epsom salts, about 2lbs., dissolved in 2qts. warm water; this acts on the bowels and converts the unabsorbed lead into the insoluble white sul-phate. Iodide of potassium also acts well; it pro-duces an insoluble salt and hastens the elimination of the absorbed poison by the kidneys; it should be given in 2-dr. doses, every 5 or 6 hours for 4 or 5 doses. Any of these antidotes acts better if diluted with milk, mucilage or eggs, which form insoluble albuminates with lead salts. If much pain be exhibited, opium in 2-dr. doses, repeated every 4 hours if necessary, should be given.

J. H. REED, V. S.

AN EQUINE MONSTROSITY.

I have a colt two days old. It has a fifth foot growing from the inside of the left front leg. freak originates at the knee on the inner aspect. There are two cannon bones growing together. The foot hangs detached about four inches. It extends about two inches below the pastern joint, and curves toward the tuft. It is composed of bones the same as another foot. Could it be removed successfully by taking it off at the coronet? I have been taking your paper for over two years, and am pleased to say that I find much valuable information in its columns. C. McMillan.

Wellington Co., Ont. [It is quite probable the extra limb could be successfully removed by an operation, but the limb will always present the marks of the operation and in all probability considerable enlargement. It is impossible, without seeing the case, to say just what the result of an operation would be, as it will depend upon the manner in which the extra limb is attached to the other. The colt might be more valuable as a monstrosity than it would be after an J. H. REED, V. S.]

REPEATED ATTACKS OF GARGET.

I have a fine Durham cow twelve years old-a first-class stock cow, in calf. About two months ago she became swollen very suddenly in one quarter of her udder. I gave her salts, and used camphor oil on udder. She was all right in a week, and until two weeks ago, when she became just the same in one other quarter. I treated as before. Could get very little milk from affected part. Quite large, stringy, mattery substance came from that teat. She was all right again in a few days, but now is affected in other quarters. She was all right last night, but this morning part is swollen years hadly. Seems stiff in hind quarters and does very badly. Seems stiff in hind quarters, and does not feed well. Her udder seems very sore. She is on pasture now, with meal ration. When she was stall-fed her feed was ensilage and oat chop night and morning, with oat straw three times a day. Can you tell me, through your valuable paper, the cause and the cure? Is it any complaint that would affect other cows in same herd? I read Questions and Answers in ADVOCATE, and get a great deal of information from it. I could not great deal of information from it. farm, it seems to me, without your valuable journal. Ontario Co., Ont.

[The inflamed condition of the cow's udder, known as garget, is caused by exposure to cold, over-secretion, injuries, etc. It is probable the cold and damp condition of the ground had something to do with this last attack. The treatment given in the former case proved good, and, therefore, should be repeated in this case. In addition to the salts and camphor ointment, the udder should be repeatedly bathed with warm water, in which the hand can be horne. She should be which the hand can be borne. She should be milked out frequently, and kept in a well-bedded, dry stall, except for a few hours each day, until she has recovered and the ground becomes warm. She should have no grain food, except bran mash along with grass. The trouble is not in any sense contagious or infectious, so that there is no danger of it attacking the other cows because of this case.

MALADDRESS AND UDDER TROUBLE.

1. I have a 3-year-old heifer which came in season about seven weeks ago, and I turned the bachelor in the yard with her, and since that period she has gone down and can hardly walk. For about three weeks after she went to the bull she was straining very bad and was trying to put out her rectum. She still strained and passed some blood. For the last three weeks she seems not to be able to make her urine right, and has her back humped up. She seems as if she cannot eat hay at meals this last

few days, and she will eat nothing but grass.

2. I have a cow that gives thick, clotted milk; has done it at times all winter. What is the cause, and what can be done to stop it?

3. I have another cow, and she has little lumps in her teats. She is a good cow, and I would like to know what would take the lumps out and do the cow no harm? Joseph Pearn. Victoria Co., Ont.

[1. The symptoms your heifer present are caused by maladdress by the bull, and it is probable death will be the result. Accidents of this kind cannot be avoided. Address may have taken place in the rectum, or the neck of the bladder may have become injured. If she still will eat grass, allow her all she will take. Give 4-dram doses hyposulphite of soda three times daily, shaken up with half a pint of cold water. Allow cold water to drink. Inject into the vagina, three times daily, about 4 ozs. of the following: One part laudanum and eight parts water. If she will not eat anything, she must be drenched with linseed or oatmeal gruel. If she should get better, do not give her another introduction to the "bachelor" for six or eight months.

2. This condition of the milk is due to inflamma-

tion of the udder, to which your cow appears pre-disposed. Give purgative of 2 lbs. of Epsom salts, bathe the affected quarter long and often with warm water, and milk it four or five times daily.

3. If the lumps mentioned do not prevent the milk from escaping, leave them alone. If you cannot get the milk from the teats, an operation by an expert with an instrument made especially for the purpose will probably effect a cure, unless the lumps are quite high up in the teats, in which case an operation would probably cause inflammation and do harm.

J. H. Reed, V. S. J. UNTHRIFTY JERSEY BULL.

1. We have a year-old pure-bred Jersey bull that sucked a cow for five months. He looked fine for a while after, but soon after weaning he got in the habit of chewing the manger boards and all the wood around him, and he ate very little food, so we gave him a dose of salts and 1 cupful of blackstrap. He got somewhat better, but he keeps chewing wood yet. What does he want? We feed him ensilage, cut straw, oat chop and roots. Do you think it right for a calf to suck a cow five or six months?

2. What kind of a tonic would you recommend

to give fat cattle a good appetite all the time?
3. What is the best veterinary book to help a stockman?

J. W. F. stockman: Halton Co., Ont.

[1. The cause of your bull eating wood, etc., is probably due to a want of phosphates. Give him all the salt he will take, and a little pulverized bone in his food will benefit him. Change his diet for a while; feed on grass or good clean hay, and a little chop composed of 4 parts oats to 1 part peas. In changing the food, do not make a sudden change, or you may cause digestive trouble. It is all right for the calf to allow it to suck the cow until 5 or 6 months old.

2. Fat cattle, when healthy, do not require tonics to give them appetites; in fact, they are much better without, as they will eat all their digestive organs

3. It is hard to advise you as to the best work on veterinary science for a stockman. Probably the best is a work by Arthur G. Hopkins, D. V. M., entitled "Veterinary Elements," which can be procured through the editor of this journal.

J. H. REED, V. S.]

INVERSION OF UTERUS IN COW, I have a cow which carried her calf over time. During the last two weeks she strained at intervals, increasing in severity as time passed. The neck of the womb remained tight until the twenty fourth day over time, when she gave birth all right. Half an hour later the calf-bed came away. We replaced it and put slings under her to keep her on her feet, as she continued to strain as long as she was lying. She took a warm gruel feed and chewed her cud. raised her hind quarters and put on a rope truss as described in your issue of Feb. 1st. Twenty-four hours later she threw herself on the slings and showed every symptom of being in pain. down into easy position and washed out the parts which were still much swollen) with warm water and carbolic acid. Since then she lies most of her time, but eats and milks well. Did we give proper treatment, and is danger past? Two of my neighbors have lost cows from the same cause this spring.

Algoma District, Ont.

B. L. W.

It is very exceptional for a cow to carry her calf twenty-four days longer than the normal period of gestation, but it occasionally occurs. The proper reatment for inversion of the uterus is to thoroughly cleanse the womb, remove all particles of the after-birth and wash the organ with a good antiseptic, say carbolic acid one part, water one hundred parts, then carefully return it by inserting your hand and arm; get it into as nearly a natural position as possible. Then means must be taken to prevent its reinversion, but she should not be placed in slings, as when she rests in the slings her whole weight comes on the abdomen, and this tends to a recurrence of the accident. It is good practice to put a couple of sutures of soft strong suture silk through the lips of the vulva and then apply a truss. Tie her in a narrow stall; build with straw or other so that her hind parts whether she standing or lying, will be considerably higher than fore end. Leave the truss on until straining ceases, and leave the stitches in a few days longer. unable to say whether all danger is past with your cow. Danger is not past until the uterus contracts and straining ceases. If still straining, inject into the parts one part laudanum, forty parts water.

J. H. REED, V. S.]

Miscellaneous.

FARMER'S FRIEND — FERTILIZER FOR BUCK-WHEAT — BOOK ON CARPENTRY.

Inclosed find \$1.00, being my renewal for ADVO-ATE, which paper is indeed the farmer's friend. What kind of fertilizer would be best to use as a top dressing, on rather poor clay soil, for buckwheat that I intend plowing under:

2. What would be the best food to give sheep intended for exhibition?

3. Can you give me name of a good book on carpentry?

JOHN W. McDONALD. Pictou Co., Nova Scotia.

[1. Freeman's Fertilizer, sold by Chas. A. McDonald, Poplar Grove, Mabou, C. B., should be a safe and profitable fertilizer to use on buckwheat.

2. The writer has found oats, 3 parts; peas or corn, 1 part, and oil cake, 1 part, fed twice a day, a good grain mixture for fitting sheep. It should be fed carefully, at first one quart to three, and gradually increased to about two quarts for three sheep as the season advances. Never give more than is cleanly eaten, and always in a clean trough. The sheep should have frequent changes of green feed of the sorts they relish. They should be kept in a cool pen during hot days, and allowed their liberty in a good pasture at nights. They should have access to fresh water and salt at all times, and should be constantly free from ticks.

3. Carpenters and Joiners' Handbook, by H. W. Holly (price, 75 cents), is a useful work for mechanics and amateurs. It can be had through this office at the regular price.

FEEDING CHOP TO HORSES.

Will any reader of the ADVOCATE tell me if feeding chopped grain to horses is good for them when working hard? I am working mine on tread

Hastings Co., Ont.

[Except for roading, chopped oats are preferred to whole ones for working horses by most farmers who study economy in feeding. The chopped or crushed grain seems to go farther, because it is all digested instead of being passed unbroken. Whether whole or crushed, it is well to mix a horse's grain with cut feed or chaff, which induces mastication and therefore more thorough digestion.]

WARBLES IN CATTLE LANGSTROTH HIVE RAISING PHEASANTS.

Can you tell me the cause of warbles in cattle. and a means of preventing them?
2. What are the dimensions of the Langstroth

hive, and where can such be bought by the dozen, ready to put together?

3. Can you tell me if pheasants are a valuable domestic fowl? Are they as valuable or as easily raised as turkeys? raised as turkeys:

Grenville Co., Ont.
[1. Warbles found in the backs of cattle in the spring of the year are the larvæ of the warble-fly from eggs deposited in the skin during the previous summer. The maggot, after hatching, lives head downwards, its breathing pores being situated in the tail, which projects to the surface. In January or February, the grub can be detected in the backs of the animals, and, on close examination, a small opening can be noticed. A little far and grease or black oil rubbed into the opening kills the maggot by blocking its breathing pores. The earlier this is done in the season, the better it will be for the animal. To prevent fly-attack in summer, train oil, rubbed along the spine and a little on the loins and ribs, has been found useful. Cattle treated through the summer with any of the modern horn-fly mixtures The maggot, after hatching, lives head summer with any of the modern horn-fly mixtures will not be troubled with the warble-fly

2. Langstroth hives are made in different sizes and sold in quantities by the Goold, Shapley & Muir Co., Brantford, Ont.

3. Pheasants are by nature wild, which makes

them difficult to raise and retain in domestication. With suitable equipment, and an understanding of the birds, they can be successfully reared in properly-arranged aviaries. When reared, they are fairly hardy, but they can never be allowed their liberty, as their wild nature asserts itself, and off they go. Attempts have been made to stock game reserves with pheasants, but with very indifferent success, so far as we have been able to learn.]

BEST HORSE SIRES TO USE.
While reading over the account of the Toronto Horse Show, in your issue of May 15th, it occurred to me that, as the breeding season was now upon us, and we farmers are on the lookout for the most suitable stallions to produce high-class harness or saddle horses, a few pointers as to the best sires to use to produce this most desirable class of horses would be highly appreciated. As a means to this end, I think, if your space would permit it, and the information could be secured, that by publishing the edigrees of the winners in say carriage or coach and the various classes of harness and saddle horses at Toronto and Montreal, stating breed of sire (which in most cases, I presume, are pure-bred, whatever breed they represent), you would be doing a great service. consider that by this means of comparison, a very good idea might be obtained by our farmers as to

the most suitable sires to use to procure this most salable class of horse.

Subscriber, Que. [Unfortunately, it is not always possible to learn the breeding of horses shown either in harness or under the saddle, because in many cases the animals are shown, not by their breeders, but by dealers or others who have purchased them on account of their individual excellence. We are safe in saying, however, that for a number of years the sensational harness horses shown at the Toronto Horse Show have been by Hackney sires. In 1897, the gelding, Diamond Jubilee, by the Hackney stallion, Jubilee Chief, was unbeaten in several contests; in 1898, Blucher, by the Hackney, Lord Roseberry, repeatedly defeated his rivals at important American as well as Canadian shows. In 1899, Glenalda, by Lord Roseberry, and Glenaldyne, by Lightning, were favorites, but a trotting-bred horse, The General, was the outstanding harness-horse of the Horse Show that year. In 1900 and 1901, the black mare, South Africa, by Jubilee Chief, was invincible. It is true that the gets of trotting sires have won distinction in high-class harness contests, but when it is remember that comparatively few Hackney stallions have done stud service in Canada, the achievements of their offspring speak well for their suitability as sires of high-class harness horses. We would direct the attention of "Subscriber" to an article on carriage-horse breeding, by Wm. West, in our issue of Feb. 15th, 1901, page 116. Regarding the breeding of saddle horses, we believe it has been the great exception for the gets of any other than Thoroughbred sires to win prizes at the leading horse, shows of Canada or the United States. It is not enough, however, in deciding to use a certain horse, to know that he belongs to a certain breed. A good Standard-bred or Coach horse should have the preference over a poor Hackney or a Thoroughbred, or vice versa, rather than allow a good mare to go unbred. It is a good rule to follow the advice given in our article on "Selecting Stud Stock," May 15th issue: "A mare that inclines to any particular desirable type, whether it be draft, roadster, saddle or carriage, should be bred to a stallion of the same breed as her sire," etc.]

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FISHING IN CLOSE SEASON.

Can a person having a small lake on his own legally catch fish therein during what is called the "close season"?
Oxford County, Ont.

[If fish in such lake are propagated and preserved by him, it would seem that he can legally fish there as suggested.]

APPORTIONMENT OF LINE FENCING.

A owns 50 acres; B owns 50 acres adjoining. Each kept in repair 50 rods of the dividing fence. B sold 40 acres to C, leaving 20 rods of fence between himself and A. B repaired the 20 rods, and C the 30.

1. Can B force A to build or repair the half, or 10 repairs the 20 rods, when it again produit? rods, of the 20 rods, when it again needs it? 2. If so, can A then force C to build or repair 10 rods of his (A's) 50 rods?

Durham Co., Ont.

[1. Yes. 2. Yes.]

CEMENT SILO POINTERS.

As we are about building a silo, and it is our first venture in this line, you would oblige me very much by giving an estimate, in your valuable journal, of the cost of a silo to hold ten acres of corn, and the amout of cement it would require to build a round wall? Also the right proportions to mix a good JAMES MOORE. What is the right thickness to make the

Elgin Co., Ont. [A round silo 15 feet or a square one 16 feet in diameter and 30 feet high should hold ten acres of average fodder corn. If the silo were constructed two months before being filled, walls 16 inches thick at bottom and 12 at top would be heavy enough, but if it had only one month to harden before filling, it should be 18 inches at the bottom and 14 at the top. This size would require about 60 barrels of Queen ston or Thorold cement, mixed with five times as much clean sharp gravel, and as many field stones as can be worked into the wall. Pamphlets are issued by the makers of these cements, giving full instructions in building cement structures. Former issues of the FARMER'S ADVOCATE have given detailed information for doing this work. In building a silo or a cement wall of any kind, from two to three raises 12 to 16 inches each day can be reade raises, 12 to 16 inches, each day can be made. Two men can do this at first, but four or more can work with advantage as the work proceeds. Farming or other work should be going on in conjunction with the silo construction, as not more than a third of each day would be needed to make the raises in the silo walls.]

SATURATED LIMEWATER FOR THE PRESERVA-TION OF EGGS.

Now that the eggs are cheap, I would like to preserve some, so as to be able to keep them till the price is higher. If you know any recipe for that purpose, would you kindly give it through the ADVOCATE, and oblige.

A SUBSCRIBER.

Colchester Co., N. S. [The solubility of lime in water, at ordinary temperatures, is one part in 700 parts of water. Such a solution would be termed saturated lime-Translated into pounds and gallons, this means 1 pound of lime is sufficient to saturate 70 gallons of water. However, owing to impurities in commercial lime, it is well to use more than is called for in this statement. It may not, however, be necessary, if good, freshly-burnt quicklime can be obtained, to employ as much as was at first recommended, namely, 2 to 3 pounds to 5 gallons of water. With such lime as is here referred to, one could rest assured that 1 pound to 5 gallons (50 pounds) would be ample, and that the resulting limewater would be thoroughly saturated. The method of preparation is simply to slake the lime with a small quantity of water, and then stir the milk of lime so formed into the 5 gallons of water. After the mixture has been kept well stirred for a few hours, it is allowed to settle. The supernatant liquid, which is now "saturated" limewater, is drawn off and poured over the eggs previously placed in a crock or water-tight barrel. As exposure to the air tends to precipitate the lime (as carbonate), and thus to weaken the solution, the vessel containing the eggs should be kept covered. The air may be excluded by a covering of sweet oil or by sacking upon which a paste of lime is spread. If after a time there is any noticeable precipitation of the lime, the limewater should be drawn or siphoned off and replaced with a further quantity newly prepared. It is essential that attention be paid to the following points:

1.—That perfectly fresh eggs only be used.

2.—That the eggs should, throughout the whole

period of preservation, be completely immersed.

Although not necessary to the preservation of the eggs in a sound condition, a temperature of 40° F. to 45° F. will no doubt materially assist towards retaining good flavor, or, rather, in arresting that stale flavor so characteristic of packed eggs. Respecting the addition of salt, it must be stated that our experiments, conducted now throughout three seasons, do not show any benefit to be derived therefrom; indeed, salt appears to impart a limy flavor to the egg, probably by inducing an interchange of the fluids within and without the egg. Water glass (sodium silicate) has been extensively experimented with, using solutions varying from 2% to 10%. though, in the main, the results have been fairly satisfactory, we are of the opinion that limewater is fully its equal, if not its superior, as a preservative, and that this latter preservative is both cheaper and pleasanter to use there can be no doubt.
FRANK T. SHUTT, M. A., Chemist.

Dominion Experimental Farms.

COOKING ROOTS FOR HOGS.

I would like to know, through your paper, what you think of cooking pig feed by steam. I have an engine and grinder and root pulper. Would it be advisable to cook roots with chop? Please answer and oblige a subscriber.

W. J. F. and oblige a subscriber.

[Repeated tests of cooked as compared with raw roots for hogs show little or no advantage in cooking, except in the case of potatoes, which when fed raw give very poor returns. One advantage in cooking roots is found in having warm feed to use, especially in very cold weather. This applies especially to young pigs. We find many well-doing hog-feeders using feed cookers for pumpkins in the When the feed is almost cooked, a bushel or two of chop is dumped in and mixed thoroughly. The feed is then covered and allowed to stand until cool enough to feed.]

MARE WILL NOT BREED.

My 2-year-old mare has been bred two seasons before this present one, and I cannot get her with The first year I bred her she was fat, the second she was thinner, and now she is poor. I bred her this year, late in April, to a young horse. If she fails to conceive, would you advise me to bleed

Stormont Co., Ont.

We would not advise bleeding the mare nor further reducing her flesh. As a rule, a mare is most liable to conceive when in a thrifty condition, evidenced by a soft condition of the skin and good feeling. We would recommend that the mare be allowed a couple of weeks' run on good pasture, and receive in addition 3 quarts of oats twice daily. If her uterine organs are in healthy, normal condition, and she is bred to a sure horse, she should get in foal without difficulty.]

BUTTER FROM SCALDED CREAM.

During the past winter I have been making "Devonshire" butter. Not having enough milk for creamers, I have made butter in the following manner: Let the milk stand twelve or eighteen hours to let the cream rise without allowing the milk to become sour, then place the pans on the stove till the milk is scalded. Set them in a cool place till the cream is cold and can be taken off the milk. Then stir the cream for a few minutes and the butter comes with very little work. I find this manner of making butter is very much easier than churning the cream as I have always done. butter made in this way keep through winter if packed for winter use? I always put down butter in June and September for winter use.

The scalding of cream for buttermaking materially improves the keeping quality of the butter, because the heating destroys ferment germs. One of the most important conditions in the making of this butter is that the cream be effectively cooled immediately after the scalding, to a temperature below 50 degrees Fahr. The butter should be washed free of all curdy matter after being chured at a low temperature; it should then be firm and

GREEN RYE FOR ENSILAGE.

I notice an item in your issue of May 1st regarding green rye, which, if I understand right, will upset my calculations for this summer. We have a lot of rough land fit only for pasture, and a little smooth land to crop, and a lot of cattle. Last year I cut the rye green, and drew it in for feed, but when ready to coil up it rained, and before I got it into the barn was all bleached out. This year I want to cut and fill my silo with it, so that I can feed it out in the summer to the cows when the grass fails. Will the rye in this way taint the milk for a cheese factory? Will rye silage be all right? for a cheese factory? Will rye silage be all right? If not for cows milking, will it do for young cattle and dry cows in the winter? We manure heavily, take off the rye and a crop of corn. We had 117 tons of corn from about seven acres so worked. The object is the most feed from the least acres. I am trying to farm under the guidance of your valuable GEORGE EMBLETON.

Peterboro Co., Ont.

In reply to your enquiry regarding rye silage, I beg to say that rye was put in our silo only once, and that was in Prof. Shaw's time. It seemed to keep fairly well, but the stock did not seem to care for it, and the greater part of it was wheeled out on the manure heap in the fall. It had a rather disagreeable odor, but I do not remember that there was trouble from tainting milk. If fed in moderation, I do not think there would be serious danger from taint, though I do not regard it as a satisfactory silage crop, and would not recommend it for that purpose.

O. A. C., Guelph. Professor of Agriculture. NOTE. -According to the views of many good farmers and dairymen, and our own experience, green rye has very little value as food for stock in any form, except as pasture in early spring before grass pasture is fit to use. In that case stock will relish any green crop, and the rye gives them a start to thrive after getting dry feed. It is in this green state, however, that it taints milk, if the cows are allowed to eat large quantities of it. Rye ground pastured off in this way is frequently plowed in preparation for a hoed crop of some sort. We would suggest that as soon as convenient Mr. Embleton should construct a separate silo, 10 or 12 feet in diameter, for summer feeding, and grow sufficient corn to fill it as well as the winter silo, as in that way he will get a cheap food of a suitable nature for feeding all classes of stock.—ED. F. A.]

COLT IN LOW CONDITION.

1. I have a pure-bred Clyde stallion one year old which I intend keeping for breeding purposes. Last October he took the strangles very badly, before weaning, and got very poor. In December he took very bad with lice, his hair falling off parts I destroyed the lice, and he has been of his body. doing well since. Will this low condition affect his

2. What would be the proper kind of feed for such a colt?

3. Would you recommend letting him out at night on good pasture and bringing him in during the day and feeding oat chop and hay? Carleton Co.

[1. The setback that the colt has had will no doubt show its effects for a couple of years, but if he is from a vigorous parentage and thrives well from now on, he should overcome the stunt he has experienced, and mature into almost, if not quite, as large a horse as though he had always done well.

2. Grass, oats and cows' milk should build him

3. We would allow him the run of a good pasture both day and night until the heat and flies become troublesome, and then house him during the day. He should have a manger in his pasture and receive a liberal feed of oat chop mixed with a little bran twice a day. When the pasture becomes dry he should have boiled oats once daily. If he can be induced to take cows' milk, a pailful every morning will send him forward rapidly. Whole milk would make the best showing, sweet skim milk will help, while half a pail of each would probably pay best. A colt can usually be taught to drink milk when housed by withholding water for half a day or more.

SOFT PIGS-SOWS EATING PIGS.

Our sows are commencing to farrow. The pigs come soft and without much hair on them. Two young sows commenced to eat their pigs as soon as dropped. They have been fed roots, chopped barley, and water, and have had plenty of exercise.

1. What is the cause for pigs coming in that

condition?

What will stop a sow from eating her young? aterloo Co., Ont.

NEW SUBSCRIBER. Waterloo Co., Ont.

These questions have been asked in former years, and are difficult to answer with any certainty or satisfaction. There is no reference to the first trouble in any of the books we have read on the management and diseases of swine, but we know from experience that it occurs occasionally in spring litters. We have never known a case of it in summer or fall litters, and the opinion is generally held that it is owing to lack of exercise of the sows in winter, and to their being too well fed or having too sloppy food. The fact that it does not occur in summer litters, when the sows have ample exercise and access to grass and grit, would seem to confirm that opinion; but, apart from this, the theory of the sows being too fat does not hold good, when we know that excessively fat show sows not infrequently bring strong, healthy litters, as we have sometimes witnessed on the fair grounds. The only difference is that these have had more or less access to the ground and to grass. On the other hand, it is well known that, as a rule, spring litters come all right where sows have been liberally fed, as well as when kept thin, and the only inference is that the winter conditions should be made as nearly like those of summer as the circumstances will permit. This would lead to giving attention to providing for outdoor exercise, access to sand or gravel, or to wood ashes or charcoal as a substitute. leaves, or cut clover steamed and mixed with bran or meal, or fed raw mixed with pulped roots, would serve in a measure as a substitute for grass, and balancing the ration. If sloppy food is thought to have anything to do in producing the trouble, the feeding may be varied by scattering a few peas or a little corn on the ground where exercise will be compelled in the search for it.

he want of grit may account for the tendency in the sow to eat her young, and, if so, this may be obviated by supplying ashes, gravel, etc., during the term of pregnancy. This may also prevent the term of pregnancy. This may also prevent the morbid appetite which induces a sow to eat her pigs. We have frequently noticed that when the pigs come soft and short of hair, the sow has gone several days past the limited period of gestation, and that the side teeth of the pigs have grown long and sharp, and if they have strength enough to attempt to suck, these sharp teeth prick the inflamed udder and cause such pain to the sow that she springs up and in desperation seizes a pigling with her mouth, and, tasting blood, is led to devour her young, and thus acquires the habit. This may be avoided by preaking off the overgrown teeth of the pigs with a small pair of pincers. Indeed, it is well to examine every litter when born, and, if necessary, perform this operation. In some instances these teeth will have become discolored to an extent which has led to the common saying that "pigs born with black teeth never do well." The food of the sow previous to farrowing should be of a laxative nature, keeping the bowels active, as otherwise constipation may have the effect of producing the abnormal appetite which prompts her to eat her young. We have heard it suggested that giving the sow some salt fat pork may satisfy her craving and put a stop to her

cannibalism.

Will turnips or mangolds keep as well in a dark cellar as in a light one, provided the ventilation is the same in both cases. NOAH STOUFFER. Ontario Co., Ont.

With proper ventilation and covering, there is no better place to keep roots than in a pit, which is as dark as blackness at all times. Light or dark has no perceptible influence on the keeping of roots, but temperature and moisture have. If stored dry and kept dry and cool, there is seldom any loss.]

TWIG BLIGHT IN APPLE TREES.

I send you two pieces of one branch of apple tree having some kind of blight, which starts (by appearance) in a small spot on bark of tree, passing through an opening in bark, and kills the wood of tree. The bark continues to grow on about half of branch, forming new wood, leaving one side of branch open, showing the old wood to be dead. Kindly state name of this blight, also a cure. It is not trunk of tree, but does not seem to make as on trunk of tree, but does not seem to make as great headway as on branches. I enclose a worm got out of one of the holes, and I noticed on bark
F. R. GRAHAM. a small red louse.

Victoria Co., Ont. [Twig blight (sometimes known as fire blight) is more generally found attacking pear trees, but it also does damage to apple orchards. It is a disease caused by a germ (not an insect) known to science as Micrococcus amylovorus. It causes the foliage to turn to a uniform brown, sometimes in two or three days, giving the tree an appearance of being scorched by fire. The bark of the affected tree becomes sunken and brown. The germ enters the tree through the blossoms and also through the growing tips, or it may enter a branch at a bruised or open place in the soft bark. The injury may be local or extend to the entire tree. known remedy, and the only way to check the disease is to cut out all the affected parts a foot below the lower point of injury, and burn. These diseased parts are full of germs that, if not burned, will become scattered and increase the trouble. It is well to spray thoroughly with Bordeaux mixture soon after the blossoms fall and every ten days afterwards for four applications. The insect found in the affected part or the red lice seen on the bark had nothing to do with causing the disease.

SHOWS AND SHOWING.

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Sherbrooke, Qu Toronto (Indus London (Weste Ottawa (Canad Halifax, N. S... Sept. 14 to 21
Sept. 24 to 27
Oct. 1 and 2
Oct. 8 to 10 UNITED STATES.

Gold Medals for Ottawa Fair. Mr. E. McMahon, Secretary for the Central Canada Fair, Ottawa (Sept. 13-21), has just completed a list of the special prizes offered by the several patrons for the fair of 1901. The list contains no less than twenty-seven gold medals, eight money prizes, and two silver medals. This is a larger list of special prizes than has ever been offered at the fair before. Most of these beautiful and valuable trophies are for live stock. Among them there is given a money prize and cup or medal, by His Excellency the Governor-General, to encourage the best class of riding horse, for three-year-old colts or fillies, by an approved Thoroughbred stallion. There is given \$75 by Dr. W. Seward Webb, of Shelburne, Vt., and the Central Canada Exhibition Association, for Hackney stallion with three of his get, the gets to be from unregistered mares. The W. W. Ogiler W. W. Ogiler Stalling Co. given a gold model for the hear golds between get, the gets to be from unregistered mares. The W. W. Ogilvie Milling Co. give a gold medal for the best saddle horse shown. A gold medal is given by W. West, Shelburne Farms, Shelburne, Vt., to the person showing the most skill in exhibiting horses "in hand" and with the "lead rein 'in the judging ring. The Dominion Shorthorn Breeders' Association give \$100, divided into various prizes. The manager of the Hotel Cecil, Ottawa, Mr. G. H. Genslinger, gives a gold medal for best herd Hereford cattle, and W. C. Edwards, M. P., a gold medal for exhibitor from Russell Co., Ont., winning largest number of prizes in "ladies' work, useful." For full particulars re these medals, etc., write Secretary McMahon for prize list.

MARKETS.

FARM GOSSIP.

Niagara Fruit Outlook.

The fruit outlook in the Niagara, Ont., district is very fair, and there appears to be no damage from frost. Mr. Geo. E. Fisher, Provincial San José Scale Inspector, who has spent some time in that locality recently, says the apple and peach trees have a light bloom, no doubt owing to the heavy crop of last year. In the case of plums, pears, cherries and strawberries the crop promises to be exceptionally heavy, at least so far as can be judged from the blossoms. Mr. Fisher says the scale keeps turning up at new points, but the people are commencing to look at the pest in a more rational light, and are using the spray with more liberality. A very considerable quantity of peach trees are being planted in Niagara township this year.

P. E. Island.

P. E. Island.

It has been a very favorable season here for getting the crop in. The weather has been fine, with occasional showers. Our season is about two weeks ahead of last, and the grafter crop is most all sown at this date. Grass is doing finely, and cattle can already get part of their feed in the fields. There is a great appearance of clover on the new meadows, and the prospect for a heavy hay crop is bright. Our cheese factories will open in about ten days. Four new dairy stations have been built this year. There is quite a lively demand for good horses here, and many are being shipped to other provincial markets. Horse-raising is coming to the front again, after being to a large extent neglected during the last ten years. Fat cattle are still quite plenty, and are being forwarded to market, mostly at Sidney. Prices: Beef is selling at from 4c, to 44c, potatoes, 18c, to 20c,; hay, 810; butter, 22c.; horses, \$80 to \$120; milch cows, \$25 to \$35.

May 22nd, 1901.

Wentworth Co., Ont.

Seeding was finished in good time and condition in Beverly township. Fall wheat is in rather poor condition, especially Turkey Red, which variety we had to plow up. Turkey Red wheat may do well in some localities, but it is a failure about W. C.

Lanark Co., Ont.

Lanark Co., Ont.

We have had a lot of wet weather this spring, and, consesequently, some of the crop has been late going in. Some low land is not sown yet. There have been so few dry days lately that the farmers have not been able to get some of their planting done. The grass has been growing very rapidly, and the cows are milking well. Most of the cows came through the winter looking well, as there was a pretty good supply of feed. Hay was not very abundant, and is worth from \$10 to \$12 a ton. If farmers around here had been depending on the hay very much for feeding, there would probably have been a serious time. Ensilage is one of the principal foods for cattle here. Grass has come through the winter very safely, and the prospects now are for a good crop of hay. The farmers of this section seem well satisfied with the business of last year, and, although cheese does not promise to be quite as good this year, with pork the price it is we are looking forward to another fairly good season. Hired help is hard to get, and some have to pay as high as \$22 and \$23 a month to men for the summer. Horses are a good price, and are rather scarce. There was a buyer in this section looking for some for South Africa. He found it rather difficult to get horses of the proper style.

Lanark Co., Ont.

R. K. J.

Kent Co., Ont.

Kent Co., Ont.

The weather during the past month has been quite cold and backward, being particularly cold after every rain, and we have had many. About a week or ten days ago we experienced two severe frosts, which damaged the fruit considerably, particularly strawberries. It is hard to tell the extent of the damage yet. The weather turned warm to-day, after a heavy rain, lasting all day yesterday (20th), and everything looks lovely as the result. Fall wheat has weathered the winter and fly fairly well, and will make a fair crop. Spring-sown grain would come along with a rush with warm weather and warm rain. The hay crop is grand. There will be a large acreage of corn this year, and it is pretty well all planted. With hogs at \$6.50 per cwt., live weight, it is strong inducement to a great many to make hogs and corn their high cards the present season. Our only fear is that this branch of farming will be overdone. The cool weather caused the pasture to grow more slowly, and consequently it seems to contain more body and nutriment, as cattle fatten so rapidly upon it as to be quite noticeable. Our dairy herd is milking as never before, and gaining in flesh at the same time. The horn fly has made its unwelcome appearance, and is increasing rapidly. Butter has dropped to 15 cents per pound and lower. Eggs, 10 to 12½ cents per dozen. Fowls are up to 35 and 40 cents for chickens, other fowls unobtainable. Potatoes, 25 cents per bag. Various grains are all unchanged in price. An era of prosperity and good times has certainly struck these parts, if the scores of new carriages to be seen throughout the country and the wagonloads of new machinery that farmers are constantly drawing home are any indication.

Oxford Co., Ont.**

Oxford Co., Ont.

Oxford Co., Ont.

We have now had a superabundance of rain, and the crops on the lightish dry land are looking very well; but some of the spring grain on the low-lying, undrained land looks a little yellowish and sick-looking. I am more convinced than ever that it does not pay to work low, wet land that is not underdrained. Far better borrow money and have it underdrained. There has been so much rain that there are two fields of our spring grain that we did not get rolled, and I am afraid that it is too late now to be of much service. Fall wheat has improved very much, but a good deal of it will be a very poor crop. Meadows are looking luxuriant, and, unless some unforeseen circumstances occur, we are insured of a very good crop of hay. Some of our farmers have got their corn planted. Our corn and turnip ground is all ready, and our mangolds and carrots are showing up nicely above the ground. We like to sow our swede turnips from the 10th to 17th June, and when the ground has been prepared a considerable time ahead, and cultivated or harrowed once a week in the interval, we have good success. We generally sow Greystones on the headland of the corn and root field about the beginning of July. We could not sell our potatoes; perhaps it is doubtful if we could have given them away; but we are finding a ready market for them at home by cooking and feeding to the pigs. We cook four to five bags at a time, or as much as the pigs will eat in about two days, as the boiled feed will not generally keep longer. When we have a calf that we don't intend to keep, we put the carcass in with the potatoes, and when the fire has gone down, we put in about one half bag of chop, and work up well with a hoe, and it makes a very satisfactory meal for piggie, and after he has finished, he lays down contentedly and grunts out his satisfaction. Pork is keeping up in price, and our local men are now giving §6.75.

Our old boar's hoofs got long and sharp, so that he was cut-

giving \$6.75.

Our old boar's hoofs got long and sharp, so that he was cutting the backs and sides of the sows, so we turned a shipping crate upside-down and run him into it, tying his front feet to the sides, then tipped the boar and crate over, and the gentleman was lying on his back quite safe and helpless, and with a blacksmith's knife and rasp his feet were soon trimmed into decent shape.

man was lying on his back quite safe and helpless, and with a blacksmith's knife and rasp his feet were soon trimmed into decent shape.

There is not so much blossom on the apple trees this spring, so I suppose that this will be the off year for apples. We have the tag by-law in operation in our township. A farmer lately tried to take his animals from the inspector as he was driving them to be impounded, after finding them pasturing on the highway. The inspector cited the farmer to appear before the magistrate, and before the business was settled the farmer's pocket was lighter by \$20. We believe the tag law is all right when impartially enforced.

There is a pretty good flow of milk coming into the cheese factories and creameries, and the cheese is being sold about as fast as it is made, for from 8 to 8½ cents. Those who have been stall-feeding cattle are holding out for 5 cents per pound, but there is not nearly so much stall-feeding in this part as there used to be. It is more dairying and grass-fed steers. There have been a great many calves vealed here this season, and there seems to be a ready sale for them at from \$4 to \$5. Lambs are doing very well, but the wool is now so cheap that the sheep industry is losing favor very much, and there are so many wire fences that it is not an easy matter to keep the sheep just where you want them to be.

Good Roads Train.

Good Roads Train.

H. B. Cowan, of Ottawa, Secretary of the Eastern Ontario Good Roads Association, has made arrangements for a "good-roads train," to be run over the railways in that part of the Province, carrying road machinery and cement, and will construct from a half to one mile of model road in each county. The County and Township Councils supply stone, horses and laborers. When the work is done, ac county convention on good roads will be held. The train starts from Hamilton, Ont., on July 1st. Provincial Road Instructor Campbell will lay out the roads to be constructed. The railways carry the train free.

Chicago Market.

Chicago, May 27. — Cattle.— Receipts, 35,000; good to prime steers, \$5.30 to \$6; poor to medium, \$4.15 to \$5.30; stockers and feeders, \$3 to \$5.10; cows, \$2.90 to \$4.70; heifers, \$3 to \$5; canners, \$2.25 to \$2.95; bulls, \$3 to \$4.40; calves, \$4.15 to \$6.25; Texas fed steers, \$4.25 to \$5.40; Texas bulls, \$2.75 to \$3.90.

Hogs.— Receipts, 40,000; top, \$5.85; butchers, \$5.60 to \$5.85; good to choice heavy, \$5.75 to \$5.92½; rough heavy, \$5.60 to \$5.70; light, \$5.55 to \$5.82½; bulk of sales, \$5.75 to \$5.87½.

Sheep.— Receipts, 21,000; good to choice wethers, \$4.40 to \$4.65; Texas sheep, \$4.50 to \$4.85; mative lambs, \$4 to \$5.85; western lambs, \$5 to \$5.75.

British Cattle Markets.

London, May 27.—The live-stock trade continues slow. United States cattle, 6½d.; Canadian, 5¾d. to 6d. United States sheep, 63d., nominal. Liverpool, May 27.—Canadian cattle, 53d. to 6d. Trade

Montreal Markets.

Montreal, May 27.—There were about 450 head of butchers' cattle, 300 calves, and 400 sheep and lambs offered for sale at the East End Abattoir to-day. Prices were probably higher than they have been on this market for some years past. Prime beeves sold at from 5½c. to 5½c. per lb.; pretty good stock at from 4c. to over 5c., and the rough beasts at from 3½c. to 4c. per lb. Calves were ranging from \$2.50 to \$8.00 each. Shippers paid 4c, per lb. for good large sheep, and the butchers paid from 3½c. to 4½c. per lb. for the others. Lambs sold at from \$2.50 to \$3.75 each. Fat hogs are declining in price, and sold at from 6¾c. to 7c. per lb. for good lots, weighed off the cars.

Buffalo Market.

East Buffalo, May 27.— Cattle.—Receipts, 125 loads, including 7 loads of Canadian on sale; choice to extra export, \$5.75 to \$5.90; good to best, \$5.25 to \$5.70; butchers' steers, \$5.15 to \$5.35; Canada feeders, good to extra, \$4.50 to \$4.75. Calves—offerings light; choice to extra, \$5.50 to \$5.60; good to choice, \$5.25 to \$5.50.

Sheep and Lambs.—Choice to extra lambs, \$5.65 to \$5.75; good to choice, \$5.25 to \$5.75; fair to good, \$5.30 to \$5.60; com

good to choice, \$5.30 to \$5.75; fair to good, \$5.30 to \$5.05; common to fair, \$4.25 to \$5.30; sheep, choice to extra, \$4.50 to \$4.75; good to choice, \$4.25 to \$4.50; common to fair, \$3 to \$4. Hogs.—Steady: mixed, medium and heavy, \$6.05, with a few fancy at \$6.10; Yorkers, \$5.90 to \$6.05; pigs, \$5.80 to \$5.85; roughs, \$5.40 to \$5.80; stags, \$4.25 to \$4.75.

Toronto Markets.

Toronto Markets.

The Harris Abattoir Company have caused the supply of butchers cattle to be greatly increased at this market, and, to a great extent, have improved the price of all grades. There was a steady demand for all grades of cattle, and the supply not large enough for all purchasers. Seventy-seven loads on offer, and the top price for butchers' cattle was paid—\$5.15c, per cord for several years. The demand keen; butchers' cattle advanced; middled. Explore cattle steady. Butchers' cattle advanced; middled. Explore cattle steady. Butchers' cattle advanced; middled. Explore steady and demand. Lambs in good demand. Calves in good demand. Hogs advanced to \$7.25; market steady; supply light, only 600 on offer; prospects steady at quotations. Our comparative prices schedule is worth study.

Export Cattle.—Only choice export cattle wanted. Picked loads are worth \$4.85 to \$5.25 per cwt. Light export steers sold at from \$4.50 to \$4.80 per cwt. A slight advance over late quotations was registered at the last two market days. Several of our chief exporters paid \$5.30 per cwt. for choice picked loads. Medium light weights sold at \$4.50 to \$4.90.

Butchers' Cattle.—The quality of butchers' cattle is improving. Many butchers from outside towns are compelled to attend this market for supplies. Choice picked lots of butchers' cattle are worth \$4.50 to \$4.65 per cwt. Loads of good butchers' cattle are worth \$4.50 to \$4.65 per cwt. Loads of good butchers' cattle are worth \$4.50 to \$4.65 per cwt. Mixed medium—cows, heifers, steers—sold at \$7.00 to \$3.75 per cwt. Rough, inferior, half-starved runts—cows and bulls—sold at \$3.25 to \$3.50 per cwt. These are known in the trade as canners.

Bulls.—Heavy export bulls sold at \$3.85 to \$3.90 per cwt. These are known in the trade as canners.

Bulls.—Heavy export bulls sold at \$3.00 ber cwt.

Feeders.—Vearling steers, 500 lbs. to \$0.00 lbs., sold at \$3.30 to \$3.50 per cwt. The export trade is dull. The Old Country markets are in an unsatifactory condition.

Stockers.—Vearling steer

| one or or or or | HOSE WILL ICE | tay for the mark | et. |
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| Extren | ne comparat | ive 2 weeks ago. | Same date last year. |
| Export cattle Butchers' cattle | \$ 5 25 | \$ 5 25 | \$ 4 80 |
| Bulls | 4 25 | 4 60 4 37½ | $\begin{array}{ccc} 4 & 35 \\ 4 & 00 \end{array}$ |
| Feeders | 3 50 | 4 60 3 50 | 4 30 3 25 |
| Hogs | 3 85 7 25 | 5 00 6 87 1 | 4 00 6 25 |
| Milk cows Lambs, each | 49 00 | 50 00° 6 00 | 50 00 5 75 |

Grain and Produce Markets.—Receipts of farm produce by

Grain and Produce Markets.—Receipts of farm produce by farmers' wagons have increased.

Wheat.—Five hundred bushels each market day, at a steady price, advancing to 73c. per bushel for red and white. One thousand bushels of goose at 69c. per bushel.

Hay.—Ten to fifteen loads per day. Prices easier, at from \$13.00 to \$16.00 per ton.

Baled Hay, in car lots, at from \$11.00 to \$12.00 per ton.

Straw.—Four loads of sheaf straw per day, at from \$5.00 to \$5.50 per ton.

Baled Straw, in car lots, at \$5.00 per ton.

Hides.—No. 1 green, per lb., 5½c. to 6½c.; No. 2 green, steers, per lb., 6c. to 7c.; hides, cured, per lb., 7c.; calfskins, per lb., 9c.; sheepskins, each, 90c. to \$1.00; wool, fleece, per lb., 13c. to 14c.; wool, unwashed, per lb., 8c. to 9c.; wool, super, per lb., 16c. to 17c.; wool, pulled, extra, per lb., 19c. to 20c.

Dressed Beef.—Beef, fore quarters, per cwt., \$5.00 to \$6.00; beef, hind quarters, per cwt., \$8.00 to \$9.00; mutton, carcass, per lb., 8c. to 9c.; veal, carcass, per cwt., \$7.50 to \$8.50; lamb, per lb., 9c. to 11c.; dressed hogs, per cwt., \$8.50 to \$9.50.

Oats.—Adyanced. Seven hundred bushels sold at 37½c. to 38c. per bushel.

Peas.—In good demand. Scarce, at 66c. per bushel. Farmers are complaining that the ground is very cold and crops are making no growth.

Poultry.—The outlet for poultry is now very good. The market shows much activity. Several outside buyers now attend \$t. Lawrence Market for supplies. Chickens, 60c. to 80c. per pair; turkeys, 11c. to 13c. per lb.

May 27th, 1801.

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THE QUIET HOUR.

Joyful Service.

O the rare, sweet sense of living, when one's Heart leaps to his labor, And the very joy of doing is life's richest, Noblest dower!

Let the poor – yea, poor in spirit – crave the Purple of his neighbor.

Give me just the strength for serving, and the Golden present hour!

Our last talk was about bondage—the condition of slaves, degraded and degrading. To day let us consider a subject as different from slavery as light from darkness—although, to outsiders, it may seem very much the same thing—I mean hearty and willing service. We must all serve some master, but the choice of masters makes all the

difference between bondage and service.

Those who serve the world are slaves—afraid to do anything or wear anything that is not quite "the thing"; spending time and strength and money in the vain attempt to please a fickle master than the property and let the strength and stre who cares nothing for them; rising early, and late taking rest, living in a constant state of anxiety and worry; yet ready at last to echo the dying lament of the learned and industrious Grotius: "Alas! I have squandered away my life laborously in doing nothing." The world's wages are always unsatisfying, its food and drink leave the poor slaves hungry and thirsty.

To be the servant of self is at least as great a slavery, and, if possible, even more degrading. It is surely true that "he who lives for himself alone, lives for the meanest man in creation. His nature is no bigger than a coffin." If a man can't control his appetites and passions, he is surely a weak, miserable slave. An American had decided that chewing tobacco was a filthy habit, and that he would give it up. For a long time he failed to keep his resolution. One day he took a bit of tobacco, and, holding it up, said: "You are a thing, and I am a man; it shall no longer be said that a man is mastered by a thing, so, though I love you, here goes!" A really free man is one who has learned to do without. General Gorden tells of a native who seemed to have learned this valuable lesson. He was offered a drink of water, but politely refused, saying that he had drunk the day before. Water was a precious article, not to be used every day. It might be an advantage to us to imitate Dr. Hall, who used to stand before one of the large shop-windows in Broadway, and thank God for the great number of things in the window that he could do without.

The service of Satan is, we all know, a terrible state of slavery. His wages of misery, despair and death will most certainly be paid to the last farthing, unless we escape from his clutches. As I said, we must serve some master; from the highest in the land to the lowest, our life is a life of service. Our late Queen gladly spent her long life in serving her God and her people. The Prime Minister is, even in name, the chief servant of the nation. Our Lord laid down this rule, "Whosoever will be chief among you, let him be your servant." He carried it out Himself, proving His right to be the Master because he came not to be ministered unto, but to minister. Let us serve Him willingly, and so enjoy the only service that is perfect freedom; then we shall be ready to say,

"I love, I love my Master, I will not go out free."

It is a great mistake to think that we can work for ourselves all the week, and for God on Sunday. Even though our work will bring in a certain return in dollars and cents, and the pay is a matter of great importance, still the work may be done for God. There is a good deal of truth in the remark: "If your work is first with you and your fee second, work is your master and the Lord of work, who is God. But if your fee is first, fee is your master and God. But if your *fee* is first, fee is your master and the lord of fee, who is the devil." It is only right that a minister should be paid for his services, but what kind of sermons would he preach if he were continually thinking of the money he would receive? A musician may be paid for his music and a painter for his pictures, and they may work with the intention of earning money too, but if they don't love the work, and forget the reward to some extent in the pleasure of doing it, their work will be of a very poor quality indeed. It is the same with farm work or housework. "People who take pains never to do any more than they get paid for, never get paid for anything more than they do." Nobody wants to hire anyone who is always afraid of being imposed on, and is never willing to do a hand's turn more than he has been engaged for. As Adam Bede says: "I can't abide to see men throw away their tools the min-ute the clock begins to strike; as if they took no pleasure i' their work, and was afraid o' doing a stroke too much I hate to see a man's arms drop down as if he was shot, before the clock's fairly struck, just as if he'd never a bit o' pride and delight in's work. The very grindstone

'ull go on turning a bit after you loose it." He is not the only employer who "wouldn't give a penny for a man as 'ud drive a nail in slack because he didn't get extra pay for it.

'No; the two kinds of people on earth I mean Are the people who lift and the people who lean. Wherever you go you will find the world's masses Are always divided into just these two classes. And, oddly enough, you will find, too, I ween, There is only one lifter to twenty who lean. In which class are you? Are you easing the load Of overtaxed lifters who toil down the road? Or are you a leaner, who lets others bear Your portion of labor and worry and care."

If we are serving God, thinking only of the promised reward, will He be pleased with our service? Think of the willing service of David's three captains: breaking through the Philistine host, at the risk of their lives, just to get him a drink of water from the well of Bethlehem. Think of the precious ointment poured out so lavishly on the head and feet of the Master. It was graciously accepted because it was the gift of love. There was no thought of any return that might be made. The giving was a joy in itself, and God loveth a cheerful giver.

"I do my Master's work, as He has taught:
And work of love with gold was never bought.
He knoweth all of which my life hath need,
His servants reap as they have sown the seed.
With all my heart I bind my Master's grain,
And love makes sweet my labor and my pain.

Ingle Nook Chats. GREETING TO ALL THE GUESTS, NEW AND OLD!

Now that the balmy June days are here, with their prodigal glory of sunshine, do not for a moment suppose that the Ingle is no longer a fitting place for our pleasant meetings. True, we have no longer the cheery light of the glowing embers, but we shall fill their place with feathery ferns, which shall charm by their beauty, and bring us, in fancy

at least, to the cool, shady woodland.

My dear "Chrysolite," it is very kind of you to comment so favorably upon our efforts; if we are able, even in a small measure, to contribute to the able, even in a small measure, to contribute to the pleasure of our readers, we shall have accomplished our aim. "Chrysolite" sends greetings to all her fellow guests. "Moache"—I really will as soon as possible, but a hostess has so many other duties, especially at this season—you understand. No, I have not done any trimming of raspberry canes, but I set out a few this season. Mattie A. S.—The fact of your conding an answer to this or any of fact of your sending an answer to this or any of our contests constitutes you a member of our club, which now numbers 216. This answer applies to several other inquirers.

We have two new guests from Uncle Sam's domain, both of whom are very welcome. "Morag

—I am not aware of the existence of a "chapter of the D. of B. E. in any of the towns near here. What is the aim of the society, the requisites for admission, etc.? We have had some ideal weather, but to-day it is cold and wet. What of it!

'Into all lives some rain must fall, Some days must be dark and dreary.

I presume the most interesting subject for a chat at present is the

RESULT OF CONTEST IX.

To this contest there were 108 contributors, only three of whom were successful in guessing every number correctly, viz.: Miss Ethel Blaikie, Denbrae Fruit Farm, St. Catharines; Miss S. Elsie Richardson, Bethany, Ont., and James F. McCallum, Brewer's Mills, Ont., to whom the prizes are therefore

Miss S. Elsie Richardson, Bethany, Ont., and James F. McCallum, Breweer's Mills, Ont., to whom the prizes are therefore awarded.

The following 30 answered all but one: A. L. McDiarmid, A. W. Graham, Mary Hunter, Lily Rogers, Olive Hewitson, Achone Magee, "Magpie," Douglas E. MacVannel, H. F. Else, Gwendolyn Langford, Ethel Jose, J. W. Chisholm, Laura B. Shaver, R. Deachman, "Minnie May," Evelyn Stott, Emily Ewald, A. M. McColl, Jessie L. Fawcett, "Zara," Mabel F. Longley, W. McArthur, C. M. Blyth, H. S. Stayner, Emma MacRae, A. G. Nixon, and Mattie A. Simpson. Contributions of varying merit (the majority lacking but two or three numbers) were received from Nettie M. Ryckman, E. B. Buckbee, Annie Hartley, M.L. Betts, F. G. Seniple, Ethel H. Taggart, Mary K. Clarke, Alice McClary, Jessie D. Hyde, Lottie Middleton, W. T. Ferguson, Maggie Roy, F. L. Sawyer, G. C. McInnis, Mary S. Williams, Maggie Douglas, "Helen," Viola Atwell, H. S. Shirreffs, Eva Gallagher, Jas. Golan, Marion Travers, Grace Kirkland, Pearl Shepherd, Annie E. Bartleman, Ethel M. Lewis, "Jewess," C. Malcolm, C. S. Edwards, Ellen O. Malcolm, M. W. Bertram, Maggie Tennant, "Margareta," Geo. Jamieson, E. Lucretia Burt. "Chrysolite," Oliver L. Tuckey, Minnie Curwen, Edna Dennis, Emily R. Staley, Jennie E. Golan, "Nancie," A. B. Lougheed, S. E. Silverson, Effle Thomson, M. J. Silverson, "Verlie," W. Teasdale, Margaret E. Pascoe, "Madge," Lizzie Hood, Geo. Ferguson, "Marion," Laura M. Archibald, R. Duff, N. A. McEachern, "Eugenie," H. Parkinson, E. A. C., Mabel Price, "Old Maid," Mrs. A. Rodd, "Ike Icicle," Mabel Imerson, Ethel Ironside, Katie McNab, Dan McDiarmid, S. J. Thomson, "McGinty," R. B. Forsythe, Allie Lyons, Mrs. H. Connell Bennett, Fred Tuckey, David A. Ashworth.

The correct answer to contest IX. is:

1. Abraham Lincoln.

The correct answer to contest IX. is:

The correct answer to contest IX. is:

1. Abraham Lincoln.
2. Robert Lewis Stevenson.
3. Wm. Shakespeare.
4. Wm.MakepeaceThackeray.14. Sir John Thomson.
5. Edgar Allan Poe.
6. Louis Agassiz.
7. Harriet Beecher Stowe.
8. Henry W. Longfellow.
9. Christopher Columbus.
10. Oliver W. Holmes.
10. Oliver W. Holmes.
10. Trust that No. XI., which is of a somewhat similar nature, may meet with a generous response—it will benefit young and old to play a game of authors. Contest X., which I supposed would draw out some excellent papers, is not meeting with the success the subject deserves. In order that the tardy ones may yet get in their work, I shall extend the time to June 20th, instead of June 5th. Come, boys, girls, and children of a larger growth, tell us all you know of "Canadians who have become famous" by acts of heroism, devotion to country, or otherwise. Surely there are many such among Canadian men and women of the past and present.

"Jewess." Teresa McCrea, and Mary Calhoun (Alvinston) have acknowledged receipt of prizes in conundrum contest.
"Mossie," I am not sure the subject you suggest would be of general interest. Why not try the one already announced?
Ingle Nook Chats, Pakenham, Ont.

The Hostess.

THE CHILDREN'S CORNER.

PRIZE ESSAY IV.

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

Princess Victoria was awakened early on the morning of June 20th, 1837, to receive the news that she was Queen of England. She was only eighteen years of age, but she had been well trained and educated, and proved an excellent ruler, winning the love of her people as no other sovereign had ever done before.

Queen Victoria was a true good woman, who loved God and believed in prayer. Her first words to the Archbishop of Canterbury, after he told her of her accession to the throne, were, "I ask your prayer on my behalf." This showed her trust in God, which led her to be such a good woman, and thus win the love of her people. Another of her noble characteristics was her love for peace 'She always used her influence toward that line, and thus kept the country prosperous in both wealth and population, which very much pleased the people. Queen Victoria also loved her people—rich and poor alike. Her heart went out in loving sympathy to her humblest subjects, and her purse was always open in generous aid. Victoria the Good was a very sympathizing Queen in times of national sorrow, especially to the wives and children of the slain or wounded.

When the news sailed forth that the beloved Queen had passed from earth to her eternal rest, the whole nation was noved with sorrow, and many bitter tears were shed, but her loving memory will remain forever in the hearts of her people.

EDNA SHAVER (aged 15), Ancaster, Ont.

Between Ourselves.

Well, children, I suppose you are enjoying your-selves immensely this sunshiny weather, especially with the summer holidays so near. You country-bred chicks, though, don't really know what a good time you are having. I read the other day of a little girl who lived in a norm where the sup never time you are having. I read the other day of a little girl who lived in a room where the sun never shone, except for a few hours in June. The whole family lived, cooked and slept in the same room—had lived there six years. There are thousands of children growing up, like pale and sickly plants, in rooms where the sun never gets a chance to shine. In the summer they die for want of a little fresh air—it is almost too hot to breathe—and yet the health giving sunshine can't get in to make the air pure and kill the germs of disease. Those city children don't get the chance to roll on the grass, climb trees in the orchard, eat harvest apples, plums and cherries in alarming quantities, tumble climb trees in the orchard, eat harvest apples, plums and cherries in alarming quantities, tumble about in the hay, go fishing in the creek, or have jolly little picnics in the woods. The policeman won't let them play on the streets, and many of them have no other playground. One little chap, who had strayed away from what he called his home, stayed all night at the police station. He was so excited when he found that he had a real was so excited when he found that he had a real bed to sleep in, instead of a heap of dirty straw, and a whole egg and a glass of milk for breakfast, besides plenty of bread and butter, that he said he had got to a "bully place," and he wanted to stay there altogether. When his home was found, nobody seemed pleased, himself least of all, for he knew he would search a very got anything better nobody seemed pleased, himself least of all, for he knew he would scarcely ever get anything better than a crust of dry bread to eat; and all the care he ever had was a large supply of kicks and abuse. Children like that would go wild with delight if they had half the fun you have. And yet, I dare say you think yourselves badly used sometimes when you can't have everything your own way. In such a case suppose you try this plan: In such a case suppose you try this plan:

"There was a little school-ma'am
Who had this curious way
Of drilling in subtraction
On every stormy day.
'Let's all subtract unpleasant things,
Like doleful dumps and pain,
And then,' said she, 'you'll gladly see
That pleasant things remain.'"

I hope you all intend to do a little gardening this summer. When I was a youngster I scorned a flower-garden, and put nothing but vegetables into my little bit of ground. My potatoes never needed Paris green, for I picked off every beetle most carefully. Don't try to copy Timothy Trim, though, fully. Don't try to copy Timothy Trim, for his gardening was not very satisfactory.

"Timothy Trim was a gardener gay, And his notions were quite sublime; He planted a watch in his garden one day When he wanted to raise some thyme.

" He buried a chest in a bed of mould And thought it would come up box, nd sunk some sticks in the earth, I'm told, And fancied they'd grow to stocks.

"He had a son, and a daughter too,
Who didn't think much of his crops,
For the candy-tuft of his planting grew
Into nothing like lollipops.

"I think I can see him with painful feet, And a look that is quite forlorn, As he murmured, 'I fear that I mustn't sow wheat, For I'm never without some corn.'

"His fancies had turned his brain, I fear, But little of pity he got, For, when his memory failed, I hear, He planted forget-me-not."

But I must stop talking nonsense, or you will lose all your respect for my gray hairs. Always respect gray-haired old ladies, my dears, even if they do talk nonsense occasionally, like your old friend— Cousin Dorothy.

The secret of the art of pleasing other people is showing an interest in what you are told, particularly when what you are told is what you have been told before; to be considerate to the inconsiderate, and never to talk of yourself. The instruction is valuable, for in the art of pleasing is the whole art of good manners. Analyze it and you will find that it consists of two elements—unselfishness and simplicity. Whose possesses those qualities needs no lessons in how to behave.

Scenery.

Does not our illustration suggest quiet and rest and coolness and peace, such as we can so well enjoy after a busy day? The lake, so peaceful and enjoy after a busy day? The lake, so peaceth and still, and the young moon faintly illuminating the landscape, present a picture calculated to bring out our best and purest and holiest feelings as we contemplate it. But such scenes are reserved for the few who live in the country and whose homes lie near one of our inland lakes. We will picture a large behind the trees a home in comfortable farmhouse behind the trees—a home in fact—for too many of our farmers' houses are not deserving the name of home. It need not be luxuriously furnished. One of the most homelike houses I ever saw was innocent of every extrava-gance in the way of carpets and furniture. The floors can be stained and varnished to save scrubbing; the chairs can be wood or cane, with plenty of rockers for easy-chairs; the walls neatly papered, of rockers for easy-chairs; the walls neatly papered, with a few pretty pictures, and the girls can add numerous pretty trifles with their needle, and a cozy, homelike room is the result. All the staining, painting and papering can be done by the members of the family, and will cost next to nothing. And as there is no home without food for the mind as well as the body, some books must be had, and as they can be had at such low prices, no farmer's home should be without them. Reading should be cultivated in every household, and the appetite increases with the indulgence. During the long evenings in winter, when the family are gathered about the fireside, one can read while the rest work. Let no evening pass without some reading. Often it is because there are no books in the house that none are read. The distance from

none are read. The distance from the city often prevents a farmer from taking a daily paper, but there is always a weekly one to be had, and a post office within reach. When business calls you to the city, purchase a few cheap books. Not cheap literature, but the works of the best authors may be obtained in cheap bindings or stitched, and if your boys and girls have the right sort of taste in them, they would rather have them than anything else. When there is something else. When there is some thing to read, much worrying and fretting is banished, and books will fill the place, to a great extent, of companionship, and often doubtful companionship at that.

Have You'a Delicate Skin?

I am not going to give you a series of recipes for beautifying the skin, as I wish to warn my fair readers against the too frequent and injudicious use of the so-called beautifiers. It is true that, to many skins, outward applications are most beneficial if used with discretion. But, as complexion is so much a matter of digestion, it is always as well to put off the use of the cosmetics as long as possible.

On the other hand, there are many women whose skins are so delicate that the bitter winds of winter and early spring make it absolutely necessary for them to make an almost constant use of emollients.

Cold cream is a very useful remedy for a roughened skin; and as it is always more satisfactory to know exactly what the cream is made of, and that it is quite pure, it is a good plan to make it at home, and the following recipe may be recommended for trial. Mutton tallow is a good basis for cold cream, and this you can get at the butcher's, telling him what you re-

quire it for, so that he will select some very fine

Cut the tallow into bits, and put it into a sauce-pan without any water. Set the saucepan into a jar of boiling water, and let all remain until the fat is thoroughly "tried" out of the tallow. Strain through a fine sieve, and, while it is still

warm, stir in a teaspoonful of essence of camphor

to every cup of tallow.

Next, a teaspoonful of your favorite perfume, and stir until all is a sweet-smelling liquid. Before it has had time to cool, pour into a little jar, and stand in a cold place to set.

Humorous.

A venerable and dignified bishop was recently having his portrait painted by an eminent artist. After sitting steadily for about an hour in silence, his lordship thought he would like to break the monotony with a remark. Accordingly, he said to the artist: "How are you getting on?"

To the astonishment of his sitter, the knight of the palette, absorbed in his work, thus replied: "Move your head a little that way, and shut your mouth!"

Not being accustomed to be spoken to in this fashion, the bishop said: "May I ask why you address me in this manner?"

Artist (still absorbed): "I want to take off a little of your cheek."

cheek

Collapse of the bishop.

"What particular incident in the life of George Washington marked his undaunted courage?" asked the teacher.
"He married a widow, ma'am," replied Benny Bloobumper.

Christian Service.

The more heart one puts into the Christian life the easier it is to live it. Most of our difficulties in connection with it arise from a half-hearted practice and enjoyment of it. He who can sing when a burden is imposed upon him, or can rise on faith's pinions when things seem dark, or can find content when duties run against nature, is sure to have a cheery, hopeful and blessed experience of the Lord's favor and service.—Presbyterian.

Before it is Too Late.

If you've a gray-haired mother
In the old home far away,
Sit down and write the letter
You put off day by day.
Don't wait until her weary steps
Reach Heaven's pearly gate,
But show her that you think of her
Before it is too late.

If you've a tender message Or a loving word to say,
Don't wait till you forget it,
But whisper it to-day.
Who knows what bitter memories
May haunt you if you wait?
So make your loved one happy
Before it is too late.

The tender words unspoken, The tender words unspoken,
The letters never sent,
The long-forgotten messages,
The wealth of love unspent—
For these some hearts are breaking,
For these some loved ones wait,
So show them that you care for them
Before it is too late.



The Soft Answer That Turneth Away

Wrath.

"soft answer" is not spoken and wrath has full course! How many homes do you know where the "soft answer" is never heard, but "grievous words" follow "grievous words" and "stir up anger"?

Did you ever visit in a home where there is a great deal of what is commonly called "bickering"? If you are not accustomed to it and dislike contention, your visit will be spoiled. How thankful you feel if one of the members of the family or you, by a pleasant joke or turn of a speech, set them all to laughing, and so end the discussion.

These people will tell you that nothing is meant by it; that they all understand each other and know "how to take" the speeches. That may be true; but what is the influence of such a home? The members become so accustomed to contradicting each other and saying sharp, biting words, that when they go into other families or set up homes of their own, they do the selfsame thing, and often the results are unpleasant, to say the least.

"But I know I am right," says one. Yes, but cannot someone else be right, also? Very often it has been proven that both are right, and if an exchange of opinion is made, each gains new knowledge. During such a discussion, even if you are right, can't you find some part of your friend's argument to which you can respond heartily—"that's right," or words to that effect? Try it a few times and see if it does not lead to a better understanding.

Another expression we often hear is, "If I 'give in' once, she (or he) will think I must 'give in' all the time." By this I don't mean yielding a principle; but very seldom do the discussions referred to in this article involve a principle. After they are over, we can see that they were wordy battles about nothing. Consider carefully, and when something is said with which you do not agree, think to yourself, "Will anything be gained by a discussion? Will good result to anyone from my expressing my views? If you feel death they are only in the discussion "hammer-and-tongs" style. Afterwarts, if you feel that any blame whatever i



I have received the following letter from "Once a Sufferer," who writes me from Glasgow. I print it with all reserve. Perhaps some medical reader can say if the tonic is likely to prove universally successful. My own experience of such "cures" is that while they may answer in some cases they utterly fail in others:

"For many years I have suffered from neuralgia and nervous headaches, and have spent a small fortune in much-advertised remedies, none of which did me any good. Some three months ago a friend advised me to try a 'tonic,' made in the following fashion, and it has completely cured me. I send it to you, hoping that many of your Household readers may derive equal benefit from it: Well, beat an egg in a basin, with a pinch of salt and a very small pinch of carboil a quarter bonate of soda: of a pint of milk, with two or three of a pint of milk, with two or three lumps of sugar; and when it is on the very point of boiling over, pour it on to the egg, stirring quickly all the time with a fork to prevent the egg from 'lumping.' This mixture has all the reviving effect of a stimulant, without its after-reaction, and is at the same time nourishing and soothing to the nerves. The salt and soda, the taste of which is imperceptible, prevent the milk from being indigestible or causing biliousness. Those whose tastes incline to savouries

biliousness. Those whose tastes incline to savouries rather than sweets should substitute an extra pinch of salt and a dust of red pepper for the sugar."

How to Avoid Wrinkles.

Women are always on the lookout for a cure or Women are always on the lookout for a cure or preventive for wrinkles, which are usually regarded as one of the first signs of advancing age. They buy cosmetics, powders, lotions, and those who can afford it indulge in the luxury of massage—all to chase away the unwelcome intruders. But, after all, the remedy for wrinkles lies very much in our own hands. They are not always a sign of age; on the contrary one often sees quite young girls with the contrary, one often sees quite young girls with lined and furrowed brows. This can often be traced to the bad habits of raising the brows and frowning, which latter exercise soon produces little horizontal lines between the eyebrows. A great deal may be done to keep a youthful look by living a simple and natural life. Late hours, too much reading at night, and want of fresh air, are mainly responsible for wrinkled faces. But the best recipe that can be given for their responsible is supposed up in the two given for their prevention is summed up in the two words—"Don't worry." Keep this in mind, meet your troubles bravely, but do not anticipate them, and wear when you can a bright and cheerful expression. A happy and youthful heart will show itself in a placid and unlined face.



SCENERY.

How Little it Costs.

How little it costs, if we give it a thought,
To make happy some heart each day!
Just one kind word or a tender smile,
As we go on our daily way;
Perchance a look will suffice to clear
The cloud from a neighbor's face,
And the press of a hand in sympathy
A sorrowful tear efface.

A sorrowful tear efface.

One walks in sunlight; another goes
All weary in the shade;
One treads a path that is fair and smooth,
Another must pray for aid.
It costs so little! I wonder why
We give it so little thought;
A smile—kind words—a glance—a touch!
What magic with them is wrought.
—Open Window.

Grandmother's Maxim.

I never could tell what my grandmother meant, Though she has the wisest of brains; "I have noticed," she said, "in the course of my life, That lazy folks take the most pains."

I hated to mend that short rip in the skirt Of my dress, where the pockethole strains, And grandmother saw it and laughed as she said, "Yes, lazy folks take the most pains."

And that same little rip, when I went out to ride, Was caught in my bicycle chain:

O! then I remembered what grandmother said,
"That lazy folks take the most pains."

For instead of an inch I must sew up a yard, And it's just as her maxim explains; I shall always believe what my grandmother said, "That lazy folks take the most pains,"

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Seed Time.

The other day I popped in upon a friend of mine, a dear old lady, with white hair and a face so gentle one would at once feel how justly would she criticise mankind were she to attempt it, and how charity would smooth over many a rough spot. "I've been reading in the ADVOCATE, dearie," she said to me. "I have so many friends there, do you know, I often catch myself off sight-seeing in England with Mollie and Fan, and its only am laughing at something Mollie has said that I come back to Canada and remember my chickens that a mouthful since morning." There she haven't had a mouthful since morning." There she sat, weaving yards and yards of laurel for "H. A. B." and for "Hope," saying how earnestly they wrote; and I am going to tell "Hope" the sweet tribute my friend paid her. She said how well the name suited such a character. She was indeed "white-handed Hope, the hovering angel," and her "Quiet Hour" had been many a sermon to her. But there was one now writing who called herself "One of the Girls," She couldn't make her out one bit. Such a strange mixture of a butterfly and I've forgotten strange mixture of a butterfly and I've forgotten what other thing. She did hope this girl knew nothing about skinning eels or shoeing horses, for if she did, of course she would write about them all in one breath. Oh, she was "quer as a bundle of sticks." Now, it's not mine to question the fact that a bundle of sticks is queer, since the wisdom of our a bundle of sticks is queer, since the wisdom of our ancestors is in the simile, but if my friend had likened me unto a sea lion, I should certainly have declared her a "wise and upright judge." I remember watching the sea lions at the Zoo in Cincinnati for hours one day, and thought them the worst things to flounder I ever saw: first walking on their fins, then on their tails, and going down completely when hunting their feet. When my charitable old friend called me a "queer mixture," I feel sure others would place me more on the order of sure others would place me more on the order of this sea animal; but I shall try and not flounder any more, and if I am a bit of a butterfly this time it will merely be to dip into a few of the June blossoms, for they too soon must die. We all have noticed how the bird notes change as the summer months go by. The bright, joyous, light-hearted songs of May are not the songs of August. We do not believe they have forgotten how to sing, so we conclude the cares of a family and the heat of the

midsummer sun has'taken all the song out of their hearts. This, then, alone—the bird-songs of spring—is surely typical of childhood. In this world of change there are at least two stable things: childhood and nature. Evolution has never touched baby sweetness, the progress of the centuries has never caused the apricot blossom to sleep until her leaf-buds have expanded, nor the cowslip and daffodil to bloom with the summer rose. No matter how busy or what changes pass over the earth, the south wind but calls, and the flowers obey, each in its own order. We should be thankful for this—thankful for the seed-time as well. As for the harvest, by the time harvest comes we shall have forgotten all about the luxuriant clover meadows, the wonderful growth in the vegetable garden. The birds and growth in the vegetable garden. The birds and flowers too will be forgotten, and if the wheat crop is poor and the prices down, we shall see nothing in the world to be thankful for; but just now there is everything prosperous and growing, and we should be so grateful, we the tillers of the soil, for it always seems to me that promise was sent especially to us: that "seed-time and harvest shall not fail"; and what Spencer wrote in his "Ministering Angels" so many years ago is a very good thought for us to bear in mind:

"And is it all for love and no reward?
Oh, why should Heavenly God to man have such regard?" Stop! you "queer mixture," or you won't be allowed to be— ONE OF THE GIRLS.

Humorous.

Near the entrance to the Paris Exhibition a beggar, covered with rags, solicits alms from the passers-by in broken French, with a decidedly Spanish accent. A gentleman gave him two sous, and then added another twenty, saying: "You can earn this trifle, my friend, if you will take this letter."

"What do you mean, sir?" was the Spaniard's haughty rejoinder. "A hidalgo may beg, but he doesn't work."

rejoinder. "A hidalgo may beg, but he doesn't work."

Eli Perkins got off the following at a lecture in Minneapolis:
"A Fond du Lac preacher, worn out with trying to get a decent living, sent in his resignation. Said he: 'Brothers and sisters, I come to say good by. I don't think God loves this church very much, because none of you ever die. I don't think you love each other, because none of you ever get married. I don't think you love me, because you never pay my salary, and your donations are mouldy fruits and wormy apples, and by their fruits ye shall know them. Brothers, I am going away from you to a better place. I have been called to be chaplain of the Stillwater penitentiary. Where I go ye cannot come, but I go to prepare a place for you. Good-by."

Helpful Lives.

When we have given our money to help the poor and spoken our most encouraging words to help the weak, we have not yet exhausted all our resources. weak, we have not yet exhausted an our resources. A true christian may help others as much by his life as by his words and gifts. Nay, the principal contribution which anyone can make to the life of the world is not his word or deed, but himself. It is a vain thing to try to set a good example without a good heart. A life which is merely acted is not appropriate and the counterfait will seen be detected. genuine, and the counterfeit will soon be detected. Artificial lives are like the artificial flowers which one sees in the market. They are beautiful to the eye, but shed no fragrance on the air. The bees never hover about them. A good life proceeding from the heart creates a spiritual atmosphere, which greatly affects everyone who comes within its range.

Women's Headaches.

No doubt the headaches of women have many different causes. One of them is the fact that their lives are far more indoors than that of men, and in an air less pure. Another cause of headache is the frequent attack of acute indigestion. The effect is about the same as in the other case; the poisons generated in the digestive tract are absorbed into the blood and affect the nerve centers, causing headache. When a headache comes on, the thing to be done is to get the poison out of the system as quickly as possible. A copious enema of quite warm water will wash away some of it from the lower bowels, and this will make way for matter above to pass on. Copious hot-water drinking or a vomit will help to cleanse the stomach. It remains next to cleanse the blood. This is best done by breathing to cleanse the blood. This is best done by breathing fresh air in as great abundance as possible. If not able to go out of doors, lie gently in bed in a cool room well ventilated and breathe all you can. Sometimes the effect of deep breathing temporarily increases the pain. Then make less effort, but breathe all you can. The habit of taking medicine of any sort for headache is vicious and in the end happened. harmful. While medicines sometimes give temporary relief, they do not remove the causes. They are a broken reed instead of a true support.

KEMP'S

INSTANTANEOUS Sheep Dipping Fluid kills ticks, lice and all parasites or insect life on sheep, hogs, horses and cattle; destroys mange

on dogs.

Immediate in action and permanent in effect.
It is also a thorough disinfectant for barns, closets, cellars, etc.

s, celiars, etc.
One gallon makes one hundred gallons of wash,
Sold in half-gallon Imperial tins, at 75c.
The cheapest and most effective dip on the

If your druggist des not keep it, we will ex-ress a tin (prepaid) to any address in the cominion for #1. W. W. STEPHEN & CO.,

MEAFORD, AGENTS FOR THE DOMINION

Ayrshires and Yorkshires form a good combination, and that is what Alex. Hume & Co., Menie, Ont., make a specialty of. His Ayrshires are business cattle of high-class form, and his Yorkshires are economical feeders of the bacon-curer's type. See his advertisement

GOSSIP.

The Shorthorn herd of Mr. Alex. Moir, Waterton, Ellon, Scotland, was dispersed by auction, May 7th, when 43 head realized an average of £30 1s. 6d. Mr. Duthie secured the highest priced animal of the day in Fancy 11th, at 95 guineas. Mr. Marr, Uppermill, and Mr. Geo. Campbell, Harthill, were also buyers.

H. Bollert writes, May 20th, that the Maple Grove Holsteins have just gone to pasture in fine condition, and are doing finely at the pail. The crop of calves sired by the butter-bred bull, Prince Pauline DeKol, are the finest ever produced here. The sales this spring were very satisfactory, as all customers express themselves as highly pleased with their purchases. Among others, Mr. F. B. Wiltse, of Athens, writes: "I like the bull better every day, but of all the cows, Tidy Abbekerk DeKol is the cap sheaf. She is still milking over 50 lbs. per day; gave 359\(^2\) lbs. so far this month (that is, up to May 7th), and 4.839 lbs. the previous three months. What do you think of this for a two-year-old? She is a daughter of Tidy Abbekerk, which was selected for the Pan-American dairy test.

dairy test.

The Shorthorn bull, Starlight =17441=, illustrated in this issue, property of Mr. Henry M. Johnstone, Calder, Ont., a dark roan, calved Nov. 27th, 1892, was bred by Wm. Redmond, Millbrook, Ont., and is richly bred, his sire, Baron Fenelon = 13599=, being a son of Imp. Baron =2670=, bred by Sylvester Campbell, Kinellar, Aberdeenshire, and imported by Arthur Johnston, Greenwood. His dam was got by the noted sire, Challenge =2933=, who was perhaps the best son of the famous champion prizewinner, Barmpton Hero, while his maternal grandsire was Ontario's Champion 893-, a full brother to Barmpton Hero, being sired by Imp. Royal Barmpton, and out of Imp. Mimulus, by Champion of England, both bred by Amos Cruickshank, and imported by Hon. John Dryden. On his dam's side Starlight traces to Imp. Lady Eden, a family from which Mr. Dryden bred many of his best show animals. There are few bulls living that can boast of so much of the blood of Barmpton Hero, which scarcely ever failed to produce superior quality and character in its offspring.

Readers will take notice of change of advertisement of W. C. Shearer, of Bright, Ont. He is offering some fine Jersey heifer calves from his excellent herd. We should think this would be a grand opportunity for dairymen or others to secure good foundation stock for a profitable herd.

Mr. H. J. Davis, Woodstock, Ont., writes: Business in Yorkshire hogs and Shorthorn cattle was never brisker than the past month Have sold all my fall pigs, but have a very fine lot of young boars, from two to four months old, fit for show purposes. I am personally making an importation of Yorkshires and Shorthorns, and after the 1st of June my address will be, Greystones, Leek, Staffordshire, England.

Mr. Wm. Pierce, of Brinsley P. O., Ont., is just now offering for sale, as per advertisement, some extra nice yearling Shropshires bred from importations of Mansell foundation. Among this lot will be found something to please the eye of the most severe Shropshire critic. Mr. Pierce's flock is looking remarkably well. please the eye of the most severe shropsine critic. Mr. Pierce's flock is looking remarkably well. Some 56 youngsters may be seen frisking around the pastures, lending life and animation to the scene. Brinsley is near Clandeboye Station on the London & Wingham branch of the G. T. R., and only three miles from Lucan Crossing on the main line.

the G. T. K., and only three filles from Edean Crossing on the main line.

Mr. C. W. Hartman, of Clarksburg, Ont., is offering for sale three choice and fashionably bred Polled Angus bulls. Charley Zimro 487, sired by Viscount of Blantyre 486, dam Mabel Hillside 653, is a fine specimen of that popular breed, being a long, symmetrically-shaped fellow, that cannot fail io please intending purchasers. Black Prince 488, sired by Charley Zimbro, dam Bates Darling 474, is a year old, a nice smooth youngster, that should prove a prizewinner. Zimro Chief, by Charley Zimro, dam Countess Bate 475, is a young one of extra quality, and should develop into something a little above the average. Parties wishing to purchase a Polled Angus bull would do well to correspond with Mr. Hartman, as these bulls can be bought well worth the money.

THE SHORTHORN SALE AT CHICAGO ON JUNE 5TH.

The prospect for the combination sale of sixty head of high-class Shorthorns at Chicago on June 5th, selected from the noted Canadian herds of Messrs. Flatt, Edwards, Cargill, and Cochrane, is decidedly bright. The recent Shorthorn sales in Iowa, Ohio, Kansas, and other Western States, have been very successful, averaging very satisfactorily, though no sensational prizes have been realized. Taking into consideration the quality, character and breeding of the consignments slated for disposal on June 5th, there is every probability that good, fair prices will prevail, and that at the same time good bargains will be made. It is very rarely indeed that so many useful young bulls, cows and heifers of such excellent breeding are offered at one sale. So many of the females have good thrifty calves at foot, and so many have been bred to exceptionally meritorious bulls, individually and in breeding, that an unusually favorable opportunity is presented for securing foundation stock for a herd or replenishing material whereby to introduce fresh blood in the best lines.

The breeders contributing to the sale are first-class men in every respect, and have the best wishes of all for the success of their enterprize in building up the interests of the breed on sound lines. We understand that a goodly number of Canadian breeders will attend the sale, and whether they secure any of the stock or not, the extended acquaintance they will make with Western men will, no doubt, many times repay them for the expense of the trip in the business that will come their way as the result of meeting so many live business men.

The Walkerton Binder Twine Co.,

HE WALKERTON BINDER TWINE CO., Limited, is composed of 5,527 of the most progressive farmers of Ontario, 95 per cent. of the stock being owned and controlled by them.

We are manufacturing a superior article of Binder Twine, and selling it at the lowest possible price. Our grades are Canadian Sheaf, Bruce, and Saugeen, the prices for which are 9½c., 10½c., and 11¾c. per lb., delivered at the customer's nearest station. All accounts are payable by the 1st October, and those who prefer to pay cash on delivery will be allowed an additional 1/4 c. per lb. off. These prices and terms are exceptionally favorable, and it is expected that our friends, and all others who want an article that they can depend upon in the harvest field, where the true test is made, will place their orders early. If there is no authorized agent in your locality, order from us direct.

REMEMBER that this is a CO-OPERATIVE COMPANY, and that any profits that may accrue will be distributed among the shareholders, who are nearly all "tillers of the soil." There are no speculators to gobble up the profits in The Walkerton Binder Twine Co., Limited.

We ask you to give us a trial, confident that the result will be satisfactory, and lead to extended business with you in future years.

WE ARE HERE TO STAY,

and it would be folly for us to expect your patronage unless we give you entire satisfaction. When ordering your twine for this season's use, don't forget that we have the best and finest plant in Canada, and that we are turning out a very superior article at a small margin over the cost of production.

All enquiries will be promptly and cheerfully attended to, as we are always glad to give information to our friends and patrons.

We expect to be able to fill all orders in ample time for harvest; but, in order to prevent possible disappointment, we would urge you to send in your order at as early a date as possible.

JAMES TOLTON, SECRETARY-TREASURER,

WALKERTON, ONTARIO.

J. M. Gardhouse, Highfield, Ont., has sold King of the Clydes, a winner at Toronto Spring Stallion Shows of 1900 and 1901, to Jas. Yule, for Hon. Thos. Greenway, Crystal City, Man.

W. R. Stewart, Meadow Creek, Alberta, has recently been in Ontario, purchasing stockers, and has a train load of 500 good Shorthorn grade two-year-olds en route to the West, a goodly proportion being in-calf heifers, some of which are springers.

Brown Lawrence,

is standing at his own stable, Lot 14, Con. 3, London, "Norwood Farm." C. J. MILLS, LONDON, ONT.

Elsewhere in this issue the imported Clydesdale stallion, Brown Lawrence (9142), is advertised to stand at his own stable, "Norwood Farm," London township, 3rd concession, for service. His sire is descended from Prince of Wales (673), and dam from Darnley (222). Brown Lawrence is a good individual, and worthy of patronage.

patronage.

The address of Dr. J. G. Rutherford, V. S., who has been appointed Canadian Veterinary in the United Kingdom, is care of the Canadian Government agent, 52 St. Enoch Square, Glasgow, or care of the High Commissioner for Canada, 17 Victoria St., London, S. W. All expenses in connection with the testing of cattle for export from the United Kingdom will be borne by the Dominion Department of Agriculture. The U. S. also has an official veterinarian there (Dr. T. A. Geddes), and the certificates issued by either officer is accepted by either Government.

Volume 23 of the Clydesdale Studbook of

by either Government.

Volume 23 of the Clydesdale Studbook of Great Britian and Ireland has been received from the Secretary, Mr. Archd. MacNeilage, Glasgow, Scotland. The frontispiece which adorns the volume is a portrait of Prince Thomas (10262), winner of the President's medal as best Clydesdale stallion at the Highland and Agricultural Show, Stirling, July, 1900. It contains the pedigrees of mares 14124 to 14461, and stallions 10951 to 11234, and is uniform in style and excellence with previous issues. Referring to the brisk foreign demand of 1900, the preface states that out of 178 exported, Canada took 87, the United States 38, Argentine Republic 22, Russia 14, Germany 9, Australia 5, New Zealand 2, and South Africa 1. THE USHER DISPERSAL SALE OF SHORTHORNS

THE USHER DISPERSAL SALE OF SHORTHORNS.

June 19th is the date announced for the dispersion by auction of the entire Queenston Heights herd of Shorthorns belonging to Messrs. Isaac Usher & Son, Queenston, Ont., about 70 head all told, some 50 of which are of breeding age, while the balance are young things, quite a number being calves, which will be sold with their dams, and in not a few cases the cows nursing their calves have been bred again and are in calf to high-class bulls, thus affording opportunities to buy lots in which the buyer may have two or three strings to his bow, and in every case at his own price, as we are assured that all will be sold absolutely without reserve. The pedigrees, as a glance over the catalogue shows, represent a wide variety of useful families, many of which are known to be deep-milking sorts, as well as good feeders and fleshers, a goodly number being of good Scotch-bred tribes, while nearly all are topped by crosses rich in the blood of noted Scotch-bred bulls, which have left their impress in the uniformly level and smoothly turned conformation of the animals constituting the herd as a whole.

uniformly level and smoothly turned conformation of the animals constituting the herd as a whole.

The principal stock bull in the herd at present, and which will be sold, is the excellent rich roan, Lord Gloster = 26995=, of the favorite Cruickshank Duchess of Gloster family, being sired by the sweepstakes prizewinning Abbotsford, of Mr. Cruickshank's noted Village family, which produced Young Abbotsburn, the champion bull over all beef breeds at the World's Fair, Chicago, who was from the same dam as Abbotsford. The dam of Lord Gloster (Gaiety) was by Prince Albert, a high-class son of the famous sweepstakes winner and sire of champions, Barmpton Hero, whose dam was by Champion of England, as was also the imported cow, 12th Duchess of Gloster, from whom Lord Gloster is descended, giving him the benefit of the blood of that great sire on both sire and dam's side. Lord Gloster has proven a superior sire, a son of his, Roan Cloud = 31317=, being one of the stock bulls in the herd of Messrs. J.& W.B. Watt, Salem. Kinellar of York = 24504=, a smooth, red bull, bred by John Miller, Markham, has also been in service, and is included in the sale. He is of the good old Scotch-bred Syme family, which has produced a long line of prizewinners at Provincial fairs, and was sired by imp. Kinellar Sort, of the Kinellar Mina tribe, and his dam by the Cruickshank Victoria bull, imp. Vice Consul, a champion at the Toronto Exhibition. Of the four young bulls in the catalogue, two are sons of Royal Standard, a second-prize winner at Toronto, and first at Ottawa the same year, beating his half-brother—the Toronto first. He was one of the best sons of Judge 2010 and first as of the sons of Judge 2011 and the property of the catalogue of the stock of the sons of Judge 2011 and the property of the sons of Judge 2011 and the property of the sons of Judge 2011 and the property of the sons of Judge 2011 and the property of the sons of Judge 2011 and the property of the sons of Judge 2011 and the property of the sons of Judge 2011 and th

Exhibition. Of the four young bulls in the catalogue, two are sons of Royal Standard, a second-prize winner at Toronto, and first at Ottawa the same year, beating his half-brother—the Toronto first. He was one of the best sons of Judge = 23419= (by imp. Royal Sailor), who was a first-prize Toronto winner and Winnipeg champion, and sire of the Toronto champion of last year and of Royal Banner, first at Toronto, and sold at Mr.Flatt's Chicago sale last August for \$1,505.

Among the calves to be sold are three heifers and one bull got by imp. Guardsman, sire of the American champion, St. Valentine, who is sire of two of the championship winners at the International Live Stock Show at Chicago last December. Among the females in the sale is the excellent breeding Scotch-bred cow, Rose Hill, dam of Ribbon's Choice, second-prize bull calf at Toronto, 1900, lately sold for a long price to go into the herd of Hon. Thos. Greenway, at Crystal City. Manitoba. She is a big, sappy, breedy-looking cow, sired by imp. Goldfinder's Heir, dam imp. Rose of Kinaldie, by Vermont, a Sittyton Victoria bull that proved a noted sire. Gold Lcaf Lady, a smooth, red 4-year-old cow, was sired by Strathelyde, a Strathallan bull, and her pedigree shows in the next crosses such noted imported Scotch bulls as Traveller, Victor Royal, and Royal Barmpton, the sire of Barmpton Hero. Fanny, a roan 3-year-old of great substance and good quality, is of the excellent Syme family, and sired by Crimson Chief, of the Kinellar Crimson Flower tribe, and got by the noted Cruickshank-Victoria bull, imp. Indian Chief. These are but specimen numbers of the breeding and character of the fifty or sixty females in the sale, whose pedigrees all show the impress of notable blood lines.

The date of the sale should be favorable for buyers, as pastures are in full flush, and no stabling is needed. The place is easy of access and of historic interest, Brock's monument standing on the corner of the farm. A 15-minute service of electric cars from Niagara Falls station l

standing on the corner of the farm. A 15-minute service of electric cars from Niagara Falls station lands you on the farm, and five steamers daily from Toronto call at Queenston, close by the farm, which is only 25 miles from Buffalo by electric road, so that visitors can, if they wish, take in the Pan-American Exhibition in the same trip. Capt. T. E. Robson, M. P. P., as auctioneer, will conduct the sale, and it is hoped that a large attendance of farmers and breeders will attend. See the half-page advertisement, and send for the catalogue.

PLEASE MENTION FARMER'S ADVOCATE.



AMERICAN AND HOG FENCE FULLY CUARANTEED. Best steel wires heavily galvanized. Strong, economical, efficient, durable. Local agents everywhere. If no agent in your town write to the makers.

American Steel & Wire Co., Chicago or New York.

At the Oxford County Show at Thame, England, May 15th and 16th, the championship for best Shorthorn bull was won by Mr. Deane Willis' aged red-roan, Regulator, by Twinkling Star, dan Twinkling Star, by British Leader. He was bred by Mr. McGillivray, Fettis, N. B. The female champion Shorthorn was the first-prize aged cow, Welsh Gem, shown by Col. Makins. Mr. Dudding's first-prize two-year-old heifer, Floradora, was the reserve number.

Harrins. Mr. Fitted Brights of Shorthorn stock, held at Hopkins Brothers' farm, at Fort Fairfield, Maine, May 11th, was well attended and made a good average. The right sort of cattle were there, and the men were there that would pay good prices for cattle. Sixteen head sold for \$2,460.00. The stock bred by W. E. Alton, Nelson, Ontario, topped the sale. Cary's herd bull, Nelson, D. S. H. B. =25509=, sold to Hopkins Bros. for \$500.00, Gladys sold to Hopkins Bros. for \$500.00, Estella sold to W. H. Sharp for \$175.00, Estella sold to W. H. Sharp for \$165.00, helfer calf Cherry Pie 10th sold to H. Sharp for \$165.00, helfer calf Cherry Pie 4th sold to Hopkins Bros. for \$65.00: total, \$1,230.00. The five helfers named above are all the get of Nelson =25509=, and bred by W. E. Alton, of Nelson, Ontario.

The cows in the Pan-American dairy test at The cows in the Pan-American dairy test at Buffalo, though not yet fully acclimated, are said to be settling down to work and improving. The quantity of milk given is not yet as high as could reasonably be expected, but will probably be increased when the cows get used to their new environment. The quality test, up to date, is not more satisfactory than that for quantity. The following is the report given of the best of a day's milking in the second week:

| | -14 | A DA | 00 | PER (| CENT. |
|------------------------------|------|-------|-----------|--------------------------|------------------|
| | HIGI | HEST | MILK | HIGHEST MILK BUTTER-FAT. | R-FAT. |
| | Н | (ECO) | RECORD. I | Highest. | Highest, Lowest. |
| Jersey-Primrose Park's Prude | 33] | bs | | 5.3% | 4.1 |
| Guernsey-Mary Marshall | 37 | : | ,, (| 5.3 | 3.9 |
| Polled Jersey-Queen. | 58 | , , | ,, (| 8.4 | 4.1 |
| Red Poll-Mayflower. | 41 | ,, 15 | ; | 8.4 | . 80.00 |
| French-Canadian-Rouen | 56 | Ξ, | ,, ? | 4.0 | 3.4 |
| Shorthorn-Miss Molly | 30 | ., 1 | ,, 7 | 4.0 | 3.0 |
| Brown Swiss-Hope | . 36 | 1 | ,, 0 | 3.9 | 3.0 |
| Ayrshire-Kirsty Wallace | 00 | ; | ** (| 3.8 | 3.5 |
| Holstein-Tidy of Abbekerk | 11 |)[,, | ,, (| 3.5 | ~ ~ |

Following is a statement of a week's work of the best cow of each breed in the utility test, the skim milk and manure offsetting the work, the feed being charged up to the cow and credit given for her butter product:

Ayrshires.—Cost, \$1.34 per cow; butter, at 25c. per lb., \$3.46 to \$3.05—Kirsty Wallace leading, with \$2.12 net earning.

Guernseys.—Cost, \$9c. to \$1.18; butter, \$3.81 to \$2.70—Mary Marshall best of all the herds, with \$2.76 net earning.

Jerseys.—Cost, \$1.07 to \$1.14; butter, \$3.27 to \$3.47 per primrose leading, with \$2.18 net earning.

Hotsteins.—Cost, \$1.02 to \$1.24; butter, \$3.28 to \$3.04—Beauty of Norval leading, with \$2.20 net earning.

Shorthorns. — Cost, \$1.28 to \$1.29; butter, \$3.19 to \$2.49—Miss Molly leading, with \$1.91 net

earning.

French-Canadian.—Cost, 84c.; butter, \$2.29 to \$1.63—Denise Championne leading, with \$1.45 net earning.

NOTICES.

A New Binder Twine Enterprise,—Canadian farmers in all grain-growing districts will read with pleasure the announcement of the Walkerton (Ont.) Binder Twine Company, else-Walkerton (Ont.) Binder Twine Company, elsewhere in this issue. It is a genuine co-operative establishment, 95 per cent. of the stock being owned and controlled by 5,527 of the most progressive farmers of the Province. The plant is one of the best in existence, and three superborands of twine are turned out at very favorable terms. Read the annouement.

able terms. Read the annoucement.

Newton's Horse Remedles.—The old idea that "heaves" in horses is incurable is shown to be incorrect by a pamphlet issued by the Newton Horse Remedy Co., Toledo, Ohio, giving many testimonials of notable horsemen who have cured permanently many established cases of heaves. Many of these horsemen also cured cases of chronic cough and distemper. It is also highly spoken of as an indigestion cure, as well as a worm expellant and horse conditioner. Many veterinary surgeous use it in their practice. The pamphlet is useful to all horsemen, as are also Newton's remedies.

NOTICES.

Complete Stock Doctor.—The World Publishing Company, of Guelph, Ontario, have, at great expense, brought out a new stock book. It is stated to be completely up to date, and as a veterinary book far in advance of any other. The Professors of the Ontario Agricultural College at Guelph have contributed largely to the work in various departments and assisted to revise and adapt the work thoroughly for the Canadian farmer. An advertisement of the work, including testimonials, will be found on page 382 of this issue of the Farmer's Advocate.

Bacteriological Investigations.—Mr. F. C. Harrison, Bacteriological Department, Ontario Agricultural College, Guelph, writes: We send you a circular entitled "Assistance Offered to Creameries, Cheese Factories, and Private Dairies." On account of the importance of this for buttermakers, cheesemakers, and farmers, I trust that you will make mention of it in the columns of your paper, and also of the fact that we have announced in last year's College report, which has just been issued, that we offer to diagnose suspected cases of anthrax, tetanus, lumpy jaw, hog cholera, poultry diseases, etc. Full particulars as to how to send samples, etc., are given under the report of the Bacteriologist in the 1900 College report. Bacteriological Investigations.-Mr. F. (ologist in the 1900 College report.

Growing Plant.—The Ontario Wind Engine

Growing Plant.—The Ontario Wind Engine & Pump Co. of Toronto, have recently added a substantial building, 40x100, to their already large factory. The basement and first floor are to be used for the manufacture and construction of the woodworking department. The second floor will be fitted up for offices and storerooms. They have also just completed the construction and fitting up of a building for galvanizing purposes, which is considered to be one of the best plants of the kind in Canada. Great improvements have also been made in Great improvements have also been made in the foundry equipment, and among other things they have put in is an excellent cupola. The output from this factory has increased rapidly year after year.

GOSSIP.

Gos. Isaac & Bros., Bomanton, Ont., importers and breeders of Shorthorns, write: "Our herd of imported Shorthorns have done exceedingly well during the winter. They arrived from quarantine in January, and are an exceptionally good lot. They have been in great demand by breeders, and we have made the following sales: To Hector Cowan, Jr., Paulline, Iowa, 17 head, consisting of two 2-year-old heifers, of Cruickshank's Broadhooks families; one by Scotland's Fame (73585), dam Sweet Cicely, by First Consul (67072), and the other by Silver Star 73627, dam Bride's Maiden, by Merry Archer 67477; a roan 2-year-old heifer, bred by A. Innes, Cushnie, Aberdeenshire, Scotland, sire Prince Charlie 73263, dam Floss, by Nairn 63035; a roan 2-year-old heifer, bred by Alex. McDonald, Dunballoch, Aberdeen, sired by Jubilee Star 72448, dam Stella, by Merry Archer 67477; a red and a roan, 2-year-olds, bred by Mr. Jas. Hay, Little Ythsie, sired by Statesman 71687, dam Lady Laura 10th, by Beaumont 65138; a roan, sired by Prince Charles 75265, dam Flora, by Plantagenet 57868; one yearling heifer, bred by Alex. Campbell, Deystone; a roan Nonpareil 32nd, by Clan Alphine 60495; two roan yearling heifers, bred by Sylvester Campbell, Kinellar, one of Maid of Promise family, sired by Count Amaranth 74289, dam Maid of Promise 11th, by Emancipator 65447, and the other of Queen family, by Count Amaranth 74289, dam Kairy Queen 14th, by Stanley 71675; a roan yearling, bred by George Walker, Tilly Greig, sire K. C. B. 72755, dam Mas Wosewood 54th, by Cap-a-Pie 58591; three bred by Francis Simmers, Whitesides; two sired by Count St. Clair 74300, dams by Cash Box 66791; red yearling, sired by Count St. Clair, dam Mary Ann of Lancaster, by Cash Box 66791; a red bull call, bred by T. A. Anderson, Ballachragan, A berdeenshire, Scotland, sired by Silver Star 73627. This is a calf of rare quality, and promises to make an excellent bull. These were all imported last September, and were carefully selected from some of the best herds in Scotland. Also one some of the best herds in Scotland. Also one Canadian-bred cow, six years old, one heifer two years old, and one yearling of the Ury family. This lot is considered by expert judges to be one of the finest lots, both as to

Chicago Sheep Shearing Machine 1901 Model Stewart's Pat.

Price \$15

Guaranteed to shear any kind of wool that grows.
All gears cut from the solid metal and hard-

BOOK ON SHEARING just published. Finely strated, with valuable hints for fast and easy shearing R. M. Marquis, champion of the world, will be senee to any sheep owner on application. Address CHICAGO FLEXIBLE SHAFT CO.

quality and superior breeding, that has been imported by breeders of the United States for many years. Mr. Cowan is to be congratulated in being successful in securing such a prime herd of Shorthorns.

THE SUMMER HILL YORKSHIRES.

A representative of the Farmer's Advocate recently had the pleasure of looking over the noted Yorkshire herd of D. C. Flatt & Son, Millgrove, Ont., and found the stock in fine healthy growing and breeding condition. Over fifty breeding sows, of which over thirty are imported, are doing good work in producing large litters of the true bacon type, the get of large litters of the true bacon type, the get of the high-class imported boars in service, prominent of which is the noted Bottesford Wonder, pronounced by many experienced breeders and expert judges the best of the breed ever imported to Canada. In his everyday working condition he shows superior quality and conformation, and stands well on the best of bone and feet, while his stock is coming of the same stamp. Several other first-class imported boars are in use in the herd, namely: Rudington Lad 3rd, St. Peter, Forest Ranger, Holywell Diamond, also the Canadian-bred boar, Look Me Over, first prize at Toronto, 1898, and Summer Hill Ruler, first prize at Toronto and London, 1900.

well Diamond, also the Canadian-bred boar, Look Me Over, first prize at Toronto, 1898, and Summer Hill Ruler, first prize at Toronto and London, 1900.

Respecting their 1901 importation, Messrs. Flatt write, under date May 23rd: — We received, on May 9th, by S. S. Tutonia, a very choice lot of young sows, principally drawn from the herd of the Earl of Roseberry, Dalmeny Park. We have no hesitancy in saying this is the best lot we ever imported. They are all young and most of them in pig to the Earl of Roseberry's best stock boars. We desire to make particular mention of the sow, Dalmeny Duchess XVII., farrowed Sept. 15th, 1899. She measures from root of tail to nose, 6 ft. 2 inches, and stands 38 inches high on short legs. Mr. Sinclair, who is manager for the Earl of Roseberry, claims this to be the best sow they ever bred, and has refused many temping offers for her from the most noted breeders in England.

Parties desiring new blood could not do better than to secure some of the offspring from some of our imported sows. It has been our object to bring out only the best. We do not ask the public to believe all they see in print, but give all an invitation who are interested in the production of the ideal bacon hog to give us a call and inspect our herd.

We intend to exhibit at the leading fairs, including the Pan-American at Buffalo. Our boars, Summer Hill Ruler and S. Hill R. G., that won first and third at Toronto last year in under-year class, have gone on extra well, and at twenty months old weighed 700 lbs. and 687 lbs., respectively, still maintaining their bloom and quality.

Trade has been good with us, selling double the amount of stock we did a year ago this time. It has been our contention for some third of our preduct it graing over the lines.

time that there was a great opening for York-shires in the United States, and to-day one third of our product is going over the lines, and in a great many instances to parties start-

A Farm Furnace

The "Sunshine" is just the furnace for a farm home. It burns either coal or wood, and has double feeddoors which will admit large blocks of wood.

With a "Sunshine" furnace a farmer can burn up his rough wood in fall and spring, and can use coal in the severe winter months when a steady heat is necessary.

Made in three sizes.

Descriptive pamphlets sent free to any address.

Please mention this paper when writing.

The McClary Manuf'g Co'y.

London, Toronto, Montreal, Winnipeg, Vancouver; St. John, N. B.

by inc

DISPERSION SALE

OF THE -

QUEENSTON SHORTHORN HERD.

Owing to the dissolution of the firm of ISAAC USHER & SON, the entire herd of 70 head of registered Shorthorns will be sold by auction, on

JUNE 19, 1901,

The herd comprises selections from some of the best herds in Canada, and is headed by the high-class Cruickshank bull, Lord Gloster 26995=, who is also included in the sale. Many of the females are in calf to him, or have calves at foot by him or by other first-class bulls.

> Farm 3 miles north of Niagara Falls. Electric service from Falls to farm. Five steamers from Toronto daily call at OUEENSTON.

> > FOR CATALOGUES, APPLY TO-

CAPT. T. E. ROBSON,

AUCTIONEER.

HUDSON USHER.

QUEENSTON, ONT.

MAPLE



LEAF

The Ontario Farmers' Cordage Co., Ltd., BRANTFORD, ONT.

IN 50-lb. BAGS.

THREE BRANDS:

NO PAPER.

"GOLD LEAF," 650 FEET PER LB. "SILVER LEAF," 600 "

"MAPLE LEAF," 500 WRITE FOR PRICES.

ORDER SAMPLE BALE

NOTICE.

Experiments with Fertilizers.—To apply a fertilizer to soil that already has sufficient of that ingredient is waste of material and labor. Before using artificial fertilizer on a large scale, it is wise to learn the needs of our soil, and then use what is needed. There has recently been issued a pamphlet, "Experiments with Fertilizers," from N. C. State Horticultural Society, designed to instruct farmers how to carry out practical field tests on a simple scale, to show which combinations are needed. The pamphlet is sent free on application to the Superintendent of the Exp. Farm, Southern Pines, N. C., U. S. A.

WESTERN SHORTHORN SALES.

WESTERN SHORTHORN SALES.

On May 14th a combination sale of Shorthorns from ten Wisconsin herds was held at the Agricultural College farm, at Madison, at which 56 head sold for an average of \$247. The consignment of Geo. Harding & Son, Waukesha, 12 head, made an average of \$339, and that of C. E. Blodgett, 10 females, an average of \$361. The roan yearling heifer, Bonnie Lassic, bred by Mr. Win. Linton, and shown by Capt. Robson at Toronto and London last year, sold for \$680.

The Ohio sales of Messrs. C. L. Gerlaugh and W. I. Wood were very successful, the former realizing an average for 35 head of \$463.30, and the latter for 46 head an average of \$244.35. The highest price, \$2,200, was paid by Mr. W. D. Flatt, Hamilton, Ont., for Mr. Gerlaugh's imported roan two-year-old heifer, Missie 165th (mp.), winner of 1st prize as over a year and under 1s months, and reserve for junior championship, at Chicago in Dec., 1900.

British Golumbia.

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

the Province.

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

and in extent from 1 acre to 1,000 acres.

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

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536 Hastings St.

LUBRICATING OIL

From the oil wells, for spraying, painting and wash ing trees. No insects or San Jose scale on trees painted with petroleum, Send \$1.25 (by registered letter or post-effice order) for 5 gallons oil. Warranted pure oil. No glucose, paraffine or gum to make it heavy. Full directions with each package. Write

for prices for larger quantity. McCALL & REILLY, PETROLIA. ONT. OIL PRODUCERS,

A veterinary specific Guaranteed for WIND, THROAT &



NEWTON'S HEAVE, COUGH, DIS-CURE

SHROPSHIRE

LAMBS FOR SALE.

WM, PIERCE. om BRINSLEY P.O., ONT. PLEASE MENTION FARMER'S ADVOCATE. PLEASE MENTION FARMER'S ADVOCATE.

CLYDESDALE STALLIONS ALL SOLD.



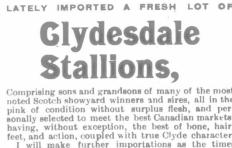
Our importations are always

WELL-BRED BIG GOOD ONES.

The winner for two years at the Canadian Horse Show, Toronto, was imported by us. Early in July we will rail for Great Britain for a new lot, and will earnestly en-deavor to make satisfactory selections of mares and stallions for persons who will inform us just what they

463 King St., Dalgety Bros.,

LONDON, ONT.



Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the times demand. Inspection invited.

Prices consistent with quality.

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Mason & Risch Pianos

Will suit you in every respect. Prices to suit. Some second-hand ones of different makes at greatly reduced prices.
PIANO PARLORS:

211 DUNDAS STREET, LONDON.

YORKSHIRES and POULTRY. Eggs for hatching reduced to 75c, per setting for balance of season. We are offering a number of choice pigs, bred direct from imported stock. Prices reasonable.

A. B. ARMSTRONG, CODRINGTON, ONT. IN WRITING



For Prize List and other Information

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F. W. HEUBACH, General Manager.



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PROPERTY OF FREDERICK C. STEVENS, ATTICA, NEW YORK

Champions of two continents.

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

Magnificent young Stallions and Mares for Foundation Stock,

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

FOR FURTHER PARTICULARS, ADDRESS:

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

Please Mention The Farmer's Advocate.

GOSSIP.

At a combination sale of Aberdeen-Angus cattle, held at Kansas City, April 29th and 30th, 103 head sold for an average of \$203. A cow sold for \$700, and a bull for \$640.

103 head sold for an average of \$203. A cow sold for \$700, and a bull for \$640.

TWO TYPICAL SADDLE HORSES.

On pages 362 and 363 appear illustrations of the cavalry horse, Cremorne, and the saddle horse, Falkirk, both now owned by Mr. Adam Beck, London, Ont. Cremorne is a four-year-old bay gelding, standing 15 hands 2½ inches high, sired by the Thoroughbred, Ranelagh. He was owned by Mr. Llewellyn Meredith, London, Ont., and shown by him at the Military Tournament and Horse Show, Toronto, 1901, winning the Governor-General's prize for best Canadian-bred cavalry horse sired by a Thoroughbred stallion. He was then purchased by Mr. Beck, who won 1st with him at Montreal Horse Show in the cavalry class.

Falkirk, sired by the Thoroughbred, Philosophy, is a bay gelding 15 hands 3½ inches high, and is five years old. He is a more handsome and breedy horse than his portrait shows him to be; he is a model saddle horse and a good jumper. He won 2nd at the Military Tournament and Horse Show, Toronto, 1901, and the following week in Montreal won 1st and championship for saddle horse up to carrying 160 pounds, 1st and championship for light weight hunter, and 1st for lady's saddle horse.

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

Mr. James Yule, manager of the Prairie

pionship for saddle horse up to Carrying 100 pounds, 1st and championship for light weight hunter, and 1st for lady's saddle horse.

MORE HIGH-CLASS SHORTHORNS AND A CLYDESDALE STALLION FOR MANITOBA.

Mr. James Yule, manager of the Prairie Home herd and farm of Hon. Thomas Greenway, at Crystal City, who had been for some time laid up by a severe illness, has, we are glad to know, so far recovered as to have been able to make a trip to Ontario, and has succeeded in securing a half-dozen choice Shorthorns to add to the already strong herd at Prairie Home. From Capt. T. E. Robson, Ilderton, he secured the grand young red-and-white bull, Ribbon's Choice, which won second prize as under a year at the Toronto Industrial Exhibition last year in an exceptionally strong class; also second at London. He is a remarkably smooth, stylish, evenly-fieshed bull, with straight, true lines and first-class quality, and is nicely bred, being a son of imported Blue Ribbon, bred by Campbell, of Kinellar, and of Rosehill. a Kinellar Rosebud, by imp. Gold-finder's Heir 2nd. The smooth, thick-fleshed 6-year-old cow, Frieda, second-prize winner at Toronto last year, a daughter of the sweepstakes bull, Abbotsford, was included in the purchase from Capt. Robson; also the charming roan yearling heifer, Lavinia's Blossom 3rd, by imp. Blue Ribbon, dam by British Chief, a son of imp. Indian Chief, and of the good old Scotch-bred Syme family. This heifer was in the prize list at Toronto last year in perhaps the strongest class ever seen there, and won over several imported heifers, though young for the class. She has wonderfully developed since then, and is a massive, thick-fleshed heifer of grand quality, with well-sprung and deep ribs and the best of skiri and hair. Lizzie Lorne, a handsome red 8-months heifer calf, by Roseberry, a son of imp. Blue Ribbon, was selected from the same herd.

From the herd of J. & W. B. Watt, Salen, was secured the grand red 2-year-old heifer, Matchless 25th, by imp. Royal Sailor. She was the second-prize heife

a sire in Manitoba.

R. Reid, Berlin, Ont.: — "I consider your paper the best all-round farm paper on the continent. I have tried the most of them, and none I like better than the Advocate."

none I like better than the ADVOCATE."

Central Business College, Toronto.— This excellent school, with a regular staff of ten experienced teachers and its fine equipment, will continue its practical work throughout the spring and summer months. To spend these months in Toronto is a great treat, and when they can be used to so great an advantage, it is not surprising that this school, with its enviable reputation, is well patronized, not only by Canadians, but by many from the Southern States, who regularly spend the summer months in Toronto. See advt. in this issue.

Career and Character of Abraham

who regularly spend the summer months in Toronto. See advt. in this issue.

Career and Character of Abraham

Lincoln.

An address by Joseph Choate, Ambassador to Great Britain, on the career and character of Abraham Lincoln—his early life—his early struggles with the world—his character as developed in the later years of his life, and his administration, which placed his name so high on the world's roll of honor and fame—has been published by the Chicago, Milwaukee & St. Paul Railway, and may be had by sending six (6) cents in postage to F. A. Miller, General Passenger Agent, Chicago, Ill.

Alfalfa Culture.—Mr. F. D. Coburn, the indefatigable Secretary of the Kansas State Department of Agriculture, has written probably the most complete and up-to-date treatise (published by the Orange, Judd (o) on the nature, growth and use of alfalfa that has yet made its appearance. How highly this plant is appreciated as a stock food would appear from Kansas itself, where the area grown has increased from 34,384 acres in 1891 to 276,008 in 1900, or over 803 per cent. The printing, binding and illustrating of Mr. Coburn's volume are equally well done, and it is a treasury of facts in concise form (161 pages) on the subject. Price, 50 cents.

3 Holstein-Friesian YEARLING BULLS of for sale. Apply to o

None genuine without the signoture of the Saurence, Williams Co-Sole Amporters for Proprietors for the CLEVELAND.O. U.S.E. CANADAS.

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 FIBING. Impossible to produce sear or blemish. Every bottle is warranted to give satisfaction. Price 31.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

(OIL OF TAR.)

Non-poisonous, cheap and effective. De-

stroys Scab. Lice, Ticks. Foot Rot, etc.

Write for Testimonials and Circulars, Manufacturers: The West Chemical Company,

TORONTO, ONT. For Contagious Abortion use West's Fluid.

Clydesdales and Ayrshires Imported and home - bred. Also Dorset Horned sheep, and the leading varieties of poultry.

ROBERT NESS & SONS, Howick, Que.

Imp. Clydesdale Stallions From such well-known sires as Sir Everard (5353), Prince Roberts 7135, Prince Alexander 8899.

2 Imp. Shorthorn Bulls.
4 Bulls Imp. in Dams.
2 Canadian bred Bulls.
21 Imp. Cows and Heifers.
7 Canadian-bred Cows and Heifers. GEO. ISAAC & BROS., BOMANTON, ONT.

COBOURG STATION, G. T. R. FOR SALE.

CLYDESDALE stallions, mares and fillies, representing the best blood in Scotland—Prince of Wales, Darnly, Macgregor and Lord Lyon—including the great sweepstakes winner, The Marquis (1182), a grandson of Prince of Wales and Macgregor; also the first-prize 3-year-old at Ottawa this season.

THOS. GOOD, Richmond P. O., Ont. R. R. Station, Stittsville, C.P.R.

FOR SALE:

Clydesdales and Shorthorns.

Young stallions and fillies bred from imported sires and dams. Also a choice bunch of Shorthorns, of both sexes and all ages, including a few extra choice young red and roan heifers and bulls. JOHN BRIGHT, Myrtle, Ontario.

IT PAYS TO CARE FOR YOUR HORSE.



NATIONAL GALL CURE

Is the only speedy and sure cure for GALLS, SORE BACK AND SHOULDERS, CORNS, SCRATCHES, MUD SCALDS, ETC.

National Gall Cure is wonderful in its effect, no other preparation in the world can equal it, and it does its work while the horse is working.

For sore teats on cows it gives immediate and certain cure.

OUR SPECIAL OFFER.

On receipt of 50 cents we will send **two** full sized boxes of National Gall Cure, which are sold at 25 cents each, and a full nickel plated bit as shown in above illustration for 50 cents.

50 cents. Money refunded if not found satisfactory. National Gall Cure is for sale by all deal-

When ordering from us, please write name and address plainly and enclose this advt.

ENGLISH EMBROCATION CO'Y. 337 D. ST. PAUL ST., MONTREAL

BONNIE BURN STOCK FARM 40 rods north of Stouffville Station, Ont., offers two strong, lusty SHORTHORN BULLS, fit for service. Also two year-old heifers with calf. Shropshire sheep all ages and kind.

•D. H. RUSNELL. Stouffville, Ont.

Wm. Suhring, Sebringville P. O., Ont. | PLEASE MENTION FARMER'S ADVOCATE

JUNE

Buds, employe 9100, L Royal have be Royal Cloud We are

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Come

for

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

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

Our SHORTHORN herd was founded over 30 years ago, and contains such tribes as the Village Buds, Matchless, Missles, Mildreds, Stamfords and English Lady, upon which we have employed such bulls as Barmpton Hero 324, Young Abbotsburn 6236, Challenge 2933, Perfection 9100, Lord Lansdowne (inp.) 2712, Clan Stuart 14381, Canada 19536, Sittyton Chief 17060, Royal Sailor (imp.) 18959, Royal George 28513, Clipper King 16293 and Judge 23419, all of which have been first-prize winners wherever shown. Royal Victor 34681 and Royal Wonder 34682, by Royal Sailor (imp.), and out of English Lady and Mildred dams, now head the herd, assisted by Roan Cloud 31317, by Lord Gloster 26995, and out of Melody 21992, a descendant of the Buckingham family. We are now offering young bulls, cows and helfers for sale, of Scotch type.

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

THREE COLLYNIE-BRED BULLS IN SERVICE

Scottish Hero, Joy of Morning, Scottish Beau, By Scottish Archer.

By Pride of Morning.

By Silver Plate.

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

Shropshire and Hampshire Down Sheep.

M. H. COCHRANE, COMPTON CO., P. Q.,

G.T.R., 117 MILES EAST OF MONTREAL.

HILLHURST STATION.

QUEENSTON CEMENT.

The demand for our cement in 1900 justified us in adding largely to the capacity of our cement works. The indications are that this year's business will be still greater. We start the new century with an equipment which for the manufacture of natural rock cement is not excelled in America.

We shall be glad to assist you in making plans for new farm buildings or for remodelling old ones. Our experience should be of value to you. It will pay you to investigate our system of

Write us for prices or for estimate of cost of any kind of concrete work.

Usher, Proprietor,

OUEENSTON, ONT.

OFFER FOR SALE

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

Scotch Shorthorns and Shropshire Sheep.

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

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

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

Rapids Farm Ayrshires.

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

Toronto, London, and Ottawa, in 1900.

Come and see or write for prices.

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

Robert Hunter, Manager

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



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

Patent Barclay's FOR THE CURE OF

BALKING AND KICKING HORSES.

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

THE BARCLAY MFG. CO., Brougham, Ont.



High quality, Early-maturing Herefords

Prizewinners. Young bulls,

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

H. D. SMITH, COMPTON, QUE.

R. Mitchell & Son,

Burlington Jct. Station, Nelson, Ontario.

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

MILK FEVER IN COWS.

Symptoms, cause, and treatment by the Schmidt system explained by

R. WILLIAM MOLE, M. R. C. V. S., Price 25c. 443 Bathurst St., Toronto.

For Sale Two choicely-bred SHORT HORN BULLS, 12 and 18 months; also cows and heifers, with calves at foot and bred again to imported Red Duke = 36084 = (77585). 54 head to select from. DAVID MILNE & SON, om Ethel, Ont.

SHORTHORNS: We are offering for sale 8 bulls, from 8 months to 3 years old, by Mungo 2nd and Scottish Bard. Also a few cows bred to Baron's Heir.

ROBT, GLEN, Owen Sound, Ontario.

I WILL IMPORT

Shorthorns and sheep. Orders sent to me in care of Alfred Mansell & Co., College Hill, Shrewsbury, Eng., until July 1st, will receive careful attention. - om

ROBERT MILLER, Stouffville, Ontario.

CENTRE WELLINGTON SHORTHORNS

Herd consists of Scotch and Scotch-topped females. with Lord Stanley 4th = 22678 = at the head. Stock all ages for sale. Farm adjoins the town. H. B. WEBSTER, Fergus, Ont.

FOR SALE:

Yearling and two-year-old Short-horn heifers, in calf to imp. bull. PRICES MODERATE.

m G. A. BRODIE, Stouffville Station. Bethesda, Ont.

Greenwood, Ontario, Canada.

HIGH-CLASS

(First Importation Made in 1874.)

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

OFFERS FOR SALE

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

Railway stations—Pickering, on main line of Grand Trunk Railway, 22 miles east of Toronto, and Clare-mont, 23 miles east of Toronto, on the C. P. Railway. Catalogues on application.

For Sale: 3 Shorthorn bulls of first-class Scotland's Fame (imp.) and Bold Britain, bred by John Isaac, Markham. Also some choice cows and heifers. F. A. GARDNER, Britannia, Ont. PEEL COUNTY.

SHORTHORN BULLS AND HEIFERS

FOR SALE.

Choice quality and best Scotch breeding. Imported and home bred. Imported Knuckle Duster (72793) and imp. Royal Prince head the herd, which has furnished the Provincial Fat Stock Show champion three out of the last five years. Catalogues on application.

H. SMITH, HAY, ONT. Exeter Station on G. T. R., half a mile from farm.

M. E. Jones & Co., Williamsville, Ill., and S. E. Prather & Son, Springfield, Ill., held a sale of Shorthorns at the latter place, May 1st and 2nd, at which Jones & Co.'s 4-year old imp. cow, Stella, by Star of Morning, and her heifer calf, brought \$2,200; Mr. E. W. Bowen, Delphi, Ind., being the buyer. Imp. Sybella, by the same sire, brought \$1,025. The imported 11-months bull, Scottish Signet, by Scotland's Crown, sold for \$1,315. Messrs, Jones' 45 females averaged \$306, and 11 bulls \$115. The 78 head sold in the two days made an average of \$290.

Shorthorns and Leicesters.

Herd Established 1855.

A number of young bulls, cows and heifers for sale. Herd headed by imported Christopher 28859, and Duncan Stanley =16364 =. Grand milking cows in herd. Also a number of Leicesters of both sexes, from imported foundation.

JAMES DOUGLAS.

CALEDONIA, ONT.

YOUNG SHORTHORNS FOR SALE

Our present offering includes several choice young bulls fit for service, sired by "Scotland Yet," and out of Warfare (imp.) dams; also bull calves, from Blue Ribbon (imp.), and out of Royal George cows. Inspection and correspondence solicited.

A. & D. BROWN. M. O. RAILWAY. -om IONA, ONTARIO.

WOODSLEE STOCK FARM.

FOR SALE: 3 Shorthorn bulls, 15 months old, two reds and one roan. Well developed, healthy, and thick fleshed.

S. G. LITTLE, Hagerman, Ont.

W. PATTON, Manager. Unionville Station, G. T. R.

Shorthorn Bulls

Also cows in calf and yearling heifers. All of straight Scotch breeding.

SHORE BROS., WHITE OAK, ONT.

SHORTHORNS. FOR SALE.—Bulls: Two 1 year old and one 8 months. A few heifers of choice breeding and superior quality. AMOS SMITH, Trowbridge P.O., Listowel Stn.

PIG. CASTRATION.

DR. J. WILSON, V. S., WINGHAM, ONT.,

Specialist in the castration of ridgelings.

and testimonials on application.

Terms om

Shorthorns for Sale. Two excellent bulls, sixteen months old; roan in color; well bred and well grown;

at reasonable prices. D. ALEXANDER, - BRIGDEN, ONT.

NEWCASTLE HERD OF Shorthorns and Tamworths.

One choice 2 year-old heifer. About a dozen boars, ranging from 2 to 4 months old; also a few nice young sows—all from Toronto prize stock. Be sure to write for prices. o COLWILL BROS., Newcastle, Ont.

SPRINGBANK FARM. Shorthorn Cattle, Oxford Sheep, and Bronse Turkeys. Young bulls for sale.

JAS. TOLTON, WALKERTON, ONT. J. R. McCallum, Iona Station, Ont.

Offers young SHORTHORN BULL'S and HEIFERS, of choice breeding, at reasonable prices. Iona Stn. on M.C.R., half a mile from farm,

SHORTHORN CATTLE AND LINCOLN SHEEP.

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

J. T. GIBSON,

DENFIELD, ONT.

Maple Lodge Stock Farm ESTABLISHED 1854.

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

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

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

T. DOUGLAS & SONS, STRATHROY, ONT., BREEDERS OF

SCOTCH SHORTHORNS.

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

JOHN DRYDEN.

BROOKLIN, ONTARIO,

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

GOOD QUALITY AND CHOICE BREEDING.

SHORTHORNS.

6 choice young heifers, 4 imported cows. Also 16-months-old home-bred bull. A. P. ALTON & SON,

Burlington Junction Station. Appleby P. O.

SHORTHORNS

SCOTCH IMPORTED.

160 Head

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

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

AUGUSTAS CLARAS NECTARS GOLDIES JENNY LINDS VICTORIAS **MATILDAS** BESSIES **CROCUSSES**

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MEDORAS MINAS VILLAGE MAIDS **BEAUTYS** MISS RAMSDENS **FLORAS** RAGLANS LUSTRES GEMS OF THE VALE 160 Head

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

IF INTERESTED, COME AND SEE US, OR WRITE

CARGILL & SON.

CATALOGUE FREE.

CARGILL, ONTARIO, CANADA.

Since our Chicago sale we have imported sixty-two head, including some Royal winners; they were pronounced in Scotland superior to past importations. We try to import the best, believing that this is one of the ways to assist in improving the breed on this side of the water. Being thoroughly convinced, also, that a bull of the right sort is even more than half the herd, we have decided to keep the following choice ones:

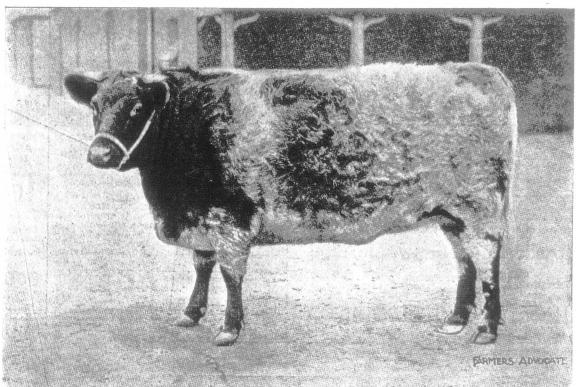
Imp. Lord Banff.

Bred by A. Watson; of the Campbell Bessie family.

Imp. Consul.

Bred by J. D. Fletcher; of the Campbell Claret family. Consul was awarded first at Edinburgh, first and champion at Provincial Union, first and champion at Creiff, and second at the Highland. His sire, Watchword, bred by Wm. Duthie, was first at the Highland in 1895 and 1896, and got by Scottish Archer. Watchfire, by Watchword, was first at the Highland, 1897. Consul is the highestpriced bull imported to Canada.

Hamilton is a city of over 50,000 inhabitants, located on main line of Grand Trunk Railway, between Chicago and Buffalo; also connected by Canadian Pacific Railway and Michigan Central Railway-branch lines.



CICELY.

Bred by Her late Majesty the Queen; undefeated in her class and many times champion; imported by W. D. Flatt.

Bred by Wm. Duthie; of the famous Missie family. He had many friends for first choice at Messrs. Marr and Duthie's sale. Mr. Beck, representing the Prince of Wales, made next to last bid.

Imp. Wanderer's Last.

Bred by W.S. Marr; also of the Missie family. Is the last calf got by that renowned Cruickshank bull, Wanderer. Mr. Marr considers this youngster very prom-

We keep in our herd a choice lot of both imported and Canadian cattle, of both sexes, from which to make selections. Personal inspection invited. Parties desiring to see the herd will be met on arrival of trains at Hamilton if notice is given. Visitors always welcome.

We have at present for sale the red yearling bull, Singapore, by Golden Star, 1st and champion at Royal Northern last year. We have also a good Canadian-bred bull for sale, fit for servive.

W. D. FLATT, 378 HESS ST. SOUTH, HAMILTON, ONT.

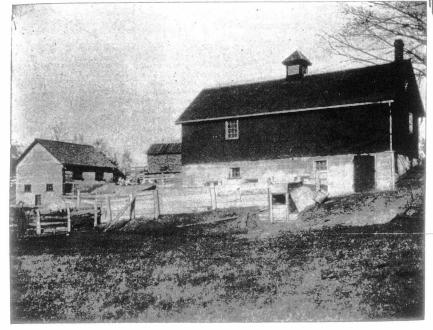
JUNE .

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Concrete Piggery and Henhouse

OF MR. FRANK LOCKWOOD, DELAWARE, BUILT WITH

Thorold Cement.



THE HENHOUSE. Wall, from foundation to peak, built A vith THOROLD CEMENT.

THE PIGGERY.

Basement walls built with THO GOLD CRMENT.

Read what Mr. Lockwood says:

Delaware, Ont., Mar. 16, 1900.

ESTATE OF JOHN BATTLE, Manufacturers of Thorold Cement, THOROLD, ONT. : BRATER OF JOHN BATTLE, Manufacturers of Thoroid Cement, Thoroid, 11 gave the best of satisfaction, and I recommend it to all who intend building. Both buildings are piggeries. The largest one is 20 x 40, 8 ft. high, 12 in, wall next the bank, and 10 in. on other side and both ends. I do not know just how much material I used—have forgotten—but I used 5 to 1 of cement. Could not say just the time I was building it. Had five men, and six part of the time. The small building is 16 x 20, cement walls 11 ft. high at the eaves and extend to gables, walls 9 in thick. The top story is a hennery. Took five men about 5½ days to build this one. There are cement floors in both, and cement troughs also. The top story of the largest building is a granary for 20 feet, and machinery the other half. I did not keep count of how much gravel I used, as the buildings are built right on the side of the gravel hill. I supply the township with gravel.

Yours respectfully,

Frank Lockwood.

JOHN BATTLE, THOROLD, ONT.

MANUFACTURERS OF THOROLD CEMENT.

The National



REPORT FROM WATERLOO COUNTY.

TO THE RAYMOND MFG. CO., Guelph, Ont.:

GENTLEMEN,—I wish to make a statement that should be of some encouragement to your firm just at this time when your Company is investing a large amount of capital in shops and machinery for the purpose of manufacturing the "National" Cream Separators. I bought a "National" in December, 1898, and received some practical instructions at the O. A. College, Guelph, in the way of making good butter and putting it in neat form for market. The first year I had nine cows and sold \$45.00 worth of butter from each cow, besides keeping the house in butter and having the skim milk fresh, sweet and warm for the calves. In 1900 I received higher prices for the butter, and made \$52.00 per cow from 12 cows, or a total of \$626.73. I market my butter in Toronto and Woodstock, and can find ready sale for more than I can make. Although I am a farmer, I have sold 93 "National" Cream Separators since I got my own, two years ago. The "National" is profitable to a farmer, whether he makes the butter at home or sends the cream to the creamery. I use a Babcock tester, and find the "National" cannot be beat at close skimming. Wishing you success, and hoping you will be able to supply your agents with machines as fast as we need them, I am,

Respectfully yours,
Tavistock, March 20, 1901. Chas, I. Zehr.

NATIONAL" NO. 1 HAND POWER. Capacity, 330 to 350 lbs per hour.

Supply Co.

General Agents for Ontario.

HAWTHORN HERD

OF DEEP-MILKING SHORTHORNS. We are offering 8 young bulls for sale, of first-class quality, and A1 breeding. -om

3 BULLS: 1 two year-old, 2 one-year-olds. A few Win. Grainger & Son, - Londesboro, Ont. THOS. RUSSELL, EXETER P. O. GOSSIP.

The Chicago International Live Stock Show for 1901 will be held from Nov. 30th to Dec. 7th. C. H. Miller, a Michigan reader, writes:—
"Am well pleased with the Advocate. It is full of instructive reading. No up-to-date farmer can be without it."

Some idea of the growth of the export trade in Canadian poultry may be gathered from the fact that one produce company alone is buying 1,000 tons of chickens and ducks for shipment to England this season.

Dalgety Bros., London, Ont., announce in their advertisement that they will sail for Great Britain early in July, and will carefully execute commissions to select and import mares or stallions for those who entrust them with orders and inform them just what they desire. These gentlemen know the horse business thoroughly and are widely and well acquainted with the Old Country breeders.

we are pleased to acknowledge receipt from Messrs. John Thornton & Co., 7 Princess St., Hanover Square, London, Eng., of a handsomely-illustrated and well-printed catalogue, prepared by Messrs. Thornton & Co., of the extensive Shorthorn herd of Mr. H. Dudding, Riby Grove, Great Grimsby, Lincolnshire, and of the grand flock of Longwooled Lincolnsheep maintained on the same great farm, consisting of nearly 3,000 acres. The catalogue contains pedigrees of animals composing a herd of about 250 animals, representing a large number of excellent families, a number of the stock bulls being of choice Scotch breeding, which are the sires of most of the young stock in the herd. The flock of Lincolns numbers about 3,000 head. The annual sale of Shorthorns and Lincolns will be held on August 7th.

J. M. Gardhouse, Highfield, Ont., writes that

which are the sires of most of the young stock in the herd. The flock of Lincolns numbers about 3,000 head. The annual sale of Shorthorns and Lincolns will be held on August 7th.

J. M. Gardhouse, Highfield, Ont., writes that Mr. Jas. Yule, manager for Hon. Thos. Greenway, Crystal City, Man., came and purchased the prizewinning stallion, King of the Clydes. In King of the Clydes, Mr. Greenway has got a first-prize winner three times in succession at Toronto shows, a record equalled by few stallions of his age. He is four years old, and has weight with quality, and that is what is required at the present time. King of the Clydes foals are coming good, and promise to be above the average. Mr. A. J. McArthur purchased the imp. Shire stallion, Bahaillion Vulcan, sired by the old renowned Vulcan. Bahaillion Vulcan, no doubt, will prove a good horse for the West, as his colts are very promising. Mr. McArthur also took along two choicely-bred Shorthorn bulls, by Imp. Prime Minister, one a pure Scotch, of the Clementina family, the other of a pure Booth family (grandam imported). Mr. Adams, of Indiana, secured a Diamond heifer, by Royal Member; grandam by Ranton Robin. Our Leicesters, numbering about 100, are looking after themselves in the fields, but never were in better form. Our crop of lambs is the best lot we have ever had, but most of them are young. We can supply intending purchasers with either show or field sheep. I have still two imp. stallions, and trade is very brisk with people breeding.

The old stalwart Shorthorn breeder, Mr. Wm. Grainger, of Londesboro, is still to be reckoned with when typical Shorthorns meet in the show-ring competing for the much-coveted red ribbon. At our late visit to Mr. Granger's farm, we found, as usual, the cattle in prime condition. Evidently Mr. Grainger's barns were full to overflowing the past winter. Golden Eagle 30943, the present head of the herd, a rich roan, is one of those bulls that are truly a pleasure to look upon: deep, long, compact, no waste timber, well develo

HACKNEYS CHANGE HANDS.

Hackneys Change Hands.

Horace N. Crossley, Sandy Bay Farm, Rosseau, Ont., writes: You will be pleased to learn that at the recent Canadian Horse Show and since I sold the following Hackneys: Rosseau Royal Oak 78, C. H. S. B., 3-year-old stallion; sire, Royal Standard; dam, Lady Cocking. (111) C. H. S. B. Countess Josephine, 2 years; sire, Fireworks; dam, Althorpe Countess. (5510) Imp. Lady Bird, 12 years; sire, Superior; dam, Jessie, by Confidence, (78) C. H. S. B. Miss Roberta, 4 years; sire, Rosseau Performer; dam, Lady Bird, The above all went to the United States, and I also purchased for the same party Mr. Beith's 2-year-old Hackney filly, (102) Helena. (79) C. H. S. B. Jewel was sold to go to Orillia. I have also recently sold one yearling colt, one 2-year-old and one 3-year-old Hackney gelding—all by Rosseau Performer. Rosseau Performer.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS, FROM MAY 1 TO MAY 16, 1901.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS, FROM MAY 1 TO MAY 16, 1901.

During this period thirty-two have been received. Fourteen full-age cows averaged:—Age 7 years 1 month 18 days, 17 days after calving: Milk 436.5 lbs., butter-fat 14.340 lbs., equivalent butter 80 per cent. fat 16 lbs. 11.7 ozs. Five four-year-olds averaged: Age 4 years 3 months 16 days, 27 days after calving: Milk 365.5 lbs., butter-fat 11.732 lbs., equivalent butter 80 per cent. fat 14 lbs. 10.6 ozs., equivalent 85.7 per cent. fat 18 lbs. 11 ozs. Two three-year-olds averaged:—Age 3 years 1 month 12 days, 21 days after calving: Milk 351.3 lbs., butter-fat 10.443 lbs., equivalent butter 80 per cent. fat 13 lbs. 0.9 ozs., equivalent 85.7 per cent. fat 12 lbs. 2.9 ozs. Eleven classed as two-year-olds averaged:—Age 2 years 9 months 4 days, 27 days after calving: Milk 309.1 lbs., butter-fat 10.885 lbs., equivalent butter 80 per cent. fat 13 lbs. 9.7 ozs., equivalent 85.7 per cent. fat 12 lbs. 11.2 ozs. Three full-age cows exceeded twenty younds butter 80 per cent. fat, and four two-year-olds exceeded fourteen pounds each.

IN WRITING PLEASE MENTION FARMER'S ADVOCATE.

Prevention of Disease.

Keep the Stomach Right.

It is surprising what a safeguard a healthy stomach It is surprising what a safeguard a healthy stomach is against disease. And, again, it is not so surprising when it is remembered that the only way we get pure blood, strong nerves and firm flesh is from wholesome food, well digested. It is the half-digested food that causes the mischief. When the stomach is weak, slow, inactive, the food lies in the stomach for hours, fermenting, forming gases which poison the blood and the whole system, causing headache, pains in the back, shoulder blades and chest, loss of appetite, palitation, biliousness

back, shoulder blades and chest, loss of appetite, palpitation, biliousness.

The safest cure for indigestion is Stuart's Dyspepsia Tablets, composed of vegetable essences, truit salts, pure pepsin and golden seal. Dissolve one or two of these tablets in the mouth after each meal. They are pleasant tasting, and mingling with the food so assist the weak stomach that the food is perfectly digested before it has time to ferment.

Stuart's Dyspepsia Tablets cure indigestion and increase flesh, because they digest flesh-forming foods like meat, eggs, etc.

Sold by druggists at 50 cents per package. Absolutely safe and harmless.—Advt.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Topsman = 17847=, champion at Winnipeg, Toronto, London and Ottawa, 1899. High-class Shorthorns of don and Ottawa, 1039.
High-class Shorthorns of all ages for sale. Also prizewinning Lincolns.
Apply om



T. E. ROBSON, Ilderton, Ont.

High-class Shorthorns and Yorkshire Pigs. Just now three 10-months bulls, got by imp. Sirius 15281, great big massive fellows with lots of flesh and quality—away above the average. Also a few superior young cows in calf, and 5 or 6 heifers. We are booking orders now for the spring trade. Can om

JAS. McARTHUR, GOBLE'S, ONT. Goble's Station, G. T. R., 10 miles east of Wood-stock, 2 miles from farm. Visitors met. om

Cows and heifers, also a few young bulls. I have employed sons of Lord Lovel, Royal Member, Perfection, Indian Chief, and Clan Campbell, on Lord Lovel and Abbotsburn females.

WM. HAY, TARA, ONT.

SHORTHORNS, COTSWOLDS, BERKSHIRES and BARRED PLYMOUTH ROCK FOWLS



FOR SALE.—One yearling bull and 5 bull calves, a few cows and heifers, 7 shearling rams. Barred Rock eggs at 75c. per 13, \$2 for 50, \$3.50 per hundred. No other variety of

F. BONNYCASTLE & SONS, Campbellford P. O., Ont.

FOR SALE:

SHORTHORN BULLS AND HEIFERS

from such sires as Mariner (imp.), Royal Judd 17499, Sultan Selam (imp.), Grenadier 26251, and Roseville Abott 30874, on a Victoria foundation. Also one extra Kinellar Stamp 10-mos. red bull. Come or

WILLE,
HURON COUNTY,
EXETER STATION

WILLE,
HURON COUNTY,
EXETER STATION and Telegraph Office.

HOLWELL MANOR STOCK FARM.

SHORTHORN CATTLE, SHROPSHIRE SHEEP, YORKSHIRE SWINE, SCOTCH COLLIE DOGS, BARRED PLYMOUTH ROCKS. Young stock of both sexes for sale, imported and home-bred. Eggs for sale. om

D. G. GANTON, ELMVALE, ONT. SPRINGFIELD FARM Shorthorns, Oxfords,

AND Berkshires. Young bulls and Heifers on hand. Also a few choice Berkshires.

CHAS. RANKIN, Wyebridge, Ont.



FOR SALE:

Three Guernsey bulls, 5, 9, 18 mos. old, sired by Masher (imp.). Six Ayrshire bulls, 1 year and under, sired by Matchless. Shropshire lambs, sired by Canadian Flagstaff (imported direct). Address—



ISALEIGH GRANGE FARM.

J. N. GREENSHIELDS, Prop. o Danville, Que.

GOSSIP.

The Eden Grove herd of Shorthorns, at Red lands Bank, Penrith, was dispersed by auction, April 17th. The average for 49 females was \$150, and for bulls, \$105. The highest price, \$255, was paid for the roan yearling heifer, Laures-tina 89th, by Royal Bounty.

AGENTS WANTED FOR

THE NEW PICTORIAL CYCLOPEDIA OF LIVE STOCK,

EMBRACING -

Horses, Cattle, Swine, Sheep and Poultry, INCLUDING DEPARTMENTS ON

DOGS AND BEES:

COMPLETE STOCK DOCTOR,

OBJECT TEACHING WITH WRITTEN INSTRUCTION.

GIVING ALL THE FACTS CONCERNING THE VARIOUS BREEDS; CHARACTERISTICS AND EXCELLENCE OF EACH. BEST METHODS OF BREEDING, TRAINING, SHELTERING, STABLE MANAGEMENT AND GENERAL CARE, WITH SPECIFIC DIRECTIONS.

HOW TO BUY AND HOW TO SELL,

INCLUDING CAREFUL AND ILLUSTRATED ANALYSES OF THE

POINTS OF DOMESTIC ANIMALS.

WITH ALL THE DISEASES TO WHICH THEY ARE SUBJECT, HOW TO KNOW THEM, THE CAUSES, PREVENTION AND CURE—GIVEN IN PLAIN, SIMPLE LANGUAGE, FREE FROM TECHNICALITIES, BUT SCIENTIFICALLY CORRECT, AND PRESCRIBING REMEDIES READILY OBTAINED AND EASILY APPLIED.

DESIGNED FOR THE SUCCESSFUL AND PROFITABLE USE OF THE

CANADIAN FARMER AND STOCK OWNER,

HON. JONATHAN PERIAM,

Editor "American Encyclopedia of Agriculture;" editor "Prairie Farmer;" former editor "Western Rural;"

Member Illinois Department of Agriculture; First Superintendent of Agriculture Illinois

Industrial University; Life-Member American Pomological Society; Author
"History Farmers' Movement," "Lesson for Life," &c., &c.,

A. H. BAKER, V. S.,
Veterinary Editor "American Field;" Veterinary Surgeon Illinois Humane Society; Medalist of the Montreal
Veterinary College; Member of the Montreal Veterinary Medical Association, &c., &c.

With important articles and contributions from the following Professors of the Ontario Agricultural College of Guelph, Ontario, Canada:

G. E. DAY, B. S. A ,
Professor of Agriculture and Farm Superintendent.

J. HUGO REED, B. S. A., Professor of Veterinary Science.

H. H. DEAN, B. S. A., of Dairy Husbandry. W. R. GRAHAM, B. S. A., Manager and Lecturer Poultry Department.

OVER 800 APPROPRIATE ENGRAVINGS.

PUBLISHED BY THE

WORLD PUBLISHING COMPANY, GUELPH, ONTARIO. 1901.

The above is the title page of our "Stock Doctor," showing its exact size.

An interesting feature of this book is the many full-page half-tones (photographic illustrations) of the best horses shown at the Horse Show in Toronto in 1901; the best stock at the Ontario Agricultural College, Guelph; the best animals of the Dentonia Herd (Massey Herd), Toronto, Jerseys and Ayrshires, and many other fine specimens of Canadian stock (sweepstakes and prizewinners). And of still greater interest is the vast number of such illustrations of the celebrated prizewinners in England and the United States, showing the finest specimens in the world in horses, cattle, sheep, swine and poultry. The Veterinary and Breeding Departments are simply perfect; the buying and selling thoroughly discussed. The charts for telling the ages of horses and cattle the best ever published. It is a book that no farmer' can afford to be without.

We require agents for this, the best of all Stock Books, in all parts of Canada. It is the cheapest book for its size, and the best all-round stock and farmers' book that has ever been published. Hundreds of testimonials have been received; we only have space for a few. Complete illustrated circular mailed free.

Complete illustrated circular mailed free.

Send for fully illustrated circulars, including practical tests, giving numerous cases of farmers having saved valuable animals by the use of this book. All diseases and accidents are illustrated and explained so as to be readily known, with full and complete instructions what to do. As a veterinary book it is far superior to any other. Hundreds, of farmers say they would not take \$50 for the book if they could not get another. It is also the cheapest book ever published in Canada, and the only book completely and thoroughly up to date. Hlustrated circulars free. Apply

Read the Following Testimonials and Agents' Letters:

GURLPH, ONT, April, 22, 1901.

Gentlemen,—You are at liberty to take photographs of our stock to assist you to illustrate your new, large and very complete "Stock Doctor and Live Stock Encyclopedia."

JAMES MILLS,
President Ontario School of Agriculture, Guelph, Ont.

Gentlemen,—I have much pleasure in congratulating you on the great success of your undertaking. The agriculturist, for whom it is mainly intended, will find it a most useful book of reference—one that will save him

many times its worth.

D. McEACHRAN, F. R. C. V. S.,
Principal Montreal Veterinary College, and Chief Dominion Stock Inspector.

GUELPH, ONT , May 1, 1901. WORLD PUBLISHING CO., GURLPH, ONT.:

World Publishing Co., GURLPH, ONT.:

Gentlemen,—I consider your "New Pictorial Cyclopedia of Live Stock" an extremely useful book for the stockman and the general farmer. The additions which have been made in each department make it a completely up-to-date book. The photographs of the leading animals of the various breeds constitute an education in themselves for the young man interested in live stock. I am contributing to the Swine Department

G. E. DAY, Prof. of Agriculture and Farm Supt. Ontario Agricultural College, Guelph.

WORLD PUBLISHING CO., GUELPH, ONT.:

Gentlemen,—I have carefully examined your "Pictorial Cyclopedia of Live Stock," and find a great amount of useful information contained therein, and consider it a valuable work for farmers and stockmen.

J. HUGO REED, Professor
Veterinary Science, Ontario Agricultural College, Guelph.

Guelph, May 1, 1901.

WORLD PUBLISHING CO., GUELPH, ONT.

Gentlemen,—I take much pleasure in saying that I consider your "New Pictorial Cyclopedia of Live Stock" an excellent work for farmers. The illustrations are a prominent feature of the work. As a general farm and veterinary stock book it will be found most useful.

H. H. DEAN, Professor
Dairy Husbandry, Ontario Agricultural College, Guelph.

[Prof. Dean is too modest to recommend specially that portion of the work referring to the Dairy Husbandry, as he is writing that portion himself.]

GUELPH, May 1, 1901.

WORLD PUBLISHING CO., GUELPH, ONT .:

Gentlemen,—I have carefully examined your "New Pictorial Cyclopedia of Live Stock," and find it very complete in all departments. It is a book that should be of great value to all farmers. As to the part of the work devoted to Poultry, the fact that I myself contribute to that portion shows that I approve of the same fully,

W. R. GRAHAM, Mgr. Poultry Dept.,

Ontario Agricultural College, Guelph.

Gentlemen,—The book is one that should be in the hands of every stock owner. I can heartily recommend it as the best work of the kind that I have ever seen.

PROF. M. C. BAKER, V. S., Montreal.

Dominion Cattle Breeders' Association.

GUELPH, May 4th, 1901.

THE WORLD PUBLISHING CO., GUELPH, ONT.:

Gentleman, - Having examined your "New Pictorial Cyclopedia of Live Stock," I consider it the most up-to-date work of the kind I have seen. It should prove invaluable to all farmers and others engaged or interested in the care and treatment of live stock and its improvement. Yours truly, ALFRED STONE, Director,

THE WORLD PUB ISHING CO., GUELPH, ONT .:

The "New Pictorial Cyclopedia of Live Stock" published by you contains a large amount of information valuable to farmers and stock breeders.

D. McCRAE, Director, Cattle Breeders' Association.

What Our Canvassing Agents Say.

The following are extracts from a few of our gents' letters. We give their names correctly, but for obvious reasons we do not give their

"I arrived here and commenced work Tuesday noon, and at 5 p. m., Friday, 1½ days, had 15 good subscriptions—13 of them for leather style."

J. A. ALEXANDER. "In one day I sold 9 Stock Books, besides 5 of your other works, and am encouraged to believe that I can put in many such days." S. W. HALL.

 $^{\circ}$ 1 took 52 good subscriptions last week, 41 of which were for leather." JOHN A. DAVENPORT.

"I worked 5! days this week and sold 34 Stock Books—18 leather and 16 cloth. My list now numbers 243, and it still grows." JOS. T. SYKES.

"I canvassed two days this week—saw 16 men and bok 16 orders." W. ARMSTRONG. took 16 orders." "I am doing well in the canvass. There is much sickness among the stock in my neighborhood. Many have died, but not one has died that we have doctored according to directions given in this book. This is helping me in the canvass."

J. J. HURLEY.

"The Stock Doctor is a success—what every farmer needs and wants. I have sold 3 copies to veterinary surgeons, and all pronounce it the most complete work they have ever seen—safe in treatment\and easy of comprehension."

"A work on live stock, somewhat similar to yours, was closely canvassed in my township just before I began. The agent sold 8 copies in the entire township. I have sold 51 of yours in the same field, and am on near through the township yet."

W. E. GAMBLE.

"I have sold 30 of your Stock Books in 11 days, besides to of your other books. Have sold 5 Stock Books to men who have just received the other book." L. C. GALER.

"In three days I have sold 17 Stock Books-11 cloth and 3 leather, and now have 64 good subscriptions. REV. W. J. CKANK.

"My orders now number 297 for your Stock Book, sold in only a portion of this county." W. P. DEWALT.

"This county is flooded with Stock Books, including those of McClure, Stewart, Hines, and Manning, but I shall wipe them all out. I average six subscriptions per day."

R. GRIFFITH, SR.

WORLD PUBLISHING CO., GUELPH,

JUNE 1

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H. Stev

HARRIST GALT ST Riv

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I am out of ness 3 Burke



Rolled Angus bulls (choice ones); 1 Short-horn bull, 11 mos.; Yorkshire pigs, 6 weeks, at \$6.00; Plymouth Rock eggs, settings for \$2.



Aberdeen - Angus Cattle.

Several thorough-bred bulls for sale. Apply to the MAN-AGER, Grape Grange

om C. W. HARTMAN, Clarksburg, Ont.

Wonderful

Have been obtained by over one hundred farmers in the last few weeks

Hersee's Reliable Stock Food to calves and horses.

Hersee's Reliable Stock Food, Poultry Food, Insect Killer, for sale by leading dealers. Send to-day for stock book.

Edwin Hersee, Mfr., WOODSTOCK.

SPRING BROOK Holsteins, Tamworths & B. P. Rocks.

2 choice De Kol bull calves, 1 cow, 2 heifer calves—all De Kols. Tamworths: One boar, 9 months; a few

sows. Orders booked for spring litters.
A. C. HALLMAN.
Waterloo Co. New Dundee, Ont.

BROOKBANK

Is headquarters for Holstein bulls. They are going fast; be quick if you want one. In writing, state age, etc., preferred.

GEO. RICE, Currie's Crossing, Ont. Oxford Co.

Maple Glen Stock Farm. The home of officially tested, Advanced Registry, dairy test and showring-win-HOLSTEINS. A grandson ning herd of Sylva HOLSTEINS. of Carmen Sylva now for sale. Price is in keeping with breed-

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

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

want the best, write or visit—

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

Maple Hill Holstein-Friesians

SPECIAL OFFERING:

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

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

Riverside Holsteins.

2 BULLS 7 months old, sired by Victor DeKol Pictertje, imp. Dams: Wood-land Molly DeKol (imp.) and Jemima Wayne.

M. RICHARDSON & SON, Haldimand Co.

Caledonia, Ont

4 HOLSTEIN BULLS 4 For Sale: From 4 to 7 months old, having sires in their pedigrees from such strains as Inka, Netherland, Royal Aaggie, and Tritonia Prince, and out of imported females that have proven their worth at the pail. imported females that have proven then more imported females that have proven then THOS. B. CARLAW & SON, warkworth.

HOLSTEINS

FOR SALE. I am now offering Holstein calves of both sexes, out of such cows as Panarista Pauline, Inka Darkness 3rd's Jessie DeKol, DeDickert's DeKol, Belle Burke Mechthilde, Pietertje Hartog DeKol, and others, all closely related to DeKol 2nd and Netherland Hengerveld, the greatest of Holstein cows.

J. A. CASKEY, Madoc, Ont.

HOLSTEIN-FRIESIANS.

All are invited to visit **Maple Grove** and see the obteins make their everyday performance. Stock all ages for sale. Address— H. BOLLERT, CASSEL, ONT. B. P. Rocks.

W. R. Bowman, Mt. Forest, Ont. Bibby's "Cream Equivalent." Bibby's "Cream Equivalent" has become a household word with stock-rearers in almost very part of the world.

very part of the world.

It is used to substitute cow's milk where milk is scarce, and to enrich skimmed or separated milk where these products are available. A farmer can, by its means, rear good calves and sell his milk or the butter and cheese fats. "Cream Equivalent" supplies what is lacking in separated or skimmed milk, and yields more economic results than are otherwise obtainable.

It contains no chemicals, and is, therefore, a

thoroughly wholesome food.

Calves take to it readily and thrive well on it.
No other production does the work with the same effectiveness.

same effectiveness.

If you are short of milk, or have only separated milk for your calves, make a trial of "Cream Epuivalent," and you will never again

be without it.

It represents the net results of hundreds of practical tests carried out at our own experimental farm at Hall O'Coole, Cheshire, Eng-

and.

It has the largest sale in the world: every country where the farmer needs an efficient milk-saver or milk-enricher uses it.

You had better send for a trial bag and make your own test.

your own test.

We supply full directions for use.

The price is: 50-lb. bag, \$2.00; 100-lb. bag, \$3.50; freight paid to nearest railroad station.

10 Bay St., Toronto.

J. Bibby & Sons.

JERSEYS.

Registered Jersey yearlings and calves, heifers and bulls. Some pure St. Lamberts from heavy-milking cows, and sired by the pure St. Lambert bull, John Bull of Grovesend 45774, by Nell's John Bull, dam a 20 lbs. 12 ozs. cow, Nettie of St. Lambert 43675, by King of St. Lambert with the price of St. Lambert 2005.

P. H. LAWSON, Nilestown, Ont.

Choice Jerseys FOR SALE.

Finest Butter Stock yet Offered.

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

MRS. E. M. JONES. BROCKVILLE, ONT.

Jersey Calves

From large, deep-milking cows, who have given 7,000 lbs, each of 1½ per cent, milk during the past year; good colors, and from two to six months old.

For description and prices write W. C. SHEARER, - BRIGHT, ONT.

FOR SALE:

Bull calf, A. J. C. C., dropped Mar. 6th, 1901; sired by a son of Two Hundred Per Cent; dam by Perfect Combination; solid color, black points. E. B. HINMAN & SONS, GRAFTON, ONT.



BRAMPTON JERSEY HERD.



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

calved and springers—grand family cows. B. H. BULL & SON, BRAMPTON, ONT.

GLEN ROUGE JERSEYS.

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

FOR SALE: THREE BULL CALVES, from 4 to 10 mos. old, from choice Ayrshires of deep-milking strains. Prices reasonable. Come, or write to o

Carr's Crossing, G.T.R. W. F. STEPHEN, Trout River, Que Brook Hill Farm.

FOR SALE High-class HOME-BRED AYRSHIRES,

including cows, heifers and young bulls out of our prize and sweepstakes cows. Foundation selected with due regard to quality and productiveness. Come or write. WM WYLIE, - HOWICK, QUEBEC.

Maple Cliff Dairy and Stock Farm. BREEDERS OF

AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TAMWORTH PIGS.

For Sale: 5 bull calves, a few heifers; young pigs, pairs not akin; 2 boars, 4 months old; young pigs.
Farm adjoins Central Experimental Farm, Ottawa. R. REID & CO., Hintonburg, Ont.

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

for special prices on Ayrshire bulls from 1½ years to 6 months. Four over 15 months, fit for service, from special milking stock. Sired by prize bull, Jock of Burnside—1684—, also females of all ages, Shropshire sheep of all ages; a number of fine ram lambs. Berkshire pigs of either sex, of the best bacon type. B. P. Rocks.

BOOK REVIEWS.

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

The Garden Book.—The Farmer Company has issued a useful little work, called "The Garden Book," on garden culture. It is divided into twelve chapters, in which the subject is well broken up and treated in a helpful manner. The book is entertainingly written and helpfully illustrated. The author of the work is the noted garden writer. T. Greiner, who has lightened up the matter with occasional pretty appropriate poetic stanzas. The writer's object was to make his brother farmers see in the house garden all that he has found in it, and thus add new comforts, new pleasures and new profits to their calling. The book is bound in paper covers, and sells for 50c.

A Sugar Beet Manual.—Sugar-beet culti-

pleasures and new profits to their calling. The book is bound in paper covers, and sells for 50c.

A Sugar Beet Manual. — Sugar-beet cultivation is a live subject at the present time with Canadian farmers, particularly those of Ontario. For several months past the Farmer's Advocate has devoted a good share of its space in describing from actual experience successful methods in beet-growing. We have, therefore, examined with special interest and pleasure a volume, entitled "The Beet Growers' Manual and Text-book for the Investor in Beet Sugar Enterprises," written by C. W. Hamburger, of Chicago, a copy of which we have received from the Beet Sugar Gazette. The first section of the work contains an excellent account of the history of the enterprise in Europe, and its rise and progress in America; next deals carefully with the practical question of beet-growing, which specially concerns our readers. The author has avoided scientific technicalities, and yet gives us a work of value to the experienced beet-grower as well as the amateur. Intending beet-growers will find its perusal of very great advantage. Part three contains a description of the process of beet-sugar refining, with hints how to secure, build and equip a factory, with much information of value to investors in beet-sugar enterprises. It is a well-printed volume of 130 pages, plentifully illustrated with engravings of beets, machinery for cultivating, harvesting and manufacturing, and may be ordered through this office, at 50 cents in paper cover, or 75 cents in cloth binding.

Rhubarb Culture.—Messrs. J. E. Morse and

Rhubarb Culture,—Messrs, J. E. Morse and G. Burnap are the authors, and the Orange, Judd Co., New York, the publishers of an excellent 50-cent cloth-bound volume on the above subject, of special interest to market gardeners. Forcing vegetables under glass during the winter months has taken great strides within the past decade and grown to be a business of large proportions. One of the latest vegetables to receive attention in this line is the common pie-plant, or hubarb. Unlikemost of the vegetables used for winter forcing, no expensive structures are required. The facilities for growing this vegetable are already found on every farm. Cheap board structures are put up, and heated with an ordinary stove. In these, rhubarb roots are closely packed and then forced into growth. The resulting product is very handsome in appearance, quality, and flavor. For home use, rhubard can also be satisfactorily forced in an ordinary house cellar, using a kerosene lamp or lantern to supply the necessary heat. The best product is said to be grown in absolute darkness. Mr. Morse, who is an expert gardener, gives in detail the commerical method of forcing together with the actual cost, yield, and prices which have ruled for several seasons. In part second Mr. Fiske treats of other methods of forcing, as well as systems of outdoor cultivation. Rhubarb Culture,-Messrs. J. E. Morse and well as systems of outdoor cultivation

Chicago Now a Seaport.—Chicago has long been the leading metropolis of the West, and now the great inland city bids fair to become the London of America, the great entrepot of the world's commercial activities. On April 22nd, the steamship "Northwestern," carrying a cargo of McCormick machines, cleared from the port of Chicago, bound for Liverpool, Eng. This vessel is the first to go from the great manufacturing center of the West direct to Europe. Following the steamer "Northwestern." the "Northman," also carrying a cargo of McCormick machines, cleared from the McCormick docks April 24th, bound for Hamburg, Germany. The cargoes of the two vessels comprised more than 144 carloads of McCormick machines, mostly self-binders and mowers. In making this initial shipment by an all-water route direct to Europe, the McCormick Harvesting Machine Company has made Chicago a scaport, and established a line of freighters that during six months of the year will ply regularly between the Lake City and European ports. Thus the great McCormick Company has set a new pace in the matter of harvesting-machine shipments, the far-reaching importance of which can only be known when the history of the twentieth century shall have been written.

The Doherty Organ.—Continuity of policy and management has conduced in no small Chicago Now a Scaport.—Chicago has long

when the history of the twentieth century shall have been written.

The Doherty Organ.—Continuity of policy and management has conduced in no small degree towards placing the Doherty organ in its present position of eminence in the musical world at home and abroad. For twenty-five years, under the most competent and progressive leadership of Mr. Doherty, the founder of the business, have they given their undivided attention to the construction of reed organs, with the result that they have presented, and are presenting, to the trade an article that is unexcelled. The Doherty gold-medal organ is supereminent in every characteristic of a perfect instrument, and adequately supports in actual service every claim they make for it. No organ that we know of has ever surpassed the Doherty in elevating the standard of excellence in reed organs or in contributing to the development of a high musical taste. Their original and elaborately-designed cases are most artistic environments for the superbaction, the easily-manipulated and reliable stop rigging, and the perfectly-adjusted bellows which dwell within. The Doherty tone is a unique combination of quality and power. Their neat and attractive catalogues show a very large line of styles in both single and double manual organs, and particular attention should be given to their "New Piano," "Harvard," "Victorian," and "Cathedral." Their factories at Clinton, Ontario, Canada, have every possible facility and are equipped with the most modern appliances, enabling them to produce a high-grade instrument at a low price, a fact which has made the Doherty easy to sell and pleasant to buy.

Two hundred bushels of potatoes remove eighty pounds of "actual" Potash from the soil. Unless this quantity is returned to the soil, the following crop will materially decrease. We have books telling about composition, use and value of fertilizers for various crops. They are sent free. GERMAN KALI WORKS, 93 Nassau St., New York.

TREDINNOCK AYRSHIRES

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchenbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars, address

JAMES BODEN, Mgr.,

St. Anne de Bellevue,
Farm close to St. Anne Station, Quebec.
G.T.R. & C.P.R., 20 miles west of Montreal, om

AYRSHIRES AND LEICESTERS We breed for milk and quality, and employ only the best sires. Are now offering young Ayrshires of both sexes.

DONALD CUMMING & SONS, Lancaster, Ont.

DAVID A. McFARLANE, KELSO, P. Q. Breeder of high-class AYRSHIRES.

Young stock for sale from imported and home bred foundation. Prices reasonable. Ayrshire Bulls fit for service, out of big, rugged cows, having good udders and teats, and by sires from deep-milking strains.

F. W. TAYLOR, Wellman's Corners, Ont.

AYRSHIRE FEMALES FOR SALE Carrying the same breeding as our prize-winners, including such offspring as Floss and Tom Brown, the World's Fair winners. We breed for constitution, quality, and pro-

duction. DAVID BENNING & SON, Williamstown. Ont.

FOR SALE:

Choice Ayrshires, AND BARRED ROCK EGGS.

BULLS, from 7 old; also a few COWS AND

HEIFERS. Eggs for hatching, from choice matings at \$2.00 per 15. Incubator eggs \$4.00 per 100.



JAS. McCORMACK & SON, ROCKTON, ONTARIO.

CHOICE AYRSHIRE BULLS.

I OFFER: Five bull calves, one dropped in each of the months of August, November, December, January, and April. Good individuals, and from deep-milking strains.

W. W. BALLANTYNE, om-'Neidpath Farm'' adjoins city, on main line G. T. R.

High-Class Ayrshires and Poultry

GREAT BARGAINS. One choice prizewinning bull calf, eleven months One choice prizewinning bull calf, eleven months old, fashionable color, tracing direct to imp. stcck, \$35.00; one heifer calf, six months old, \$25.00; one bull calf, one week old, price \$15.00. All sired by Royal Star, first-prize bull at Toronto and London. Also two two-year-old heifers; one three-year-old heifer, due to calve this spring; prices right. Also five pair of choice Toulouse geese, \$4.00 per pair. White Leghorns, Black Minorcas, Houdans, and Langshans. For particulars write WM. THORN, Lynedoch, Ont. Norfolk Co. o Trout Run Stock Farm.

The Aldsworth herd of the late Mr. Robert Garne, of Aldsworth, Gloucestershire, was sold May 2nd, when the 80 head made an average of \$215; the highest, Hoguineas (\$577), being paid by Mr. Foljambe for the red-roan yearling bull, Provider, by Now or Never, a Cruickshank Nonparcil, by Scottish Archer, dam by Wrestler, a Wimple bull, by William of Orange, Seventy-four guineas was the highest for a female.

SWISS Patented Design. Made from Finest Quality Swiss Bell Metal.

We sell exclusively to the job-bing trade, but to introduce these delightfully musical toned Swiss Cow Bells more generally, offer them in sets cord. Sizes 4.5 and 6 in. in dia BEVIN BROS. MFG. CO., EAST HAMPTON, CONN.

SALE: HIGH-CLASS AYRSHIRES

One choicely bred (Nov., '99) bull. Several bull calves, sired by our imported bull. A few heifer calves, sired by White Cockade. Young females of various ages. All bred for milk and show-yard. Orders filled for young Yorkshire pigs.
om ALEX. HUME & CO., Menle, Ont.

LIVE STOCK AUCTIONEER. The undersigned is prepared to conduct pure-bred auction sales. 20 years' experience. References John I. Hobson and Alfred Stone, Guelph; Jas Hunter, Alma, and Mossom Boyd, Bobcaygeon. THOS. INGRAM, care Mercury Office, Guelph, Ont.

"Farnham Farm" Oxford Downs.

FLOCK ESTABLISHED 20 YEARS.

Forty superior yearling and two-year rams. Two extra fine imported rams. Sixty yearling ranch rams. Forty yearling ewes, One hundred ram lambs. Stock good and prices reasonable, om

HENRY ARKELL,
Guelph, Ont., G.T.R. Arkell, Ont., C.P.R.

SHEEP BREEDERS' ASSOCIATIONS
American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secre tary, Lafayette, Indiana.

EUROPEAN ADVERTISEMENTS.

ENRY DUDDING, RIBY GROVE, STALLING-BOROUGH, LINCOLN, ENGLAND. Breeder of Lincoln Longwool Sheep and Shorthorn cattle. The Riby Flock of upwards of 1,400 Ewes holds an unequalled record for true type, merit, and quality. Its produce and their descendants have won the highest honors at all the principal exhibitions and shows throughout the world; its wool exhibits being unbeaten. Established upwards of 140 years. Its produce leads the way from the fact that satisfaction is given. The Riby Shorthorn Herd of upwards of 300 selected specimens of Booth, Bates, Cruickshank, and Scotch strains, is one of the largest Herds in 300 selected specimens of Booth, Bates, Cruickshank, and Scotch strains, is one of the largest Herds in Great Britain. Its principal Stud Bulls are: "Pride of Fortune" 73240, s. "Pride of Morning" 1456:4, d. "Flora 2nd," by "William of Orange" 50694; d. "Golden Robin" 68718 (rich roan), s. "Roan Robin" 57993, d. "Golden Sunshine," by "Royal James" 54972; "Prompter" (Vol. XLV.), by "Prefext" 69255, d. "Rissington Lass," by Umpire 13th," 1st and champion at Ombersley, 1898; "Rosario", s. "Wiltshire Count" 69824, out of "Rose Blossom", s. "Wiltshire Count" 69824, out of "Rose Blossom", s. "Wiltshire Count" fins bull, his sire and dam, won 84 prizes, including first and champions. Telegrams: "Dudding, Keelby." Rail. Stations: Stallingborough, 3 miles; Great Grimsby, 7 miles.

REGISTERED Southdown Sheep, Suffolk Sheep AND Berkshire Pigs.

HE Cheveley flocks and herds, the property of Col. H. L. B. McCalmont, M.P., are unique for the purity of their blood, typical character, and individual merit. In their foundation, etc., no expense has been spared in securing

etc., no expense has been spared in securing the best and most perfect specimens of the different breeds. In each case full records are kept of individual pedigrees, so that any selections made from these flocks will, in addition to being of the highest merit and typical character, have also the great advantage of individual pedigrees.

The Southdowns have secured the highest showyard honors during 1900, including first prizes at the leading summer and winter shows. The Suffolks are equally well bred, and numerous prizes have also been won. In fact, for individual merit, pedigree, and purity of breeding, it would be difficult to find better and more suitable flocks of either of these breeds from which to perpetuate their high individual merits. Apply to merits. Apply to-

H. J. GARROD, Cheveley, Newmarket, England.

HAMPSHIRE DOWN

SPLENDID MUTTON, GOOD WOOL, GREAT WEIGHT.

THIS HIGHLY VALUABLE

English Breed of Sheen

Is unrivalled in its rapid and wonderfully early maturity, possessing, too, a hardiness of constitution adapted to all climates, whilst in quality of mutton and large proportion of lean meat it is unsurpassed. Full information of

JAMES E. RAWLENCE.

SECRETARY HAMPSHIRE DOWN SHEEP BREEDERS' ASSOCIATION.

All Early Vegetables

should be forced forward as rapidly as possible in order to get them quickly to market. The profits of the crop frequently depend on a gain of ten days in mar-This can be accomplished judicious and liberal use of Nitrate of Soda.

applied in proper proportions with phosphates and potash salts. Every gardener should use it. Pamphlets and full information free on application to John A. Myers, 12 R John Street, New York City. List of dealers in Nitrate of Soda will also be furnished.

MANSELL'S DISPERSION SALE

Shropshires.

Andrew E. Mansell, Harrington Hall, Shipnal, England, who is settling in Tasmania, will sell by auction, without reserve, on Thursday, August 29th, 1901, his unrivalled flock of Shropshires. Sheep bought for America and Canada will, if desired, be sent in charge of Mr. Robert Mansell. Particulars and catalogues obtained from Alfred Mansell & Co., Auctioneers, Shrewsbury, England. Commissions carefully executed.

Lincoln Longwool Sheep Breeders' Association.

Lincoln Ram Sales

1901.

The 12th and 13th sales of Lincoln Longw oolrams, by members of the Association, will be held in LINCOLN, as follows:

9th AUGUST, 400 RAMS. 6th SEPTEMBER, 500 RAMS.

On view the afternoon before the day of sale

STEPHEN UPTON, Secretary.

St. Benedict's Square, Lincoln, 19th January, 1901.

W. W. Chapman,

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

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

Address: FITZALAN HOUSE, ARUNDEL Cables - Sheepcote, London.

J. E. CASSWELL'S Laughton, Folkingham, Lincolnshire. England. LINGOLNS

Breeder of Lincoln Long-wooled sheep. Flock No. 46. The flock was in the possession of the present owner's great-grandfather previous to 1785, and is unique in having descended direct from father to unique in having descended direct from father to son without a single dispersion sale. At the Palermo Show, 1900, 25 rams bred by J. E. Casswell averaged £54 each; 14 of the best averaged £63 each, this being the highest sale of the season in the Argentine. Ram and ewe hoggs and shearlings for sale; also Shire horses, Shorthorns, and fowls. Telegrams: "Casswell, Folkingham, Eng." Station: Billing-boro, G. N. R.

Shropshires.

Choice yearling rams and ewes for sale now. A grand crop of lambs coming on from first-class importations. For prices write:

OM. PIERCE, BRINSLEY, ONT.

HIDES AND SKINS.

HIGHEST MARKET PRICES. E. T. CARTER

(SUCCESSOR TO JOHN HALLAM). At the old stand, 83 and 85 Front St. East., TORONTO.

Dorset Horn Sheep

THE largest flock in America. The most cele-brated prizewinners at the Columbian Ex-hibition and Canadian exhibitions. Contains more Royal winners than any other, Awarded 5 out of 8 first prizes at Toronto, London and Ottawa in 1900. Flock of 300. Stock for sale always on hand.

SALISBURY, ENGLAND | John A. McGillivray, Uxbridge, Ontario.

GOSSIP.

Last month a Leicester ewe in East Lothian, Scotland, gave birth to five lambs. A cross-bred Leicester and Shropshire ewe in England has gone one better, producing six lambs at a birth, three of which are living.

At a combination sale of Aberdeen-Angus cattle, at Omaha, May 8th and 9th, 110 head sold for an average of \$226.65. One cow brought \$1,025 and another \$1,055. The highest price for a bull was \$550.

The date of the annual sale of Shorthorn cattle and Lincoln sheep from the famous Riby Grove herd and flock of Mr. Henry Dudding, Grimsby, Lincoln, England, has been fixed for August 7th, and the annual sale of Lincoln rams at Lincoln will take place August 9th.

An importation of 13 yearling Lincoln rams and the same number of yearling ewes from the noted flock of S. E. Dean & Sons, Dowsby Hall, Bourne, Lincolnshire, England, has recently been made by J. G. Massey, Fort Logan Col., U. S.

The American Leicester Sheep Breeders' Association (A. J. Temple, Secretary, Cameron, Ill.) and the American Oxford Down Record Association (W. A. Shafer, Secretary, Middletown, Ohio) will hold their annual meetings at town, Onio) will hold their annual meetings at the Pan-American Exposition during the sheep exhibit.

The special features of the last quarterly report of the Kansas State Board of Agriculture, just issued by Secretary F. D. Coburn, consist of a compendium contributed by various writers on the origin, history and characteristics of Shorthorn cattle, and a verbatim report of the proceedings of the 13th annual meeting of the State Board of Agriculture, at which a great variety of farm topics were discussed. Mr. Coburn's reports are always entertaining as well as instructive. entertaining as well as instructive.

A unique feature of a recent market at Newbury, England, was the offer of three three-year-old Shorthorn heifers which were triplets. They were of good size and had each bred a calf, and were so alike in color and general markings that it was considered next to impossible to tell one from the other. They were all bought by one buyer, at an average of \$68 each. It is rarely that bovine triplets all live to grow up and produce offspring. to grow up and produce offspring.

each. It is rarely that bovine triplets all five to grow up and produce offspring.

A meeting of the Board of Directors of the Canadian Jersey Cattle Club was held recently in the Walker House, Toronto. There were present: Capt. Wm. Rolph, President; R. Reid, Secretary; W. E. H. Massey, George Davies, David Duncan, D. O. Bull, H. G. Clark, and W. P. Bull, Solicitor. After some discussion, it was decided not to officially recognize the "Dairy Test" at the Pan-American Exhibition, especially the representation of Canadian Jerseys. The revision of the constitution was then taken up, and, after several material changes, adopted. Steps were also taken for the incorporation of the club. It was decided to hold the annual meeting this year on June 15th. Through the kind invitation of Mr Massey, the meeting will be held at "Dentonia Park." All owners of Jerseys are cordially invited to spend the day at "Dentonia."

Mr. Jas. A. Cochrane, Hillhurst, P. Q., under

invited to spend the day at "Dentonia."

Mr. Jas. A. Cochrane, Hillhurst, P. Q., under date of May 11th, writes of the sheep flock at Hillhurst stock farm: Shearing was finished on the 4th, and the man who clipped our 235 head says he did not find a dozen ticks on the whole lot, thanks to regular dipping with McDougall's Sheep Dip. Thirty-four imported Hampshire Down ewes with 44 big lusty lambs were the last turned out, so as not to suffer a check on short pasture. They are going on satisfactorily, and will be fit to weam by the first of June and take advantage of the rich growth of clover which, with a little grain and cake, will fit the vigorous, hardy ram lambs for their important mission at from six to eight months old, saving one year's keep, a point of some importance in these days of early-maturing live stock.

Mr. Amos Smith, of Trowbridge, Ont., is one

Mr. Amos Smith, of Trowbridge, Ont., is one of the young men that is rapidly coming to the front as a Shorthorn breeder. In looking over of the young men that is rapidly coning to the front as a Shorthorn breeder. In looking over Mr. Smith's beautiful farm and buildings, we found an ideal Shorthorn home, tenanted by some extra nice specimens of that favorite breed. The present head of the herd, Royal Ury 23630, of Messrs. Cargill & Son's breeding, is all that can be desired in a sire, possessing size, substance and quality in high degree. He was sired by the great imported bull, Royal Member. Dam, Ury of Cargill, of the favorite Kinellar Ury family, by imp. Albert Victor. Mr. Smith's previous sire was Scottish Chief (26261), by Scottish Pride (imp.) (20839), and his dam, Crescent, of the Kinellar Clementina tribe. The females of the herd are descended from the Collypic Countess and Vain Maid families, the latter tracing to imp. Vain Maid by the Royal winner, Edgar. At present, Mr. Smith is offering some choice young things of both sexes, from the above sires, and their breeding will commend them to the favor of the most exacting and careful of breeders.

breeding will commend them to the favor of the most exacting and careful of breeders.

When in the vicinity of Ethel, Ont., a representative of the Advocate called on that old pioneer Shorthorn breeder, Mr. David Milne, and found him in his usual happy and genial mood, which, considering his beautiful home and surroundings, together with his large herd of excellent Shorthorns, is not to be wondered at. Mr. Milne's herd consists of some fifty odd head of thoroughbreds. During his long career as a Shorthorn breeder, he has paid particular attention to the milking qualities of his cows, also ever selecting as sires those as perfectly formed and richly bred as inoney could buy, and, as a result, his present herd are so desirable a kind that he is never begging for purchasers. The present stock bull is Red Duke 12.585, imported by John Isaac, of Markham, and bred by John Taylor, of Uras, Stonehaven, Aberdeenshire, Scotland. He is sired by Lord Hampton 1982, a richly-bred Marr Missie by Bapton Czar, a Sittyton Cicely, whose dam is a Marr Missie, by the great William of Orange. Bessic Bell, the dam of Red Duke, is a Bracelet, and runs back to the same noted sire. Red Duke is a model, very perfectly formed and particularly well filled-in back of the shoulders, and will surely make his mark both in the show-ring and as a sire. Mr. Milne is offering some choice young bulls and heifers for sale, bred straight from a number of popular Scotch bred families of high-class individual merit.

A FEW FACTS

About the New Catarrh Cure.

The new Catarrh Cure is a new departure in so-called catarrh cures, because it actually cures, and is not simply a temporary relief.

The new Catarrh Cure is not a salve, ointment, powder nor liquid, but a pleasant-tasting tablet, con-taining the best specifics for catarrh, in a concentrated, convenient form.

The old style of catarrh salves and ointments are

greasy, dirty and inconvenient at the best; the new preparation, being in tablet form, is always clean and convenient.

The new Catarrh Cure is superior to catarrh pow-

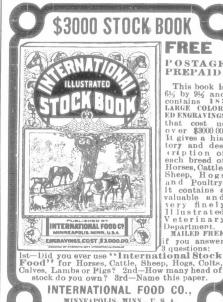
ders because it is a notorious fact that many catarrh

powders contain cocaine.

The new Catarrh Cure is called Stuart's Catarrh
Tablets, a wholescme combination of bloodroct,
beechwood tar, guaiacol, and other antiseptics, and
cures by its action upon the blood and mucous membrane, the only rational treatment for catarrhal trouble.

trouble. You do not have to draw upon your imagination to discover whether you are getting benefit from Stuart's Catarrh Tablets; improvements and relief are apparent from the first tablet taken.

All druggists sell and recommend them. They cost but 50 cents for full-sized packages, and any catarrh sufferer who has wasted time and money on sprays, salves and powders will appreciate to the full the merit of Stuart's Catarrh Tablets.—Advt.



that cost us over \$3000.00 It gives a history and description of each breed of Horses, Oattle, Sheep, Hogs and Poultry. It contains a Department.
MAILED FREE
if you answer

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

Fairfield Lincolns.

The partnership heretofore existing between J. H. Patrick and Eugene Patrick, of Ilderton, Ontario, as to the management of Fairfield Stock Farm, has been dissolved. J. H. Patrick again resumes full management at Fairfield, and Eugene Patrick taking charge at Lincoln Grove, Tecura, Idaho.

J. H. & E. PATRICK, Ilderton, Ont.

BROAD LEA OXFORDS. We have at present a number of good ewe and ram lambs. Also some choice young ewes dropping lambs in April for sale. Correspondence solicited. Visitors

Henry Arkell & Son, 'Phone and telegraph, Teeswater.



Including 12 shearling rams, 2 two-shear rams, and this year's crop of lambs. Will be ready for the fall trade, Lambs and shearlings are sired by the noted stock ram, Miller's 3402,111875, bred by John Miller & Sons, and used with good results on the flock of C. Foundation stock were imported from Mansell's, Shrewsbury, England, Fine quality, good fleece, well-covered heads and legs, and skins right. Write for prices, ROWAT BROS., Box 132, Hillsdale, SimcoeCo.; Phelpston Station, om SHROPSHIRES FOR SALE _ 50

Shropshires...

Ram and ewe lambs, sired by an Imp. Williams

GEORGE HINDMARSH, AILSA CRAIG, ONT.

Fairview Shropshires

A choice lot of Rams for sale. Sons of winning sires and dams. They are of good size, and best of quality. Just the kind needed to head fine flocks.

John Campbell, Woodville, Ont.

W. H. BEATTIE, Wilton Grove, Ontario,

IMPORTER AND BREEDER OF Shropshire sheep, collie dogs, White Holland and Mammoth Bronze turkeys, and Barred Rocks.

GOSSIP.

Geo, Crawford, Simcoe Co., Ont.: - "We have taken the FARMER'S ADVOCATE for many years, and have been greatly benefited there by in many ways.

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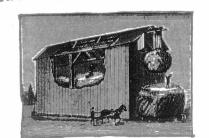
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BUCHANAN'S (Malleable Improved)

PITCHING MACHINE For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without changing car. No climbing necessary. Malleable iron Cars. Steel Forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction currented. faction guaranteed.



The Common-Sense Sheaf - Lifter

Works in connection with Pitching Machine, and works in complete apparatus ever offered to the public for pitching sheaves. Sheaves left in the mow just as they come from the load.

RESPONSIBLE AGENTS WANTED

Circulars, Prices and Terms on application to M. T. BUCHANAN & CO., Ingersoll, Can.

ROYAL MAIL STEAMERS.

| Regular Wee | kly Service bety | veen Montreal |
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| and Liverpool. | | From |
| From | | Montreal. |
| Liverpool, Tuesday. | Steamer. | Friday. |
| Mar. 91 | . Lake Champlain | June 7 |
| War 00 | Lake Megantic. | J UIIO IT |
| T | *Laka Siinerior | UIIIO MI |
| June 11 | Lake Simcoe | June 20 |

Lake Ontario July 5
Lake Champlain July 12 June 25...... Lake Champlain.......July 12
First Cabin — Single, \$52.50 and upwards;
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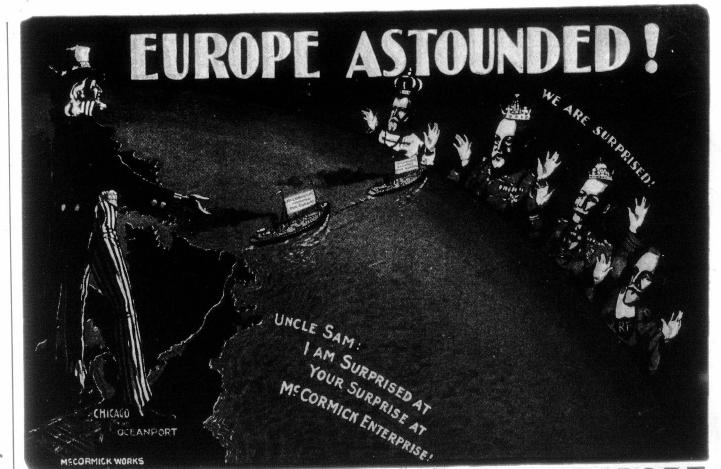
Windsor Model (imp.) and Royal Star (imp.) at the head of our herd. Choice young boars and sows, sired by above boars. B. P. Rock eggs, \$2 per set. H. BENNETT & SON, St. Williams, Ont.

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FOR SALE: A fine lot of young pigs from April litters, and one good, lengthy, 11-months-old boar. Prices reasonable. JOHN RACEY, Jr., Lennoxville. Que.

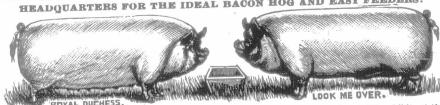
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First-prize boar, six
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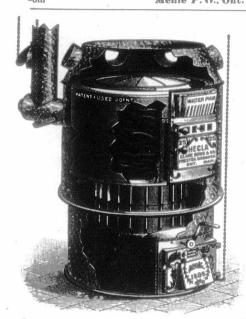
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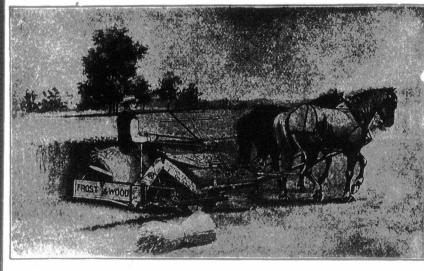
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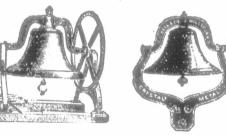
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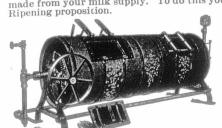
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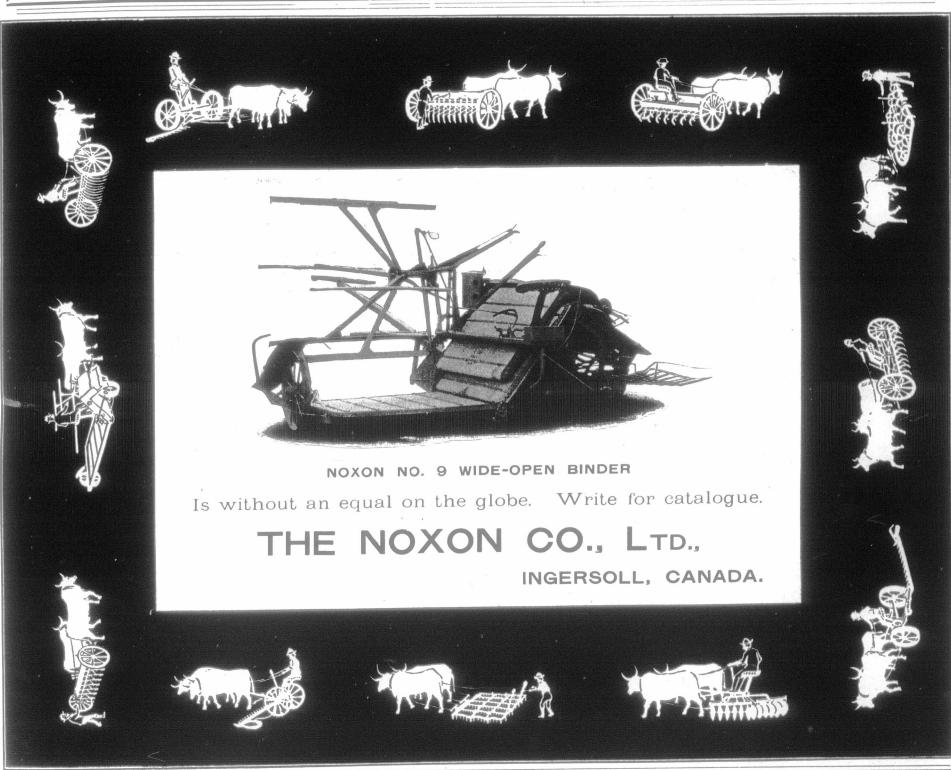
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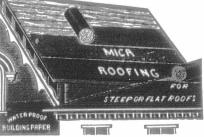
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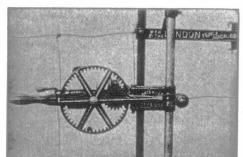
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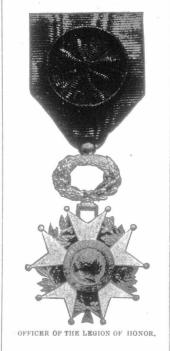
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