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# FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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## EDITORIAL.

### The Cheese Branding Bill.

The bill passed at the recent session of the Dominion Parliament requiring the word "Canada" or "Canadian" in letters not less than  $\frac{3}{4}$  of an inch high and  $\frac{1}{4}$  of an inch wide to be stamped upon every box or package containing cheese or butter destined for export, and in case of cheese upon the cheese itself before being taken from the factory where made, is now law, having received the assent of the Governor-General on June 29th, and, we are assured by telegram from the Department of Agriculture, Ottawa, went into force from that date. Factorymen and creamerymen should govern themselves accordingly, as the penalty for violation amounts to a fine not exceeding \$25 or less than \$5, with costs, and in default imprisonment with or without hard labor for a term not exceeding three months.

### Dr. Gardiner's Letter.

Dr. J. H. Gardiner, lecturer on Sanitary Science in the Medical College of the Western University, London, Ont., addresses a letter to our readers, in another column, dealing with the amount of air space requisite for stock in stables. This subject naturally comes to the front in dealing with tuberculosis in cattle; but we are not prepared to assume, so far as Canada is concerned at all events, that this disease is on the increase, but rather the reverse, and with more rational treatment of live stock we may expect this and other troubles to become less serious, as has been the case with many ailments affecting the human family. In taking up the cudgels against overcrowding and bad ventilation, we say more power to the Doctor's elbow, for he thereby strikes at one of the chief contributory causes of the trouble. This is being gradually recognized and better provision made for a constant supply of fresh air in stables, to which the Doctor very pertinently adds fresh whitewash spring and fall. With an effective system of ventilation, whereby the air of the stable is kept pure, the question of mere cubic space is less important, however, than under the reverse condition of things. We take it as a hopeful sign when medical men of good standing are found preaching the good old doctrine that prevention is better than cure.

### Live Stock Exhibition Catalogues.

The importance of a complete and reliable official catalogue of the live stock entries at the leading shows in the Dominion is not, to our mind, as fully appreciated as it should be. The manager of the Toronto Industrial Exhibition has made a very commendable effort to introduce this feature, and we are free to acknowledge that it is not his fault if it has not been the complete success which we believe it possible to make it. The co-operation of exhibitors in this matter is essential to its success, and we fail to understand why so much indifference has been manifested in regard to the subject. The work of compiling and printing the catalogue is done free of expense to exhibitors, and it is surprising that they do not recognize and avail themselves of its advantages. We believe that in the management of the leading shows in England, and at many county shows as well, it is required that the necessary information for the preparation of a catalogue must be furnished before the entry is fully accepted, and if the observance of such a rule were insisted upon here we see no good reason why it might not be enforced. In all the classes of registered horses and cattle at least the catalogue should show the name and post office address of the exhibitor of each entry, the name and record number of the animal, the date of birth, and the name and record number of the sire and dam. A plainly printed card giving the number of the entry in the catalogue should be displayed in the

stall of the animal while in the stall, and on the animal or its attendant when in the showing or on parade. The information need not be so complete in the classes of harness and saddle horses, or in classes for which there is no registry, but the ownership and age should at least be given, and the number corresponding to the catalogue displayed as in the other classes; and this applies in the case of sheep and pigs as well, though we see no reason why the fuller information may not be given, since they are required to be registered in order to compete. The convenience to visitors of a well-prepared and reliable catalogue is very great, while to reporters it is almost essential, if they would give a satisfactory review of the stock. The stock breeders' associations have it in their power to do good work in carrying out this enterprise, if they would impress upon fair managers the importance of the subject, and place their secretaries at the disposal of the fair associations to the extent of revising the entries, and furnishing the necessary information where records are kept, as is done by Mr. Hy. Wade for the Toronto Industrial Exhibition in the classes for which he is the secretary and registrar, and which are the only classes in the catalogue for that show which really fill the bill in this respect. We shall look to Mr. Hill, the energetic and wide-awake manager of the Toronto Exhibition, to take action in this matter, and would suggest that in order that this year's catalogue may be more complete than ever, that in every case where the necessary information does not accompany the application for entry the papers be returned for completion before being accepted. This is clearly in the interest of the public, of the exhibition itself, and of all honest exhibitors, for we regret to learn that it has been hinted that in some classes and by some exhibitors the neglect or refusal to comply with the requirements in this regard is due to a disposition to substitute exhibits which may not correspond with the catalogue, and thus to practice what is unfair to honest competitors and not in accordance with the high sense of honor which should characterize these competitive examinations.

### Patronize the Fairs.

We bespeak for the agricultural and industrial exhibitions to be held in the next three months the hearty support of the people generally. Those who are engaged in the work of conducting these institutions are nearly all freely and generously giving their time and work and thought for the public good, and the very least the people can do consistently in acknowledgment of their services is to show their appreciation of the work done by attending the exhibitions. We presume there are no two opinions in regard to the usefulness of these competitive exhibitions of the products of the skill of our people in agriculture and the arts and sciences, and they may, if rightly heeded, impart lessons which we do well to learn. They mark the progress that is being made, and assist us to properly keep abreast of the times. The people of the cities and towns in which the fairs are held owe it to the directors of the shows to stand by them and give them all reasonable encouragement and assistance. The crowds of people brought to the cities spend sufficient money to make it well worth all it costs the cities to do their part towards upholding the fairs. By advertising the fair they advertise their city and attract business to it. Wealthy men can well afford to contribute liberally towards the prize lists to increase the interest. By so doing they not only promote the general weal, but their own business enterprises. It is only casting their bread upon the waters to be seen again in the near future.

Farmers and stockmen are especially interested in the great object lessons provided at the shows. Here they find the standard of excellence fixed,

and here they may receive inspiration to endeavor to excel in their own line of business, and the success which has attended the efforts of many who began in a humble way, and have worked their way to the front rank in the breeding and raising of improved stock or farm products, should serve as an incentive to others to go and do likewise. We have more than once remarked in these columns that we would be glad to see a larger number of exhibitors in the various classes at our shows; not necessarily a larger number of exhibits, for we think that in many classes the effect of the show is marred by the practice of exhibitors bringing nearly their whole herd—good, bad and indifferent—so as to be prepared to fill a vacancy and secure the prize money in cases where the class may not be filled, but we are persuaded that there are in not a few herds and flocks single animals of first-class merit which would rank close up to the best, which are kept at home simply for the reason that having only one that is likely to be a winner the owner concludes it will not pay to take one to the show since the prize money, if he were successful in winning, might not be sufficient to cover expenses. Visitors to the English shows will have noticed the difference in this respect. There breeders are not so anxious to make a big show as to present a select and uniform lot, and deem it an honor to get into the prize list if only for a third place, knowing that they are in select company, and the name of being a prize-winner in such contests is an advertisement for their stock far exceeding the money value of the prize. We hope to see more of our stock breeders, and especially the younger men, bring out their one or two best animals well fitted to enter the showing, and add to the interest of the competition. We believe we are correct in saying that in no country in the world is greater encouragement given to beginners in the showing than in Canada. The classification of stock is varied and full. The number of sections in a class and the number of prizes in a section are greater than in the shows of any country within our knowledge. This arrangement gives a greater number of chances to get within the charmed circle, and should be eminently satisfactory to all concerned.

To the rank and file of the intelligent and wide-awake farmers of the Dominion we need hardly say that a visit to at least one of the leading shows in their own Province, and to their own local fair, will probably be the means of their learning some lessons that will well repay the cost of the trip, which, with the excursion rates given by the railways, is not great, and the well-earned holiday will do much towards refreshing them after the toils of the harvest season.

### Quelph Agricultural College Closing.

The closing exercises of the Ontario Agricultural College were held in the gymnasium of that institution on June 30th. Principal Dr. Mills presided, and had on the platform with him Hon. John Dryden, Rev. Dr. Potts, John Mutrie, M. P. P., Jas. Innis, ex-M. P., Rev. J. M. Glassford, Rev. J. G. Scott, and others. Addresses were delivered by the Minister of Agriculture and Rev. Dr. Potts. Among other things, Mr. Dryden made the following remarks in defence of the Agricultural College and its management:

"In 1896 the actual cost of the College was \$58,374. This \$58,000, too, included the travelling dairy, costing \$2,000; the special dairy school, costing \$2,100; the experimental work in connection with the dairy department, costing \$2,000; the experimental plots, costing \$6,000; the maintenance of the beautiful lawn in front of the building. Altogether \$11,700 should thus be deducted as not being spent for the College, but for the country generally, leaving the net cost of the educational work of the institution \$43,614. The constant aim kept in view in conducting the institution was efficiency. The great fundamental industry of agriculture demanded the expenditure of a portion of our Provincial money in order that it might be developed. The Opposition said that the farm was not being made to pay, but Mr. Dryden pointed

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THE DOMINION.

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out that the farm is here only as an adjunct to the College, and is intended to give a practical side to the education. He said that if he wanted to make dollars and cents out of the farm he would engage a less expensive man than Mr. Rennie as superintendent, would refuse to keep extra horses to carry on the work of the experimental plots and the College proper, would refuse to keep twenty-five different kinds of live stock, to supply feed for forty cows in the dairy department, to keep a number of milch cows for the use of the students, and in other ways reduce the expense, which was now charged to the farm proper. The farm was not there for money-making, but to give farmers' sons a sound education in all that pertained to agriculture."

The Minister concluded his address with an appeal to the students to be faithful in the discharge of whatever duties fell to their lot.

Graduate degree of B. S. A.—L. H. Cass, L'Orignal; W. P. Gamble, Cumberland; P. C. Hodgetts, St. Catharines; J. C. Macdonald, Lucknow; J. R. Oastler, Featherston; F. A. Parker, Bowmanville; C. H. Rogers, Grafton.

Twenty-four second-year students received associate diplomas. The gold medal was won by George Bruce McCalla, St. Catharines. First silver medal—H. R. Ross, Gilead. Second silver medal—E. Beam, Black Creek. Mr. Roland Craig, Guelph, first in competition for gold medal, but was ruled out by special regulation.

The following men won \$20 Cox scholarships: First year—W. J. Kennedy, Vernon; W. J. Price, Marsville; C. D. Jarvis, O. A. C.; M. Raynor, Rose Hill; J. B. Anderson, St. Mary's; and F. R. Marshall, Westbrook. Second year—G. B. McCalla, St. Catharines; W. G. B. Heartz, Halifax; H. R. Ross, Gilead; and R. D. Craig, O. A. C., Guelph.

### A Simple Cure for Lump Jaw.

To the Editor FARMER'S ADVOCATE:

SIR,—In your issue for July 1st, J. M., Grey Co., asks if there is a cure for lumpy jaw in cattle. I reply, Yes: Spirits of ammonia. I have used it for years, and cured every case, no matter how bad. Just rub a little on lump, or lumps, as sometimes there are several. They will disappear gradually in a short time. Sometimes, if very bad, I foment with pretty warm water, but not hot enough to scald. The ammonia has then more chance to penetrate, but I seldom do anything but rub a little on with my fingers out of a ten cent bottle I keep in the stable for the purpose. I have received a great deal of benefit by reading this most useful medium, the FARMER'S ADVOCATE.

Grey Co., Ont.

WM. METCALF.

Mr. J. McLain Smith, known to many readers as secretary since 1889 of the Red Polled Cattle Club, has been appointed by the Governor of Ohio a trustee of the State University at Columbus.

## STOCK.

### The Royal Show at Manchester.

The fifty-eighth exhibition of the Royal Agricultural Society of England was held at Manchester on June 23rd to 29th, under the presidency of H. R. H. the Duke of York, who was himself an exhibitor and prizetaker. The Queen and the Prince of Wales also figure in the list. The show was the largest since 1889 at Windsor, when the live stock entries ran up to 3,976. This year the total entries numbered 2,688, as against 1,883 last year at Leicester, and 1,703 in 1895 at Darlington. On Saturday we notice the paid admissions numbered 73,119, the smallest paid attendance on any one day being 21,475, not a bad showing for a purely agricultural show. The practical side of the show included a competition of buttermakers, demonstrations of crumming, plucking and trussing poultry for the table, and demonstrations of drying and evaporating fruits and vegetables. There were also lectures on agriculture and horseshoeing. The grand stand, which is capable of holding 6,000 visitors, was furnished with a bridge so that the people could get from one side of the ring to the other without causing any confusion or delay in leading the horses from the collecting ring into the larger ring in which they exhibited their points and paces.

Besides the classes of stock dealt with by "Scotland Yet," in this issue, a word or two regarding the Hackneys, sheep, and swine may be of interest. Of Hackneys there was a good display. The championship for best stallion was awarded to Sir Walter Gilbey's Royal Danegelt, and the reserve to Thos. Birmingham's Prince Edward, that stood 2nd in his class. The champion mare was Mr. Austin C. Carr's Graceful, by Golden Star, and the reserve C. E. Galbraith's Trilby. In the mature stallion class, following Royal Danegelt and Prince Edward, came Mr. Lee Knowles' (M. P.) Dane Canute, another son of Danegelt, and the next was Slasher II., a son of Ganymede. In females, Mr. Carr's Graceful (the champion mare) was followed by Sir Walter Gilbey's Caprice, while Mr. Carr's Ada Rufus stood 3rd. The younger classes, like the foregoing, were well contested, but the decisions of the judges have been severely criticised.

**Sheep.**—The total number of entries in the sheep classes was 649, as compared with 551 last year, and has only been exceeded twice in the history of the Society, namely, at Kilburn and at Windsor. The quality of the animals is said to have been of a high order of merit. We give below the first and second prize winners in the leading sections of a number of the breeds: **Leicesters.**—Two-shear ram—1 G. Harrison, 2 T. Hutchinson. Shearling ewes—1 and 2 G. Harrison, 3 E. F. Jordan. **Border Leicesters.**—Two-shear ram—1 T. Winters, 2 A. J. Balfour (M. P.). Shearling ram—1 J. Twentyman, 2 A. J. Balfour. Shearling ewes—1 R. Taylor, 2 Geo. Laing. **Cotswolds.**—Two-shear ram—1 and 2 R. Garne. Shearling ram—1 T. R. Hulbert, 2 R. Garne. Shearling ewes—1 and 2 R. Garne, 3 Hulbert. **Lincolns.**—Two-shear ram—1 S. E. Dean & Sons (bred by Dudding), 2 and 3 H. Dudding. Shearling ram—1 R. Wright, 2 H. Smith, 3 H. Dudding. Five shearling rams—1 R. Wright, 2 H. Dudding, 3 J. Pears. Shearling ewes—1 R. Wright, 2 W. Hesselstine, 3 H. Dudding. **Shropshires.**—Two-shear ram—1 Mrs. Barrs, 2 J. Harding. Shearling ram—1 A. E. Mansell, 2 T. F. Cheatle, 3 I. L. Naper. Five shearling rams—1 J. Bowen-Jones, 2 A. E. Mansell. Ram lambs—1 Harding, 2 Mansell, 3 Mills. Shearling ewes—1 Mrs. M. Barnes, 2 I. L. Naper, 3 Bowen-Jones. **Southdowns.**—Aged ram—1 Lord Ellesmere, 2 Sir James Blythe, 3 Lord Cadogan. Shearling ram—1 H. R. H. Prince of Wales, 2 Sir James Blythe, 3 Pagham Harbor Co. Ram lambs—1 E. Matthews, 2 Lord Cadogan, 3 Prince of Wales. Shearling ewes—1 Lord Cadogan, 2 J. J. Colman, 3 Duke of Richmond. **Oxfords.**—Aged ram—1 J. Treadwell, 2 J. C. Eady. Shearling ram—1 A. Brassey (M. P.), 2 J. Treadwell. Ram lambs—1 A. Brassey, 2 J. T. Green, 3 A. J. Balfour (M. P.). Shearling ewes—1 J. C. Eady, 2 A. Brassey, 3 A. J. Balfour.

**Pigs** were a good class, notwithstanding the restrictions in force in many parts of the country because of swine fever. Large White Yorkshires were numerous, Sir Gilbert Greenall capturing 1st and medal on old boar, a long, well-fleshed hog, but lacking a little in width of ham and spring of rib. Sanders Spencer's boar was 2nd. D. R. Daybell had a good pen of young boars. Large White sows constituted the best class. Berkshires were splendidly represented, and the quality good as a rule, Messrs. J. P. King, A. Ashworth and J. Jefferson taking the chief prizes. Earl Carnarvon secured a great success with a grand sow bred by Edney Hayter, capturing the Berkshire Society's prize and the prize for best Berkshire at the show. Tamworths were fairly good, Mr. J. Norman taking the gold medal.

**Milking Tests.**—In the milking tests, prizes were offered for the best dairy cow in milk, of any weight, breed, or cross, giving the largest quantity of milk containing 12 per cent. of total solids, of which not less than 3 per cent. was fat. The premier award was taken by Mr. Michael Raine, of Dallington, with a Shorthorn named Polly, aged 5, whose total yield of milk is 61 lbs., the percentage of fat on Wednesday evening being 5 and on Thursday morning 2.7. Mr. Albert Stacey, of

Leighton Buzzard, has the second and third places for his Shorthorns, the total yield of the second winner being 60 lbs. The reserve number is taken by Mr. Robert Shepherd, another Durham exhibitor. The test for the greatest weight of butter-fat results in wins for the Jersey breed of dairy cow, Dr. Watney, of Pangbourne, obtaining first and third, and Mr. Edward Carter, of the Isle of Wight, second place. The total weights are 34½ lbs., 34½ lbs., and 32½ lbs., respectively.

### Our Scottish Letter.

THE ROYAL SHOW.

This week the British Empire has been celebrating the Jubilee, and the people the round world over have been enjoying "a good time." It is useless to occupy space here describing all the ongoings of these days, especially as the Royal Show was opened in Manchester on Wednesday, June 23rd, and the Western farmer will be anxious to know what the stock there is like. The site of the show might have been better, but in a matter of this kind there is not much choice in finding accommodation for a big outdoor event. The site was Trafford Park, between the new ship canal and the old Bridgewater canal. Its principal defect is its length and narrowness. The yard is shaped like a leg of mutton—very narrow at the entrance and suddenly widening out at the other extremity, but too late to allow of much laying-off in the ground. The show is a very large one in respect of numbers and nothing better has been seen since the Jubilee event at Windsor in 1889. Its outstanding features are the displays of Shorthorn cattle and Shropshire sheep. These surpass anything we have seen at a show for many years, and the exhibition of Clydesdale horses and Aberdeen-Angus, Hereford, and Galloway cattle is altogether creditable. The most significant event in the Clydesdale world is the fact that two of the first prize winners were bred in America by Colonel Holloway, Alexis, III., and got by Cedrie 1087. This is a notable event, and the champion Jewel Prince is a singularly pleasing and very attractive two-year-old bay horse.

Shorthorns have seldom been better represented, and it was interesting as well as instructive to follow the judging. There is still a hankering after Booth cattle with some men, and the Warlaby inspiration could be traced in some of the awards. Bates pure and unalloyed one could hardly see, but Bates in combination with the modern type was not hard to find. The champion of the breed was a two-year-old heifer named Sea Gem, owned by her breeder, Captain Duncombe, of Waresley Park, and got by Liberator, out of Sea Pearl by Commander. This is a sweet roan heifer, not particularly active on her legs, but full of breed character, marvellously level and well-fleshed, and we should judge, a good handler. The reserve champion, Mr. C. W. Brierley's lovely cow-in-milk, Jewel II., of the Rosedale tribe. This is a fine cow, red and white in color, which is possibly a drawback, but evenly-fleshed and a beautiful walker, in which latter detail she altogether eclipses the champion. Another exceptionally good female was the first prize yearling Ringdale Bella II., by Patriot: a white heifer which handles to perfection, and a popular winner. She is owned by Mr. Joseph Thorley, of cattle spice fame, and is a capital advertisement of his calf meal. A detailed account of the other animals in this section would not be of entrancing interest to the reader. The bulls found their champion also in the two-year-old class. This was Mr. Heaton's Master Recorder, bred by Messrs. Henderson, Hesham, and but for a defective or somewhat Ayrshire-like horn, an outstanding animal altogether. He has a wonderfully true body, being level and fully covered, but just perhaps short enough. His sire, Recorder, unless our memory fails us, was somewhat of a Bates bull, and his dam is a true-blue Aberdeenshire Shorthorn, one of the Marigolds from Uppermill. This bull is open to criticism for the shape of his horn, but when that is discounted he remains a grandly-fleshed, level block. A bull of quite different character followed in the class, namely, Mr. Philo L. Mills' Marengo, the highest-priced calf at Mr. Duthie's sale in 1895, and got by the celebrated sire, Scottish Archer. Marengo is of greater length than the winner: a beautiful dark roan, wealthy in flesh, but possibly a little loose and weak in his thighs. This is rather a weak point in the produce of Mr. Duthie's great breeding bull, but their other merits are so outstanding that breeders find it hard to refuse them the first place in their affections. Outside of Aberdeenshire the most extensive herd of Cruickshank cattle is Mr. J. Deane Willis', at Bapton Manor, in Wiltshire. Not many breeders excel Mr. Willis, who has a fine trade for his cattle. He is to have a sale on 23rd July, when high prices will likely rule. The first aged bull, Master Ailesbury, owned by Mr. Atkinson was bought at Mr. Willis' last sale—well worth his money. He is a lengthy, fleshy, level bull, showing great quality. Several Booth bulls got mixed up with the others in the prize list, and it was rather amusing to hear the faint praise with which the Northern contingent were disposed to damn them. Their merits in front are very marked, but sometimes they display a want of solidity behind. The Aberdeenshire Shorthorn is a wonderfully level, compact, evenly-fleshed gentleman, but a little more style would help him. Hence the success which has attended several of the animals got by crossing Bates cows with a

Cruickshank bull. You just get the style you want without sacrificing the great block of beef which must ever be the chief characteristic of a Shorthorn of any merit. "SCOTLAND YET."

The Royal Herds at Windsor.

In a review of the studs, herds, and flocks of the British Isles the London Live Stock Journal refers at length to the herds of different breeds of cattle to be found at the Queen's farm at Windsor and the records made by representative animals from these herds at leading shows in the Old Country in the last ten years, and gives the following summary of prizes won within that time: 119 firsts, 73 seconds, 21 thirds, 56 specials and cups, including best Shorthorn in Birmingham and London 11 times, best Hereford in Birmingham and London 6 times, best Devon in Birmingham and London 7 times, best male at the "Royal" shows once and once reserve, best female at the "Royal" shows twice and once reserve.

The above record cannot fail to indicate in a most convincing way the extraordinary success which has attended the exhibition of animals from the Royal herds. Seeing that only the more important shows were patronized the prize records are all the more striking; and naturally the question arises, What are the parent stocks which have produced those splendid specimens successfully alike at the breeding and fat stock shows?

If, therefore, while giving up the idea of speaking of the merits of the individual animals composing the herds, we confine our remarks to a great extent to the sires that have been used in the herds in the interval between the two Jubilees, a fairly accurate opinion may be formed of the breeding pursued on the Windsor farms. Naturally, the Shorthorn herd first claims our attention, and for two important reasons. Taken one year with another, the Shorthorns number about as many head as the Herefords and Devons put together, and, much as these two latter breeds have been in evidence at the fat shows, very few males have been sold from Windsor as sires to exercise an influence on the cattle in other herds.

In the full account of the Windsor herds above referred to as written for the Live Stock Journal in 1886, the year before the Jubilee, we find mention of two sires, Royal Leopold 53600 and Gracchus 54386. These two bulls—both prize-winners—if not pure Booths, had been bred in herds in which Booth blood had been largely used. As, however, we find no trace of them in the later catalogues of the Windsor herd they do not claim further attention.

In the autumn of 1886 a new departure was made, and the Cruickshank bull Field Marshal 47870 was obtained. Here, however, it may be stated that three North of Scotland heifers had been bought in the spring of 1886 and are spoken of in the article already quoted as "a lesson in breeding and feeding, and a good deal besides." It is evident the lesson was taken to heart, and the result was the transference of Field Marshal from Collynie to Windsor; and there can be no question regarding the amount of good this animal exercised in the herd. At the time the bull was brought south comparatively little was known by English breeders of the Sittyton herd from whence he sprang. Breeders south of the Tweed had become accustomed to think we had two, and only two, great families of Shorthorns—the Booth and the Bates—and, while for years prior to this date the most of the sires bred at Sittyton were being taken in bulk to Canada and the United States, where their value was known, Field Marshal may be said to have been the first Cruickshank animal to open the minds of English breeders to the fact that there was a third strain of blood in the kingdom claiming to be possessed of prepotency and power in a remarkable degree. Much has been said and written regarding the Sittyton cattle since Field Marshal first crossed the Tweed, and Shorthorn breeders generally have come to acknowledge the intrinsic value of Cruickshank Shorthorns. While perhaps they may lack in some respects the style and character we were so much accustomed to in the Booth and Bates herds, no one can deny that they are strong in constitution and possessed of that important qualification which has been described as thrift.

It is interesting to look back upon the doings in the Windsor Shorthorn herd during the Jubilee year. Brought from the far north-east of Scotland, Field Marshal was mated with cows of Booth blood, mixed blood, and three females bred in the extreme south-west of England, to produce stock to become champion prize-winners at our great national shows. Amongst the females referred to were Ruth 201st, Ruth 205th, and Ruth 210th, bred in a large herd of Shorthorns in Cornwall, the descendants of one foundation cow. At the same time as Field Marshal stood at Windsor, a bull of mixed breeding, but of extraordinary individual excellence, was used and shown. Those who attended the Windsor meeting of the Royal Agricultural Society will remember this animal winning easily in a strong class of yearling bulls. As the property of Her Majesty, this bull, New Year's Gift 57796, was shown six times, and won six first prizes and four championships. He was sold at the Windsor sale in 1882 for 1,000 gs., and since then has been champion at the "Royal," the Yorkshire, and the Highland shows. At Windsor he was freely used for two seasons, and at the same time several home-bred sons of Field Marshal were also in service. One at least of those home-bred sires did

good service, and to-day a large number of the young stock in the herd bear evidence of his value as a sire. We refer to Fairfax 60792, a Windsor-bred bull, a first-prize winner at the "Royal," where he was also reserve number for the male championship. Volunteer 63501 and Gael 60855, two pure Cruickshank bulls, were then used. Both afterwards found a home at Sandringham. It is interesting to note that Volunteer was the sire of a Windsor-bred heifer that won in prizes in 1895 a grand total of £770 in money and plate; while Gael at Sandringham was the sire of a bull that, after winning as a two-year-old at the "Royal" in 1896, was sold to go to South America for 1,000 gs.

As a sire to follow Volunteer and Gael, Count Lavender 60545 was hired from Mr. J. Deane Willis, and at the same time Nobleman 65908, a home-bred straight Cruickshank bull, was also used. At the present time the two stock bulls are Christmas Gift 66837 and Prince Victor, a yearling bull bred by Mr. J. Deane Willis from an Uppermill Princess Royal cow and by the famous prize-winning bull, Count Victor 66877.

From what has been said it will be gathered that the Scotch element is in strong evidence in the herd, seeing that there has been a continued use of pure Cruickshank sires. While this is so, there has been no blind following of what may be termed the "fashion" for Scotch blood. None but sires of high individual merit have been used, and, as has been seen, Fairfax 60792, got by Field Marshal from a cow bought at Sandringham, of Booth-on-Gamble breeding, coming after the Sittyton sires, reinforced a strong dash of English blood into a large number of the younger females. Reference has been made to the Ruths from Cornwall, a family that will be a lasting credit to the genius of the late William Trethewy, whose herd had on more than one occasion been drawn upon for females. Mention must also be made of females from the late Robert Thompson's herd at Inglewood. These have been mated with Sittyton and home-bred bulls, and the young heifers from them have all the thickness of the Sittyton sorts, with the hair, quarters, and character of Inglewood cattle in their best days.

There is no lack of beautiful, strong-constituted youngsters in the herd; and, looking at the two-year-old heifers, the yearling heifers, and the calves, one cannot fail being strongly impressed with the belief that the Shorthorn herd is attaining year by year a higher and more uniform type.

Preparing Show Cattle.

Grooming is as necessary with show cattle as with horses, if they are to be shown in perfection and to best advantage. A couple of months' grooming will bring them up to fine form, provided they have been well fed and kept in clean quarters. We want as far as possible new coats shining like those of spring. A good means of getting the old hair to shed is to provide a blanket for each animal and have it worn 12 to 14 hours a day. A good washing with carbolic soap and tepid water should be given at the commencement of blanketing to remove the dandruff from the hide. Once a month afterwards will be often enough to wash if the bedding is well looked after. A rough-coated beast or one having more than an ordinary amount of dandruff may require an extra washing and a heavier blanket, with a little oil rubbed in, which will usually give the desired gloss. It requires rubbing and brushing, brushing and rubbing, day after day, and considerable elbow grease, to put on the shine.

"A corn brush, a soft brush and a chamois skin are the tools required for putting on the polish," says the Agricultural Gazette. The skin becomes soft under this treatment, and a curry comb should seldom be used. In rubbing down with the cloth it must be done quickly. The friction raises a certain amount of heat, which is the main agent in putting on the shine. Nothing equals the bare hand for putting on the fine touches. It is not easy to say when grooming is perfect, but when the skin will no longer soil a white kid glove with either dust or hair, there is not much to complain of. This condition is not, however, reached without many days of careful sheeting and rubbing. Some fancy they can with one washing and a few groomings do all that can be done, but there is a great difference between the hastily-prepared skin and one that has had weeks of labor, and the fine touch which skillful and persistent grooming gives may turn the scale, even with an expert judge, where the competition is very close.

The Truth About Hogs.

"A great deal of nonsense has been circulated with regard to hogs and their feed. It has been reiterated that the present high quality of our pig products is due to the fact that the hogs are fed with peas instead of corn. But the FARMER'S ADVOCATE, whose editor is a practical farmer, informs us that Canadian bacon owes its prestige to a variety of causes. To-day, indeed, peas are less the diet of the Canadian hog than they were twenty years ago, when the standing of Canadian bacon was not nearly so high as it is now, and our hog raisers enjoyed no such advantage in point of price as they at present command. In the interval, the Ontario Government, with the approval of an intelligent legislature, and of the people generally, has encouraged the cheesemaking industry, which has proved the best paying of all branches in the farmer's business, and on whey, a by-prod-

uct of the business, with various coarse grains, the hog raiser has depended for food for his animals. Then it must not be forgotten that great improvements have taken place in the breeding of pigs, and these have also contributed to the elevation of the standard attained. The intelligent farmer knows all this, but the amateur agriculturist, who writes for political effect, is more interested in trying to make his farmer readers dissatisfied with the new and better condition in which he is now placed than in telling the truth about Canada's great hog industry."—London, Ont., Advertiser.

FARM.

Cultivating Corn and Root Crops.

The importance of keeping the soil frequently stirred in the cultivation of root crops can hardly be overestimated. Even in times of extreme drouth it is of the utmost importance, and should be repeated at least once a week—twice would be better and will be found to pay. Especially just after a rain, as soon as the surface is dry enough to work without sticking, the horse hoe should be started in order to arrest evaporation and thus conserve or retain moisture. The force of capillary attraction is of wonderful value to the farmer, and he needs to fully understand it in order to make it his servant. Dip the lower end of a sponge in water and it becomes wet all through. Dry earth set in water at the bottom will slowly moisten up. The water rises through what are called capillary tubes. This is a fine provision of nature that makes water able to and forced to rise above its source among the particles of soil. The stirring of the surface soil forms a mulch which retains the moisture brought up by the capillary tubes by breaking these tubes so that the moisture does not reach the surface and become wasted by evaporation, but is diffused among the roots of the plants. It is a curious fact, but science tells us what any observant farmer can readily believe, that soon after a rain a cultivated field will actually become drier than it was before if the surface of the soil be not stirred. So it is manifest that no time should be lost after a shower in making an earth mulch as quickly as the condition of the land will admit of working it if we would get the full benefit of the rain. A single day's delay may mean a considerable loss in the crop, or it may not. It depends on the weather following. If rains come frequently, this extra cultivation may not be necessary, but it is best to be on the safe side and to cultivate after each rain, unless appearances indicate another very soon. If it does not rain within a week after cultivating, the operation should be repeated every few days, not only to keep weeds down but to break up the capillarity, as the surface will soon settle together again and will not serve so well the purpose of a mulch. It may seem to be asking a good deal to require, when this work has been done to-day and a shower of rain comes, that it be done over again perhaps to-morrow, but it must be done if the best results are to be obtained. Merely to work a crop so many times in a season will not fill the bill, at least in lands chiefly of clay. The up-to-date farmer will feel that he cannot afford to fix a day beforehand to go fishing or to a picnic during the tillage season. It may be just the day, if a shower has intervened, when he ought to be making an earth mulch in his corn or root field, and a delay of a day or two might mean the loss of many dollars in the crop. The doing of the right thing at the right time, and never leaving off till to-morrow what ought to be done to-day, are problems which the farmer is especially interested in and which he cannot afford to overlook or to treat with indifference.

Farm Machinery—Shelter, Care, and Loss Resulting from Neglect.

To the Editor FARMER'S ADVOCATE:

SIR,—All will agree that farm machinery should be sheltered and otherwise cared for when not in actual use. And as we find comparatively few farmers provided with an implement house, we therefore suggest building one.

In the first place select a site convenient to the lanes leading to the various fields and at a proper distance from the other buildings to ensure safety in case of fire. We think 20 x 40 feet a convenient size on an average farm. Divide into three spaces, two of 13 feet each and one of 14 feet; enclose these spaces on one side with doors, either roller or swinging. As for lumber, common will do, using good shingles for roofing and pine lumber for doors. Make good joints to prevent the entrance of fowls and sparrows, which are extremely fond of roosting on the implements, much to the discredit of the owner. The floor should be twelve inches above the ground, and the approaches to the doors filled evenly with earth or gravel. The farmer and two or three neighbors, one of whom should be a framer, can build and complete it in four days.

The shed being completed, store in the implements as follows: The binder in the fourteen foot space and by it the rest of the harvesting implements, next the balance of the implements, and lastly the vehicles. Leave a passage of ten feet between harvesting and tillage machinery, that there may be convenient access to all. Order in this building is very important. Have a place for every article and every article in its place.

When the implements are gathered into the

shed, procure a gallon of coal oil and a twenty-five cent brush and apply a coat of the oil to the bright parts of castings and wherever liable to be injured by rust. Do this twice a year. Also get half a gallon of boiled linseed oil and apply to woodwork, especially where the paint has worn off. Repeat this operation once in five years. Use good machine oil on all bearings.

Run the binder and other harvesting machines in shelter every day soon as the day's work is over. Allow no implement to remain in the field for any lengthy period, but place in the shed in the condition described. It is thus ready to be taken out when the rush of work comes on in good order. Tighten all loose bolts before using an implement. Keep all machinery knives, colters, skimmers, etc., sharp and in good repair, thus resulting in good work, lighter draft, and heavier crops. A work bench with vice and a few tools for repairing would be a good investment. The building should have a good large window and it ought to be placed over the work bench.

When the foregoing suggestions are neglected the results as seen on many farms are most pernicious. Plows, harrows, seed drills, etc., lie exposed to the weather the year round, and even the binder for months after the harvest, and the vehicles fare much the same; in fact, all are most shamefully neglected. None give satisfaction while in use. We consider that such negligence causes an annual loss to the owner of at least twenty per cent. of their original cost. T. B. Terry, of Ohio, a very eminent authority, estimates the loss at two-thirds. For instance, take two binders, each costing \$125, each doing the same amount of work, but cared for under the two different modes of treatment; he estimates the one neglected to last but four years, while the one well cared for will last twelve years. I trust that others of your readers will take up this important subject, dealing with any essential points which I may have overlooked.

Middlesex Co., Ont. J. W. MCKENZIE.

#### Mr. Plain's Water Supply.

To the Editor FARMER'S ADVOCATE:

SIR,—In regard to S. Plain's article on "Trouble with Water Pipe" in ADVOCATE of July 1st, I volunteer the following in connection with what Mr. J. B. Reynolds has given: The pipe is too small to convey water 80 rods. It will require considerable force to overcome friction on water running through 80 rods of pipe, therefore the pipe should be larger to allow for this friction. Iron pipes often contain obstructions in the shape of blisters, and these blisters would have a tendency to destroy the action of the siphon, as all the air could not be expelled from pipe by action of water. However, if the outlet is six feet lower than the inlet, and the workmanship complete, a continuous flow should be had sufficient to feed one hydrant. The 15-foot hill need not be taken into consideration at all. To sum it all up, I do not hesitate to say that the workmanship is incomplete, or that there is some obstruction in some part or parts of the pipe between inlet and top of hill.

Simcoe Co., Ont.

A. T. GILBERT.

## DAIRY.

### Dairy Tests at the Shows.

A feature of the shows which can be made more attractive, instructive and helpful to farmers is the testing of dairy cows for milk and butter production either by the Babcock test or the churn, or, better still, by both these agencies. A couple of the smaller Ontario shows introduced this feature with good effect last year. We hope to see a larger entry and more competition of breeds in this class of tests at the fairs where such prizes are offered, and that a larger number of the local fairs will have this feature added to their attractions.

The English Jersey Cattle Society offered prizes at the recent Royal Counties Show, at Reading, for a butter test of cows for one day's work. Thirteen cows came forward for testing. The two milkings were mixed, heated to a temperature of 90 degrees and separated, the Alpha Turbine being used for this purpose. The cream was placed in the lock-up dairy for the night, and churned the next morning. The results were exceedingly satisfactory, the whole of the animals tested averaging within a trifle of 2 lbs. of butter each. The first-prize cow, from 52 lbs. 8 ozs. milk, made 2 lbs. 12½ ozs. butter. The second, from 50 lbs. 12 ozs. milk, 2 lbs. 12½ ozs. butter. The third, from 47 lbs. 12 ozs. milk, 2 lbs. 12 ozs. butter.

### Care of Milk for Factory.

Since the hot weather has come we hear of great quantities of milk returned to patrons because of being sour and gassy when it reaches the factory. At one Ontario factory on Monday morning, July 5th, over 15,000 pounds was returned. This is apparently the only plan to get some patrons to brace up and attend properly to the night's milk. One maker informed us that he might go to some of the farms a number of times and advise owners as to aeration and cooling milk, and still they will persist in their indifference. The only practical method is to make them feel the loss down in their pockets by returning their milk when its condition would render it unsuitable for manufacture. That there are difficulties to overcome in case of a large herd where there is no cold

running water through milk room or ice is obvious, and more particularly where an effort is made to preserve Sunday morning's milk for the factory. The following suggestions will prove helpful:

See that the cows drink nothing but pure water, and breathe air untainted by bad odors. That green, scum-covered pond hole must be shut out.

Milk with clean, dry hands, and keep the milk free from stable dust or other contaminating particles.

Strain at once thoroughly, then run the milk through an aerator, or if you have none use the dipper freely pouring and stirring.

Then cool the milk down and stir again before retiring for the night. A deep shotgun can filled with cold water may be set in the large can of milk to do the cooling. Most expert cheese dairymen now consider aeration more important than cooling, but when the latter is done in conjunction with the former the milk will certainly keep sweet longer.

Another plan of keeping night's milk is to strain it into large milk pails, suspend by hooks to a stout pole, and, by having one pail more than enough to hold all the milk, pour from one to another several times during the evening. Some set the pails to cool in a cold-water trough.

P. S.—Empty the whey from the can as soon as it returns from the factory. Rinse out with cold water, then scald thoroughly, rinse again with cold water, and leave the sun to do the rest.

By some of the above plans or modifications scores of dairymen are keeping even Sunday morning's milk sweet and pure for factory use on Monday, and what others can do so can you.

### Keeping Milk and Cream Sweet for City Trade.

"The best and quickest way is to run the milk over an aerator or cooler. This utensil can be bought for a few dollars and would save its cost in a short while. When cooled, pour in a creamer or other tall, narrow can, and place in a box through which spring water runs constantly. The water should rise to the level of the milk, or the cans may be entirely submerged if a tin dish is set over each can, with a small weight on the top. If a spring is not handy, a water-tight box, filled from the well three or four times a day, will answer. In either case, have the box in the shade.

"In carrying to market, keep a damp bag drawn down over the can. There may be periods, excessively warm and sultry, when even this will not give a perfect article. During such times, first cooling the milk, then heating to 160 degrees, and again reducing to 55 degrees by running over the cooler two or three times will enable one to furnish cream that will be acceptable to the most fastidious in the city.

"To heat it, place covered vessels containing the milk in a larger vessel of hot water, using a thermometer to tell when it is right. Do not heat much above 160 degrees, or it will give a boiled flavor to the milk. This will make extra work, but it pays to take a little trouble to hold a good trade these times."—Southern Planter.

### Cleanliness First Essential in Home Dairying.

As to managing milk from time it leaves the cow until made into butter ready for the consumer:

1. Keep milking pails and creamer cans (if used) perfectly clean.

2. I keep milk in the creamer cans, as I find I get much sweeter cream from them than shallow pans.

3. I put the cans in a well of water that is not used for household purposes, and I obtain nearly double the cream from the same quantity of milk that I would if kept in a tub of water. I churn every three days, and never allow the cream to become very sour. It should be kept in a cool place.

4. After the cream is churned, I rinse well before salting, and to a churning of five pounds add two tablespoons of granulated sugar, mixed with the salt, as it gives the butter a finer flavor. I rinse once after salting, and work well before putting it in a roll. Keep in a cool place. The only fault I can find with butter made in this way is it does not last long enough.

MRS. T. A. STANLAKE.

Cameron Municipality, Man.

### Ice, Boiling Water, Cleanliness and Stick-to-it-iveness Essentials to Success in Dairying.

1. I prefer cows to calve in the fall. More milk and butter. I find spring cows cost more for return during the following winter than fresh cows.

2. I take calf from dam, tie it in stall next her. The calf is taught to drink. Feed each calf separately, because some will drink faster than others. My greatest difficulty has been not to overfeed, especially during the first six weeks. Give new milk for a few days, then gradually substitute skim milk, until about six or eight weeks old, when the calf gets all skimmed milk. Then oil cake or oatmeal to take the place of butter-fat. As soon as calf is old enough to eat, I place before it a little clean hay or oats in straw. I think now commences the most important time in the heifer's life, if she is going to be a success. I begin to teach her to take any kind of feed, dry feed mixed with water and made sloppy, whole grain, any kind and every kind, or ground. The reason I give different kinds of grain and in different ways, is to get her

used to taking anything, for I have found that if the heifer is fed only hay and a little grain she will refuse to take what I offer when she is milking. By teaching her to eat anything when young, there is no trouble when she is a cow. I endeavor to develop a large breadbasket. The second winter I feed all the hay she will eat up clean, and twice a day oats in straw. I am differently situated to most farmers in Manitoba and Northwest, as I live in the bluffs. I have about five acres fenced in, and in spring I turn my spring and fall calves into it. This year I am letting my fall calves run with cows, and so far am well satisfied. If I were living on prairie I would keep calves in at least during part of the day. But here, if flies are troublesome or the sun is hot they can go into the bluffs and feed on vetches, which are abundant.

3. Prefer the heifer to drop her first calf at two years old.

4. My four best cows last year on grass alone after milking all winter averaged 2 pounds butter a day each. I used Babcock tester last year. Lessie and Prize of the West tested 68 per cent, Bell of Rosedale (2 years old), 55 per cent, and a grade Jersey 5. per cent. I weighed milk, but through a mishap, I lost weight and have only quantity. Lessie and Prize gave together 2½ pails a day, Bell 1 pailful, and the grade (fresh in spring) 2½ pails a day.

5. The milk, after leaving the cows, is put through two strainers into deep-setting cans and placed in ice water for 24 hours. Then the cream is put into tin cream cans and, if very warm weather, placed in ice water. If necessary, a starter is used to ripen cream. We use the barrel churn (Daisy). We never guess at temperature, but use the thermometer. We heat the cream to from 62 to 68 degrees, according to season, and churn from 30 to 50 minutes. Different herds will require different degrees of heat to churn, common sense will be necessary to determine it. We churn to the granular stage, draw off the buttermilk, wash till all the milk is drained off, then salt, about ½ oz. to 1 lb. butter, work the butter, then let butter stand for one hour, work again, and pack in tubs. White & Co., Belleville, Ont., make about the best butter box. We would use them, but they cost so much to get the few we require that we have to fall back on the spruce tub. I have tried to induce a number of merchants to get in a few hundred, but up to present have failed. We ship nothing but first-class butter; if a churning is spoiled, it is kept at home. We keep butter and cream away from all taints. This year we are sending to Moosomin creamery. In conclusion, I might say it is almost impossible to succeed in dairying without ice, and plenty of it. Cleanliness is an absolute necessity. Plenty of boiling water, and stick, STICK, STICK to it if success is to be obtained.

Eastern Assiniboia.

J. B. POWELL.

### Home Dairy Buttermaking.

I advocate regularity in milking; strain milk as soon as possible and set in ice cold water (when you cannot afford a separator). I let milk stand twenty-four hours before skimming, or, better, running milk off by a tap at bottom of can. I gather the churning before letting it sour, then stir frequently until twenty-four or thirty-six hours after I put in the last cream. For those who cannot prevent their cream from souring while gathering I advise to strain the cream before churning. Perhaps some will think if they give it a trial that they are losing considerable cream; but I think it is only sour milk that is much better out of the butter. In warm weather I churn at sixty-two, earlier in season sixty-six, and in real cold weather at seventy. Use a rocker churn. Run off buttermilk when butter is in granular form, then again I find the benefit of strain dipper. I may say here I was greatly benefited by the dairy superintendent's trip through here; besides, I read with interest all the different ideas I see on dairying. Have not got a butter worker yet, but do the best we can with the old bowl and spoon. I do not like butter worked much, just enough to make the color uniform. As I sell to home customers, I salt to individual taste.

MRS. J. AIKENHEAD.

Cameron Municipality, Man.

### Ensilage and Butter Flavor.

Last year the FARMER'S ADVOCATE devoted considerable space in one issue to a report on the silos in the Avonbank creamery district (Ont.), incidentally touching upon the vexed question of the effect of ensilage upon the quality of winter butter, a large quantity of which Mr. J. B. Muir had been making for several years. At that time we found from the houses handling the Avonbank butter that the quality was unexceptionable. A Hamilton firm (C. H. Peebles) that makes a specialty of handling high-class butter, in closing the past winter's business, writes Mr. Muir as follows: "I take this opportunity of paying you a very high compliment for the very great satisfaction your butter has given us this season. From start to finish we have not had a single chance to find fault with the quality. To put the matter in a few words, 'it was simply perfection.' I would like to put it stronger if I could."

President B. F. Koons, of Storrs Agricultural College, Conn., has resigned, with two of the faculty, owing to dissatisfaction of the Alumni Association with the college management.

**Another Contrivance for Kicking Cows.**

W. W., Bruce Co., Ont., writes:—"I noticed an article in the Jubilee number of the FARMER'S ADVOCATE, 'How to milk kicking cows.' There are, I know, many ways of subduing kicking cows. Here is my plan, which I have found to be very simple and effective: First tie the cow in the stable, place a staple with a small ring in the wall behind the cow. Take a small rope, and to one end attach a hame-strap, buckle it round the off hind leg near the foot, pass the other end through the ring in the wall, and bring it back to the cow, hold it in the left hand and commence milking, and when the cow kicks tighten on the rope, and it draws the leg so that she cannot hurt you. Should she still kick, tighten the rope still more, so that the leg comes off the ground, when she will stop kicking, then slacken the rope, when she will be glad to rest her foot on the floor. If she tries it again, tighten the rope as before; still keep milking, she cannot hurt you. Any small boy or girl can milk a kicking cow by this method, and in three or four days at the most the cow will give up kicking in disgust."

**Dairying in the Northwest Territories.**

BY J. A. KINSELLA, SUPERINTENDENT GOVERNMENT DAIRY STATIONS IN THE N.-W. T.

The Dominion Government has now under its control, and all in first-class working operation, sixteen creameries, ten skimming stations, and eighteen cream-gathering stations. The main creameries, which are provided with cold storage refrigerators in which the butter is kept at a temperature of 30 degrees Fahr., are situated as follows: Yorkton, Moosomin, Whitewood, Grenfell, Wolsley, Indian Head, Qu'Appelle, Regina, Prince Albert, Moose Jaw, Maple Creek, Calgary, Innisfail, Red Deer, Wetaskiwin, and South Edmonton. The new creameries which were built this season at the following stations are: Moosomin, Whitewood, Grenfell, Wolsley, and Qu'Appelle. These creameries are equipped with latest improved machinery. The plants were installed and all steam-fitting done by myself, as I have a practical knowledge of steam-fitting, setting up, and operating of all makes of stationary engines, rotary and centrifugal pumps, combined churns, belt and turbine centrifugal separators, etc., having for a number of years been superintendent for the Allen Grove Combination over their 31 cheese and butter factories, and last winter serving as instructor in buttermaking in the Kingston Dairy School. Great credit is due to the directors at the different Government stations for the zealous way in which they have labored, sparing neither time nor money to make this creamery business a success in the Territories. And it is now almost beyond doubt a success and one of the brightest industries that could be introduced in this country. It may be interesting to readers of the ADVOCATE in the East to know just what kind of buildings we are erecting and also to have a rough idea of the equipment of same. The new creameries are large and commodious, built of British Columbia cedar and spruce, all clear stuff, costing when completed, with refrigerator storage room for two carloads of butter, from \$1,600 to \$1,800. All these creameries were built from plans prepared by the Dairy Commissioner. The plants are of the latest and most improved pattern, costing when laid down in the Territories about \$1,300. We have to-day some of the most substantial and best-equipped creameries in Canada. Some of the large creameries have as many as ten cream-gathering routes and turn out over 3,000 pounds of butter weekly. There is every indication of a large increase another year. Most of the butter is now being shipped to the Kootenay country, the Government having provided excellent cold storage arrangements at Revelstoke. After the end of July the bulk of butter will be shipped to the British markets. In conclusion I might say that in all my travels through the great Northwest I find the crop prospect very favorable. Although not nearly so heavy as they have been in years previous, things point to a fairly good year for the farmers. The best wheat I have seen in the Territories was at Saskatoon, on the Saskatchewan River, where I saw three hundred acres of wheat in one block, over two feet high, all in head.

**APIARY.**

**Notes for Beginners.**

During this month you must not forget to shade and ventilate the hives according to weather, and do not crowd your hive too much. This is the month during which many bee-keepers should provide their bees with winter stores. A beginner must avoid "tinkering" with his bees, and what may be a good plan for the advanced bee-keeper may be all wrong for the beginner. Leave at least two full combs in the extracting super of every hive and hold this in reserve until in the fall of the year you find your bees have enough honey for winter. This will save you much work and trouble. If you are in a district where there is almost sure to be a good buckwheat flow, the latter may be depended on. Keep your bees together as much as possible, avoid after-swarms by putting the new swarm on the old stand, and in light second swarms try and find the young queen or queens and return the remaining bees. See that every colony has a queen and you will lay the foundation to successful bee-keeping.—R. F. H. in Can. Bee Journal.

**POULTRY.**

**Fertility of Eggs.**

I have just been reading about a rather interesting experiment carried on by the poultry editor of an American journal, Mr. C. E. Speirs. They are a great people for experiments, the Americans, but they not infrequently stop short before the work has been carried on to its utmost limits. So with Mr. Speirs. The two points which he resolved to solve were: (1) How soon after the introduction of the cock bird to a pen of hens will the eggs from these be fertile? (2) How long after the male bird's removal from the pen will the eggs subsequently laid by the hens be fertile? The experiment so far as it went was entirely successful, and carried on under particularly favorable conditions. Some forty Leghorn hens were put in three pens seven feet by eight, with a run which measured six feet by sixteen. Male birds of the same variety were purchased and placed in the pens on a certain date. There had never been male birds on the place before, so that the eggs could not have been previously fertilized. It seems quite plain from the results obtained by Mr. Speirs that eggs may be considered fertile within a week of mating, and in this case seventy-five per cent. were found to be fertile on the fourth day. On the other hand, again, it was found that the fertility of the eggs was not materially affected for twelve days after the male birds had been taken away. Then, however, there was a marked decrease of fertile eggs. It is just a pity that we do not know from this experiment how long hens must be removed from the male birds before the eggs are entirely unfertile. Mr. Speirs only saved his eggs for fifteen days. Perhaps some of our readers have made the experiment themselves. If so, will they give us the results obtained? I should like to try it, but under present circumstances that is impossible.—E.R.

**Hens Do Pay.**

To the Editor FARMER'S ADVOCATE:

SIR,—That oft-repeated question, "Do my fowls pay?" varied sometimes by being made more emphatic, "Poultry does not pay," is heard again throughout the land. I will endeavor in a few lines to show some of the causes why this question is so often heard and nine times out of ten an answer given in the negative. The first trouble lies in the fact that farmers hatch out chickens far too late in the season. At time of writing (July 2nd) large numbers of eggs are still under the hens. These, supposing every egg hatches a strong, healthy chick, are practically worthless. Will they hatch strong, healthy chickens? My experience with late hatches is that germs are weak and consequently the death rate high, and if carried successfully till winter sets in the first cold snap generally kills the lot.

Then as to winter quarters. Many and vigorous are the complaints I have heard from the farmers' wives and daughters. I will describe a few in our neighborhood, and I have no doubt they are types to be met with in all localities.

One man, who, by the way, prides himself on taking prizes at our local shows, put about ninety hens and roosters in a coop about 10x12 ft., situated in center of a large barn, supposing that heat, being the first requisite, would surely be attained. He was successful—he warmed them to death. When too late he gave them the run of the aforesaid barn, but only had about thirty when spring came.

Another to secure heat made his coop in a loft above his horses and cattle, leaving large open spaces in the floor to allow heat to ascend. It does, so does steam, bad air, and death.

A third and last, not because the list is exhausted, but because the same old story slightly varied becomes tiresome. The building is made of logs and if properly chinked would be warm. A pane of glass 8x10 in. to light this 20x20 feet. The roof is old rotten straw and acts like a sieve. Heated the building must be, so ten or a dozen calves are turned in. There being no floor, the earth has become trodden and pounded down below outside level, and, of course, surplus water drains into it. The losses here, though large enough, were not so great as in other cases. No doubt on account of our dry winter season dampness was not so much in evidence.

Another cause why "fowls don't pay" is the way they are fed. The reason for this must be sought not on the score of expense. The common way is when feeding the stock to throw on the floor—cleaned or not, no matter—a large supply of grain. The hens eat it up as fast as possible, then return to the roost and wait for the next meal. Here in Manitoba chop feed, bran, shorts, oats and barley crushed is cheaper than the best whole grain ration, therefore I say it cannot be on account of expense that soft feed is so little used. Anyone conversant with the subject at all knows which is the better way to feed to produce eggs.

Another trouble is lice, with a big L. They are everywhere—on the roost, in the nests, on the walls, on the heads, under the wings, amongst fluff, until the life of the hen is miserable, and misery is not productive of good results. How many think of providing good sharp grit for the fowls? The usual idea is that "they, being at liberty, can easily obtain all that is required" in this line. Think for a moment the innumerable times that the same range has been eagerly scanned

by past generations of fowls until every particle has been picked up, done its work, passed on, and been picked up time and time again, each time becoming less and less suitable for the required object—grinding of grain.

Do fowls pay? I say emphatically, "Yes," but they must have the requisite care and attention. My account book shows that for month of June my expenses for feed were \$5.50, receipts \$13.28, notwithstanding it is a month of extra heavy expense for feed, owing to having to feed so many growing chicks. Eggs at this season cost to produce about 5 cents per dozen, and as I have sold none at less than 12½ cents the margin of profit is satisfactory. Red River Valley. W.

**GARDEN AND ORCHARD.**

**Fruit Preserving Humbug.**

The FARMER'S ADVOCATE learns that parties have been peddling through portions of Ontario Province a preparation in packages, called "Cold Process," to be used with sugar and water in preserving fruits, vegetables, milk, etc. A copy of the printed directions distributed by the agent or peddler has been handed us, and we find it filled with a lot of absurd claims such as this: "You will find your fruit as nice and healthy when you come to use it in nine months or a year as when you picked it; in fact, it tastes just the same as when plucked." "A few grains dropped in milk will keep it from souring." "Green corn will keep perfectly fresh on the cob." "The Cold Preserver is not only harmless, but healthful." "If you don't want to use all at one time you can divide and use whatever quantity you desire; you can divide it by guess without having it weighed." No doubt! If anything more were needed to stamp it as an impudent humbug, the bogus copyright notice at the head of the slip, and the anonymous address, W. W., box 275, in a small town in Bruce County, Ont., would be sufficient. To accomplish anything like what is claimed would require the use of salicylic acid, which instead of being harmless is most injurious to health. We have strenuously opposed the use of so-called preservatives, and we warn our readers to shut the door on any peddler of "Cold Process" or similar preparations or recipes therefor. As far as milk is concerned the best preservatives are cleanliness, aeration and cooling.

**In Praise of the Onion.**

The onion enjoys the reputation of being one of the healthiest of vegetables. The principal objection to the promiscuous use of this vegetable is that the odor exhaled after eating it is so offensive. A cup of strong coffee, taken immediately after eating it, is claimed to be excellent in counteracting this effect. Although for a day or so after eating onions, the breath may have a disagreeable odor, yet after this time it will be much sweeter than before. For croup onion poultices are used with success, provided the child is kept out of drafts, and a sudden chill is avoided. The poultices are made by warming the onions in goose oil or otherwise until soft, then putting them on the child's feet and chest as hot as they can be borne. Except in very obstinate cases, the croup when taken in time readily yields to this treatment.

Onions are excellent blood purifiers, and for eradicating boils are very efficacious. They are also good for the complexion. People suffering from nervous troubles are much benefited by using these vegetables frequently, either cooked or raw. When troubled with a hard cough, if a raw onion is eaten the phlegm will loosen almost immediately. Those troubled with wakefulness may ensure a good night's rest often if just before retiring they eat a raw onion. There are few aches to which children are subject as hard to bear and as painful as ear-ache. One of the best remedies for this complaint is to take out the heart of an onion and roast it. When soft put it over the affected ear as hot as it can be borne. Unless the cause is deeper than ordinarily the pain will cease in a very short time and will not return. A cough syrup in which onions form an important part is made by taking one cupful of vinegar, one cupful of treacle, and a half cupful of cut-up onions. Put on the stove and simmer about half an hour, or until the onions are soft. Then remove and strain. Take a teaspoonful of this frequently when troubled with a cough, and unless very deep-seated the cough will not last long.—Farmer's Gazette.

**Salt for the Cabbage Worm.**

I am opposed to the use of Paris green in any form for cabbage worms, as it is dangerous. I have grown cabbage for many years, and have never used this poison for the worms, but have a remedy that is sure death. Dilute strong beef brine one-third with water. Dip a whisk broom into this mixture and shake it over the plants at any time when there is danger from worms. The solution is a fertilizer in itself and will not harm any one. I have used this for the last twenty years with perfect success, never failing to kill worms or raise fine cabbages. It will not answer for cucumbers, squashes or pumpkins, as the salt will kill these plants.—B. B. Hanson in American Agriculturist.

## Rhubarb and Asparagus.

BY HARRY BROWN, EXPERIMENTAL FARM, BRANDON, MAN.

No vegetable responds more readily to a minimum amount of cultivation than rhubarb, and, as it makes a first-class substitute for fruit, it should be much more extensively grown, especially in a province like this, where our fruit resources are extremely limited. Two methods of starting a bed of rhubarb may be adopted, either by sowing the seed or planting roots, but the latter is much more preferable, for, except in rare instances, rhubarb will not come true to type from seed; in fact, retrogression in every feature is very apparent in seedling rhubarb. If a few old roots can be obtained so much the better, and these may be divided with a sharp spade into as many pieces as there are eyes. Care must be taken, however, to ensure the fact of there being an eye or bud to each root, as they will not grow if this is missing no matter how large the root may be. Rhubarb is a particularly heavy feeder, and this fact must be taken into consideration when preparing the land for planting. An old piece of garden, which has been manured for a few years, will make an excellent situation, if plowed deeply and heavily manured before planting. Do not be afraid of putting on too much manure, for in this point lies the main secret of successful rhubarb growing. The plants should be set out in rows five feet apart each way, care being taken not to bury the crowns, which should be about level with the surface. Fall planting gives the most satisfactory results, and a coating of well-rotted manure spread on the bed to the depth of six inches every fall will materially assist development. If the above instructions are followed out you will be surprised at the marvelous growth of your plot of rhubarb. Never allow the plants to run to seed, but on the first appearance of flower-spikes remove them, as they greatly tend to lessen the vigor, besides causing the whole plant to become tough and insipid. For a large growing variety I would recommend *Tottle's Improved*, while *Victoria* and *Linnaeus* are more appreciated by some on account of their brighter color.

A word or two with reference to a disease which made its appearance at the Farm in 1895. The symptoms of attack are a reddish discoloration of the leaves, which gradually spreads to the stems, and the whole plant dies off long before its appointed time. The trouble is caused by parasitic fungi, and the following remedy has been used with excellent results:

Copper sulphate (bluestone).....	4 lbs.
Quicklime.....	4 lbs.
Paris green.....	4 ozs.
Water, 1 barrel.....	40 or 50 gal.

Mix thoroughly, and keep constantly stirred while using. This should be sprinkled thoroughly on the crowns before starting in the spring, and after losing their leaves in the fall. I would suggest, where the ingredients for this mixture are not easily available, using the ordinary bluestone liquid in the same proportion as when treating wheat for smut.

## ASPARAGUS.

This is another hardy perennial vegetable which is not grown as extensively as its excellent qualities and ease of cultivation deserve. As it is the earliest and most delicious of the season, it invariably commands a high price, and everyone possessing a garden should find a corner for a bed of asparagus. Manitoba and the Northwest seem specially adapted for the successful cultivation of this vegetable. In European countries laborious preparations have to be made before planting, but the labor necessary here is comparatively trivial, as will be seen from the following: Plow the land deeply in the fall, having previously spread a liberal coating of rotted manure over it. Planting should be done the following spring before any growth has commenced, using two-year-old roots if possible. These should be planted in rows two feet apart, and one foot apart in the row, spreading the roots out flat and burying the crowns about three inches. Nothing should be cut from the plants until the spring following, and even then it should be done sparingly; but the second year from planting all that is required may be taken, provided enough shoots are allowed to grow to retain the vitality of the plants. When roots are not obtainable the bed may be sown, the only difference being that a longer time is required to bring it to the eating stage. When this plan is adopted the seed should be sown thinly in rows the same distance apart as in planting, but I wish to particularly emphasize the following: *Thin out the plants to one foot apart as soon as they are an inch high*, for if allowed to obtain a strong root-hold it is almost impossible to dislodge them. A liberal sowing of salt before growth commences in the spring and a light coating of manure in the fall tend greatly to the luxuriance of the crop and will well repay the additional expense. Up to the present the variety known as *Conover's Colossal* has been almost universally grown, but after repeated tests we have found the following to supersede the above both in productiveness and flavor: *Columbia Mammoth White* and *Barr's Mammoth*. In conclusion I would say that a bed containing 100 to 150 plants is sufficient for an ordinary family.

## VETERINARY.

## Air Space and Bovine Tuberculosis.

To the Editor FARMER'S ADVOCATE:

SIR.—The statement is made by the N. Y. State Tuberculosis Commission that tuberculosis may be conveyed to man by eating infected meat, and that an animal affected with tuberculosis will sooner or later give milk infected with the germ of the disease, and so milk is not only a possible but very probable source of tuberculosis in both children and adults. So the question of tuberculosis in animals becomes one of the most vital subjects to the well-being of the general community, both urban and rural, and any possible cause of this disease should at all times be sought out and removed. In man, overcrowding and bad ventilation are some of the most fruitful causes of this disease; and old army records abundantly prove the same thing in reference to the horse. I do not think I am going too far when I state that horses are better housed than cattle, and both more air space and floor space allowed per head and per pound. This question in years past was not of such very great importance, for stables were mostly built of wood, and the carpentering was not of the very best quality, so the supply of fresh air was practically unlimited. But with the advent of the modern bank barn, with its almost impervious walls and close windows and doors, the question of air space and also of air supply becomes one of first-class importance. On first-class farms, with better bred and better fed stock, and stock which during a considerable period of the year practically lives in the barn all the twenty-four hours, the necessity for plenty of fresh air all the time is still more accentuated.

Men in barracks, according to army regulations, are given 600 cubic feet per man, and it would be better if this were increased to 1,000. Hospitals generally supply from 1,200 to 1,500 cubic feet of air space. Now cattle, according to these estimates, would require a space varying from 3,000 to 5,000 cubic feet, but as they can bear a far more frequent and abrupt change of air than man, a much smaller air space than this will suffice, and for a herd of cattle of all ages 1,000 to 1,500 cubic feet, with a floor space of about 100 square feet, would do. A general rule of two cubic feet of air space per pound of animal, and one-twelfth as much floor space as cubic space, will do very well, always bearing in mind that frequent change of air must be provided at the same time.

The stables for the fattening cattle at the Ontario Agricultural College, Guelph, are 50 x 120 x 10 feet. This gives a cubic space of 60,000 feet. In it are housed about 70 cattle, the average weight of which must be considerably over 1,000 pounds. Now, according to the rule which I have laid down, these would require about 140,000 cubic feet of air space, together with frequent change of air. This change of air is only provided for by door and window ventilation, and is fairly ample in summer. But even with all these open, on my visit to the stables, the smell was none of the best. What it must be in the winter nights with all of them closed I do not know.

I have examined a great number of these bank barns, and only in the very best of them do I find 600 cubic feet of air space allowed per head, and with this fairly free admission of air, and in some of the worst not more than 250 feet are allowed, and little if any change of air is provided for during the night. Tuberculosis, it is said, is on the increase among our cattle, and the tuberculin test is being freely used to find it out. Cattle are being slaughtered to prevent its spread, and our cattle trade is harassed and in danger on account of this disease.

Perhaps many may call me a crank on this subject, but I really think that a little more attention along these lines, with a free application of fresh lime spring and fall to the walls and woodwork of the stables, would at least have a beneficial effect, and in some cases the disease might be prevented.

J. H. GARDINER, M. D.

## Experience with the Tuberculin Test.

To the Editor FARMER'S ADVOCATE:

SIR.—Our attention is frequently drawn at the present time to articles in the agricultural journals on the tuberculin test. While some persons condemn the whole proceeding as a farce and a scheme, there is certainly a feeling of unrest, for many have come to realize that tuberculosis exists where it is sometimes least expected, as experience has shown the writer, and from that experience I feel justified in making a few statements public.

In the fall of 1894, while practicing my profession (veterinary surgery) in New York State, I was favored with an appointment from the State Board of Health to make tuberculin tests, which gave me more experience in a short time than a life-long private practice. Under the Act an appropriation of some \$20,000 was set apart for the work to pay the expenses of testing, official salaries, and for cattle destroyed, but the funds were soon exhausted and the work discontinued, and I believe no sum of any importance has been set apart since for that special work, although there were hundreds of applications from owners to have their herds tested that were never responded to. Our instructions were to proceed to Standard's place and make a careful examination of the herd, and if tuberculosis was found to exist to report to the secretary, when an appraiser was sent, who set the

value and reported to the Board. A scale of values was fixed; for instance, no grade cow was valued at over \$60, or registered animal over \$120. One-half of which was allowed when post-mortem proved them tuberculous.

My first trip was in the vicinity of Schenectady, N. Y., where we made a test of all the herds supplying milk to that city, and although I have not the records before me I remember distinctly that the number of animals responding to the test in one herd had no relationship as to numbers to those responding in another; some herds being entirely free, while in one, the largest dairy supplying the city, over one-half the animals responded to the test. This same herd presented the finest appearance of any we saw, showing that without the test no man living is in a position to say which is healthy and which is not. Consequently, with this fact in view, it is all-important that none but qualified, careful men be entrusted with so important an operation, for it is exceedingly desirable that when the test has been made, the owner, and the public who depend upon that herd for milk, should have the facts without any doubts whatever. It may not be out of place to map out a course of procedure: First of all the operator should be supplied with freshly prepared, reliable tuberculin, a strong hypodermic syringe equipped with at least three strong needle points, at least half a dozen reliable thermometers which all register alike, and a sufficient number of record charts. The animals are all confined in their stalls the day previous to receiving the injection, which should be given at 6 p. m., and before which the operator must have an accurate account of each animal's temperature, taken at intervals of at least three hours during the day and evening up to 10 p. m. At 6 a. m. a record of all temperatures must be taken, and at each succeeding two hours during the day, and up to 8, or better still, till 10 p. m. that evening. It will be found that before the injection the normal temperature will vary as much as two degrees in four or six hours, consequently it is all-important that those animals are known before the injection has been made. No definite rule can be laid down as to the number of degrees of rise an animal may show and be allowed to escape condemnation, so long as they do not exceed two degrees over the previous day, and are in perfectly healthy surroundings, and no well-marked cases are in contact with the herd. Again, in some debilitated animals a positive rise of one degree is to be regarded as very significant, for in the latter stages of tuberculosis, where the system already contains a great amount of broken down tubercular matter, it has been proven that very little rise results from the further introduction of a cultivated lymph in the system; consequently it can be easily seen how important a matter it is that only the most careful, competent, and, if possible, experienced men be employed, upon whose judgment so much depends. Again, there are certain conditions under which it would be positively wrong to make the test; for instance, in an animal suffering from any feverish disease or condition, or such as being in heat, or in the advanced stage of pregnancy, for in those animals the temperature varies very much, and any variation might be regarded as suspicious, and yet be very misleading. No food or water should be allowed the day following the injection until at least 4 p. m., for during or after a meal the temperature runs up from one to three degrees, as also in mastication, while a drink of cold water will tend to equally lower it.

Wherever we found old, low, unsanitary houses with insufficient light and ventilation, and bad drainage, we also invariably found tuberculosis, and in no breed did it predominate, yet none were exempt where their surroundings were unsanitary or had been exposed to contagion. [NOTE.—From the official report of the N. Y. State Tuberculosis Commission we find that in 1894 in 21 counties some 2,417 cattle were examined, of which 405 were condemned and slaughtered. Of these 287 were common cattle, thus controverting the opinion heretofore generally held, that common bovine animals have immunity from disease.—EDITOR.] It is the writer's opinion that with due regard to the sanitary surroundings of our herds and their freedom from affected animals, tuberculosis will in a few generations not attract so much attention as at the present time.

Many opponents of the test boldly assert that they are not in any way alarmed about using milk from tuberculous cows and would as soon drink it as that which they knew to be perfectly free; and for such people I can only express my greatest sympathy, for how many persons are made miserable all their lives by conditions of indigestion, diarrhoea, abnormal conditions of the liver, kidneys and spinal cord, to say nothing of the hundreds of infants who die annually from their peculiar diarrhoea, a large percentage of which is unquestionably tubercular. Just here I may add that through such a case as this the cows supplying milk to Schenectady were tested. While after repeated attacks of diarrhoea in an infant the attending physicians suggested stopping the milk from that particular cow, after which no further trouble presented itself. The cow on being tested responded heavily. The writer also distinctly remembers being requested to examine a herd with a bad record on account of different cows having been lost within a few years and the wife of the owner had died from the disease two years previously. Every cow on the place responded and post-mortem proved con-

clusively that no mistake was made in their destruction. A whole volume could be written on just such experience, the knowledge of which was gained while I was in the employ of Uncle Sam.

My advice to breeders is to employ only reliable, competent men to make your test if you have any doubt in your minds about its existence or not, and insist upon sufficient time being consumed to make it accurate; and by all means be perfectly satisfied that you know what the animals' temperature is before you allow them to be injected, and do not be too eager for the operator to get off the place until all reasonable doubt has been cleared away, for it is a fact that it does not act alike in all cases. In some I have known a positive and lasting rise to take place inside of eight hours after the injection, as also have I known it delayed until twenty-four hours following the operation.

I have frequently been asked where the injection should be made, and have listened to different opinions on the subject; some inserting the needle in the end of the tail, insisting that that is the proper place, and to which I can only add that I consider it a very improper location, if for no other reason than that it creates a great restlessness with the animals in inserting the thermometer afterwards; and I consider there is no location more favorable than the shoulder, midway between the top of shoulder and the elbow or over the center of the scapula. The operator, if right-handed, crowds the animal tightly over in the stall, and with the thumb and forefinger of the left hand pinches up the skin tightly and with the syringe in the right hand carefully but quickly presses the needle through the skin and the injection is made. Some animals are very restless and require to be held by the nose, but they are the exception; the whole operation occupying much less time than it requires to write it, and the quicker the operator proceeds with the work the more successful he will be. Another point not to be regarded lightly is the fact that all instruments require strict attention and must be kept free from poisonous matter, which convey such material to the wounds they make and produce annoying disturbances, such as blood poisoning, abscesses, etc., which tend to create an elevation of temperature.

The question has been frequently asked, "Does the injection affect the milk of healthy cows?" and to which I would reply that I consider it advisable to reject at least the following milking, as the secretion certainly contains a portion of the injection.

JOHN SPENCER, V. S.

**A Maine State Tuberculosis Scare.**

The Maine Board of Agriculture has made a thorough investigation of the Luther Bridges "tuberculosis" case at Bluehill. The story as published in a daily paper was this:

"Bridges has had a cow four years, and his family of nine children, all under seventeen years of age, with one exception, have lived upon the milk, and while heretofore they have been quite well, they have always been emaciated and poorly nourished. Five of them have recently had tubercular pneumonia, and one died Tuesday, one Wednesday, one Thursday, and three others now lie at the point of death. There is said to be a prospect that other deaths will follow. The cow was killed, and Dr. Bailey states that the animal had the worst case of tuberculosis that has ever come to his notice. The little girl, the only child having an aversion to milk and not drinking any, is strong and appears to enjoy the best of health."

The facts prove to be these:

1. That the children who died died of croupous pneumonia and not of tuberculosis.
2. That the present illness of Luther Bridges and his son is pneumonia and not tuberculosis.
3. That no tuberculosis was present in the cow.

The secretary of the Board adds the following comments:

"Thus it will be seen that another attempt to terrorize the farmers of the State into subjecting all of their cows, no matter what their condition might be, to the tuberculin test, at an expense to them for the test alone of not less than \$150,000, has fallen flat, and that the efforts of the alarmist are brought to naught in the clear light of carefully prepared facts. Again, it has been shown that tuberculin is not infallible—in fact, that it may not be reliable—and that it is unsafe to depend solely upon it to diagnose tuberculosis. In this case we find a poor family deprived of their only cow, a perfectly healthy animal, the much afflicted parents distressed by the thought that they had unwittingly permitted their children to be poisoned, and the entire community and the State thrown into a fever of excitement and alarm by this one mistake. It may, perhaps, be said that it was not properly applied, or that the temperatures were not correctly taken, but Dr. West is a regular veterinarian of considerable experience, and is one of the executive officers of the Maine Veterinary Medical Association; and the average farmer may well ask, 'If he cannot properly apply it, who can?' The dairy business of Maine is one of the most important industries of the State. A large number of people are directly dependent upon it, and it brings more money into our farm homes than any other branch of farming; therefore, any effort to bring distrust upon the healthfulness of its products, or to subject those who are engaged in the business to unnecessary expense or inconvenience, should be looked upon as a blow at the welfare and prosperity of the State, and discountenanced by all of her citizens."

**ENTOMOLOGY.**

**San Jose Scale.**

To the Editor FARMER'S ADVOCATE:

SIR,—The San José scale has not yet been discovered in this county (Essex). There is great danger of its being imported into Canada if American trees and fruits are allowed to be shipped into this country. It is often present on the fruit as well as on the trees. It is more liable to attack the apple and pear than the peach. All fruit and ornamental trees suffer from the pest. The scale is so small that it is very difficult to find until it becomes very numerous, then it is not easily destroyed. The remedies used to destroy other insects are not satisfactory when used for the scale. It would, no doubt, be for the best interests of the fruit growers of Ontario if the importation of both fruit and trees were prohibited for a time at least. The supply of Canadian-grown trees will nearly or quite equal the demand. A number of small nurseries have started up during the last year or two. These, together with the increased plantings of the larger nurseries, will prevent any serious rise in price of nursery stock.

W. W. HILBORN.

Essex Co., Ont.

**QUESTIONS AND ANSWERS.**

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

**Miscellaneous.**

**SHORTHORN SCALE OF POINTS.**

ROBERT BROWN, Huron Co., Ont.:—"Will you kindly publish in your next issue the points of a Shorthorn bull and cow, and oblige a reader?"

[So far as we are aware, neither the Canadian, English or American Shorthorn associations have ever published a scale of points. There have, however, been several amateur lists gotten up by score-card enthusiasts. Years ago, some one attempted Shorthorn judging at the New York State Fair by that plan, but it proved such a farce that the judge resigned. The following resumé of the chief points, without any numerical values attached, may prove of interest and value to the enquirer:

**LEADING POINTS OF SHORTHORNS.**

**HEAD** rather small in proportion to the size of the animal, tapering, clean-cut, handsome and well-set, and longer and narrower in the female than the male. *Forehead* broad between the eyes. *Face* slightly dished in the female only, and tapering gracefully below the eyes to the nostril. *Nose* straight and tapering. *Muzzle* medium and broad, full and moist. *Nostrils* large and fairly expansive. *Cheeks* not heavily fleshed, the lower jaw in the female thin. *Eyes* large, full, bright, calm and intelligent. *Ears* rather small, thin, well covered with soft hair, somewhat erect and playing quickly. *Horns* short, but longer and finer in the female than the male, flat rather than round at the base, spreading and curving gracefully forward with a slightly downward or upward tendency, and of a creamy-white or yellowish color.

**NECK** moderately long, of medium thickness and arched in the male, but thin and straight in the female, gradually widening and deepening and slightly rounding as it approaches the shoulder, springing straight from the back setting well into the shoulder and brisket, and carrying the head gracefully. *Throat* clean-cut and without dewlap.

**BODY** fairly long, broad, deep, rectangular, almost a parallelogram. *Shoulders* well-aid, slightly sloping forward and downward. *Back* broad at the top, but finer in the female and well laid back toward the ribs. The shoulder points or neck vein wide and full. *Chest* full, wide and deep. *Brisket* and *Breast* broad, low and projecting well forward. The *Forearm* where it joins the body broad and graceful, tapering to the knee. The *Ribs* should incline to the shape of a barrel, springing well and level from the back bone, increasing behind the shoulder and in front of the hooks, so that the animal when viewed from the side should appear straight and level from the shoulder to the buttock. The *Heart Girth* should be good. The *Back* straight and level from the neck just below the horns to the top of the tail, and well covered. The *Loin* wide and level across the hooks. The *Quarters* long and full from the hook to the tail, and deep from the hooks to above the hook. The *Hips* should be wide and level with the back and loins. The *Hip bones* so dovetailed into the quarter and false ribs as to almost disappear. The *Twist* should be straight down, moderately wide and deep and well-fleshed. The *Flank* deep and low, and full and thick. The *Thigh* full, long and heavily fleshed. The *Tail* fine, tapering and set on a level with the back, and not too much covered with hair.

**LEGS** should be short and well set under the animal, and below the knee and hock joints, fine and flat and clean. The *Hocks* should be rather straight, short and well within the animal. The *Foot* flat and in shape an oblong semi-circle. The *Skin* should be of medium thickness, mellow and elastic to the touch, and of a rich cream or orange color. It is finer in the female. The *Hair* should be fine and abundant, soft and glossy. The *Udder* broad and full, extending well forward along the belly and well up behind. The *Teats* should be of good size and squarely placed, well apart, with a slight oblique pointing outward. The milk veins large and swelling.

**COLOR**—The standard colors are red, roan, and white. The skin around the eye and bald of the nose should be of a rich cream color.

**GENERAL APPEARANCE**—The animal should possess style, symmetry of outline and gracefulness of carriage.

**MORE ABOUT HEREFORDS.**

ERNEST H. MORRIS, Victoria Co., N. B.:—"I beg to acknowledge receipt of book, 'Fertility of the Land,' and copy of FARMER'S ADVOCATE. I hope to remain a subscriber, and would be glad to see more on the Hereford cattle, if possible, and their crosses."

[See May 1st issue FARMER'S ADVOCATE, page 188.]

**BEST BREEDS OF LIVE STOCK.**

"A," California:—"I am well pleased with the FARMER'S ADVOCATE, and will do all I can to get subscribers for it. Your answer to my question concerning calf raising without milk was and is very much appreciated. Now, if it is not too much trouble, please answer the following: (1) Give the best breed of cattle for beef. (2) Give the best breed of sheep for mutton. (3) Give the best breed of hogs for pork—all English breeds?"

[Our correspondent has asked us rather a hard series of questions. We are not aware that these questions have ever been answered in a way that is fully satisfactory to the bulk of those who are interested in their solution. Even in Great Britain, the home of the breeds, where the area of the country is comparatively small and the climatic conditions, though more varied than those who have not gone over the ground are likely to suppose, yet are not probably so varied as on the great American continent, the question of which is the best breed has by no means been settled and probably never will be. The question, which is the best breed for you, for your conditions and environment, for your pastures or other sources of food supply, your markets and for your tastes and preferences (if you have any) is one affording scope for a great deal of close individual observation and judgment.

Shorthorns have given entire satisfaction as beef producers in the stall or on pasture, especially the former, and have proven excellent in grading up common or mixed bred stock, producing, as a rule, fairly good milking cows and early-maturing and quick-feeding steers. The Herefords are especially popular both in their native home and in America as graziers, laying on flesh rapidly and making good use of their feed in the stall as well. The Scotch breeds, the Polled Angus and the Galloway, are thick-fleshed and produce a fine quality of meat; the latter are also prized for their hides, which are covered with long, curly, silky hair, and make excellent robes for carriages or sleighs. They are very hardy, and good rustlers and fair milkers. The Polled Angus are much like the Shorthorns in conformation and feeding qualities, though unlike them in being polled, or hornless, and black in color. The Devons and Sussex are much alike in form, and are both solid red in color. They are good feeders, good milkers, active, hardy, and good beef producers.

An interesting feeding test of beef breeds of cattle was conducted at the Ontario Agricultural College, an account of which is given in the annual report of 1892, a copy of which can doubtless be obtained by writing Hon. John Dryden, Minister of Agriculture, Toronto, Ont.

Of the different breeds of sheep for quality of mutton, the Southdown is credited with being at the top, and they have proved well adapted to warm climates and short herbage. They are not large and do not shear heavy fleeces, but their wool is fine and they are easily kept. The Shropshire is of similar character to the Southdown, growing a little larger and producing a somewhat heavier average fleece of nearly equal quality. The Hampshire is larger, has fine fleece, good lean meat, and the cross produces large, early-maturing lambs. The Dorsets are prolific, will produce a fine quality of mutton, and are especially suited for producing early lambs. Of the long-wooled breeds, the Leicesters, Lincolns, Cotswolds and Oxford are very much alike in that they are large, thrifty, early-maturing sheep, and produce heavy weights of mutton and wool. In this connection, we would refer the enquirer to the FARMER'S ADVOCATE for Nov. 16th, 1896, in which the results of Prof. Curtis' celebrated Iowa feeding experiment with Canada lambs of the various breeds (illustrated) is given.

Of the English breeds of hogs there are three which have given good and by all odds the most widespread satisfaction as pork producers in America: the Berkshire, the Improved Large Yorkshire, and the Tamworth. Of these, the former have had a long trial over a large territory, extending from the extreme north to the extreme south, and have proved well adapted to all conditions. They are early-maturing, active, and vigorous, and as found in the hands of the best breeders, who have been guided by modern conditions, have the length of body, the leanness of flesh, and the size which meets the demands of the present-day markets. The Yorkshires are noted for great size and long, deep sides and lean flesh, and will readily attain the desired weight at an early age if well fed. The sows are prolific and good mothers. They are white in color, and make an admirable cross with sows of Berkshire breeding. The Tamworth is a dark red hog with long, light head, long, deep sides, smooth flesh with plenty of lean meat, and are good feeders. They are considered especially useful for crossing with the Berkshires or Yorkshires, producing a quick-feeding, early-maturing animal, having fine quality of flesh and attaining good weights at an early age. Canada is now enjoying the fruits of careful attention to breeding and feeding the modern type of the bacon hog. For details of an interesting experiment in this connection, see the annual report of the Ontario Agricultural College for 1896, referred to on page 270 of our June 15th issue.]

**RYE FOR ENSILAGE.**

HARRY J. GOULDING, York Co., Ont.:—"Can you kindly inform me if rye grain sown in August or early September, 1897, would do to cut green say

in June, 1896, and at once make into ensilage, cutting it into silo for feed during July, August and September? Has it been tried successfully? Would I be safe in trying fifteen acres this August or September? I must feed milk cows with it, and sell the milk to a Toronto dairy. Will it taste the milk wrong?"

[Re fall rye for ensilage I beg to say that during the summer of 1891 some green rye was put into one of the silos at the College. The result was not satisfactory, as it did not keep well, and even that which came out in fairly good condition was not relished by the stock; in fact, it was difficult to induce the animals to eat it at all. As for its effect on the flavor of the milk I cannot say, but in an experiment this spring with green rye and alfalfa, the butter made from green rye scored five points lower for flavor than that from alfalfa, the green rye butter scoring 35 and the alfalfa 40 out of 45 points.

G. E. DAY, Agriculturist.  
Ontario Agricultural College.]

#### YOUNG TURKEYS GOING BLIND.

JOS. MYERS, Grey Co., Ont.:—"I have young turkeys that go blind when three or four days old. They act dumpy and refuse to eat. Can they be cured? If so please give remedy."

[Evidently the young turkeys have been exposed to wet and cold, and suffering from its effects or from injudicious feeding. A cold will cause bowel trouble, which will affect their sight. I would advise feeding bread crumbs, to which add onion tops cut fine, also curd. If turkeys are allowed to "brood" on the same ground or left in coop without being cleaned out regularly, will cause similar sickness, as the excrement from turkeys is more poisonous than from any other fowl. Young turkeys should never be allowed out in the morning while the dew is on the grass. Reader did not say what kind of treatment these turkeys were receiving, or a more satisfactory answer could have been given.

L. G. JARVIS, Poultry Manager.  
Ontario Agricultural College.]

#### TROUBLE WITH PIGS.

W. CLAYTON, Wellington Co., Ont.:—"I am obliged to call on you for help. I am in trouble with my pigs. In 1893 I built a pigpen and hen-house combined (stone). It is 24 x 40 feet inside, 12 feet of one end for chop bins, turnip house and boiler, and 12 feet of the south end for hens, and they have 13 x 40 feet over the collar-ties. In 1893 I fed 3 pigs that weighed 187 pounds at 5 months old. They were the first in the new pen. Then I bought 13 lean pigs; when I put them in they weighed 1,100 pounds. They went onto the market in 52 days, and they weighed 2,640 pounds. The next were 5 at 6 months and 2 days old went 210 pounds each. Then after that they did not do so well: they started to be lame—sometimes on one front leg and sometimes on a hind leg, but not what you would call a founder. And this last two years they started to cough; they cough worse after lying down for some time, and if you stir them up you can see each side thumping as if their heart was beating very heavily. My pigs have been doing worse every year. In the winter I feed chopped barley, buckwheat, peas, and oats, shorts and bran, also turnips, that is the winter feed. In the summer I have clover in place of roots. They are fed regular, and their bed is always dry, and (they get charcoal, sulphur, salt and earth in the winter) they are out for an hour every day except Sunday, and their pen is cleaned, and I use an abundance of straw. They will go and lie on a snow bank in the spring, and will go and lie in a water hole even when it has ice on it  $\frac{1}{2}$  inch thick. The pen is never very cold, sometimes the feed will freeze, and it never is very hot. The thermometer runs as high as 50 or 60 degrees, and as low as 15 or 20 degrees below freezing, but it bothers me badly now to make my pigs go 140 pounds at 7 months old. I have four old pens that I keep for the brood sows and the hog. I have tried all kinds of breeds of pigs with the same result. The young pigs do splendid as long as I don't put them in the stone pen. Early this spring I thought it must be the concrete floor, so I put a plank floor in and left a 3-inch space. I bought 25 pounds of sulphur, and I burnt 1 pound each day, and I left the pigs in the pen and let them inhale the smoke until it would get too strong. I would then let them out, but it made no change. Sometimes there will be one or two in a lot that will not come to the trough for two or three days, and by the time they start to eat there are others that act the same way. There are always some of them that are all drawn up, but I never had one pig to die. I have inquired and explained my case to all the leading farmers in this part of the country, and none of them ever heard of anything like it. There are three windows in the pen, eight lights in each, 10 x 12 inches—two windows in the south end and one in the north end, and three half-sized windows upstairs. It is 8 feet high from the concrete floor to joists, and the ventilator is six inches square up through the roof, and three 3-inch tile in each side, and I never let the pen get dirty enough to cause a smell."

[Our correspondent has our sincere sympathy in his trouble. His enterprise and energy and his intelligent efforts to meet the difficulties deserve a better return, and we would gladly give advice and counsel if we were sure it would prove helpful. It would perhaps be poor comfort to one who has gone to all the expense of building what, in

his judgment, was a first-class pigpen, to say that we have never favored the building of a piggyery with stone walls. We have witnessed so much of rheumatism and coughing in such quarters for pigs that it causes us to shudder when we enter a piggyery of that description; but it is there, and the best thing we can think of recommending is to put up studs on the wall sides and board closely on these, leaving an air space of 4 to 6 inches to prevent contact with the damp walls. It is a laudable ambition to have a large and well-arranged piggyery, and it would appear it ought to be possible to have such, and have it answer the best purpose. Yet in actual practice we have seen so many cases where such buildings have proved disappointing, we have largely lost faith in them, and we find that the men who are the most successful handlers of hogs—those who fit them for prize-winners—even when they have first-class buildings do not keep their best hogs in them, but generally in an orchard or grass field, with a temporary shed to sleep in and for shelter from sun or storm. This course is easily practicable in summer, but not so easily in winter. It is true that yards for exercise may be arranged so that each pen may open into them, but when snow is deep and the weather cold it is almost impossible to make the pigs take exercise. If the pens face the barnyard where there is generally more or less of straw, and where the cattle keep the snow tramped down, the pigs can generally be induced to go out for exercise, and we know no better arrangement than this for winter conditions. From the apparently feverish condition of the pigs we should judge that the feed has been of too heating a nature, probably too large a proportion of peas and buckwheat. We have an idea that much of the trouble with pigs in winter is the result of indigestion brought on by feeding too much cold, sloppy food. In very cold weather we think the food should be mixed with warm water or else fed dry, water or swill being placed within reach in a separate trough. We have seen pigs very successfully fed in winter in this way. We shall be glad to hear from any of our readers who can give helpful advice in reply to Mr. Clayton's enquiries.]

#### DAMAGED MILK GLANDS.

F. H. P., Brome, Que.:—"I have a sow that had a litter of pigs in March, which were weaned at four weeks old, and four or five weeks after weaning I noticed that one teat was enlarged, and it grew as large as a pint bowl, and was very solid, and then broke in five or six places, and at first it discharged heavy, yellow pus, and now it is milky fluid. Can you explain the cause and suggest a remedy?"

[The cause was evidently too great an accumulation of milk, which might have been prevented by letting the pigs with the sow two or three times, at intervals of two or three days, to relieve the pressure. Treatment should have been given before the trouble had advanced so far as to permanently injure the glands. The best that can be done now is to wash the part well with warm water and soap, and apply antiseptics, such as creolin, one tablespoonful to a pint of water, well shaken, or carbolic acid, 20 drops to a pint of water. Repeat two or three times at intervals of a day.]

#### PLANTAGO LANCEOLATA.

WM. ARMSTRONG, Grey Co., Ont.:—"I enclose sample of weed which has appeared in my clover field. This stalk is one of forty from the same root. Please identify it, and refer to its properties?"

[The plant sent us is English plantain (*Plantago lanceolata*), sometimes called rib grass. It has been introduced into many sections in grass and clover seed, and becomes very troublesome, although in England it is sown for sheep pasture, in which capacity it has considerable value. It is a simple perennial. Its leaves are long, ribbed, hairy, and narrowed at the base. The stems which support its seed spikes are usually about a foot high, though sometimes attain a height considerably greater. Several spikes from one to two inches long are commonly borne by each plant. It is most troublesome in meadows and pastures, while it infests lanes, roadsides and by-places. To eradicate this weed the infested fields should be broken up and followed with a hoed or cultivated crop. It will not withstand cultivation. Before buying clover or grass seed, numerous samples of it should be carefully examined with a magnifying glass, and unless free from known or unknown weed seeds it should be rejected. There is no doubt but very many of our most troublesome weeds are introduced in imported seed or that from dirty farms.]

#### COWS WITH A COUGH.

M. S., York Co., Ont.:—"I have two cows that have a slight cough, it seems to be more in their throat than on the lungs; they are in fine condition, and giving large quantities of milk. I feed pea meal and bran on cut straw along with grass. They do not bring up any phlegm when they cough. 2. Should bran be fed dry or mixed with boiling water or cold water; which is best?"

[1. The trouble may be only temporary, as the cows are thrifty. If symptoms grow more serious give each a physic of salts and ginger—2 pounds salts,  $\frac{1}{2}$  ounce ginger, dissolved in a quart of hot water, and give to each cow. After purge operates give teaspoonful of the following twice daily to each in feed: Soda bicarb., ginger, pot. nit., of each 2 ounces; nux vomica, 1 ounce; well mixed.

Blister the throat with mustard when above medicine has been used. Report us again fully as to condition. 2. When fed with pea meal it is usually fed dry. If the object is a large flow of milk it is preferable to pour boiling water with a pinch of salt on the bran, and allow to stand awhile before feeding.]

#### GROUND-HOG KILLING—PREFERENTIAL TRADE.

W. M. SHIELDS, Ontario Co., Ont.:—"1. Will you please let me know, through the columns of the ADVOCATE, methods for the destruction of ground hogs other than poison? 2. Can you tell me if the preferential tariff in favor of Great Britain is likely to cause foreign competition in agricultural implements in this country, and consequently cheapening Canadian-made machines?"

[1. The favorite methods with which we are acquainted are shooting and trapping with a strong steel trap put down a foot or so in the hole and partly secured by a little clover and securely pegged at the entrance. Smoking and drowning out have also been tried, but are very tedious plans. Carbon bisulphide, used with the precautions described on page 130, March 15th issue of the FARMER'S ADVOCATE, is a useful agent for killing these troublesome pests.

2. If British manufacturers take advantage of the opportunity thus presented by catering for the Canadian demand, it should have the effect suggested. Up to the present, large numbers of Canadian reaping machines, also plows, etc., made on this continent have been sold in England.

Since writing the above reply to query No. 1, the following testimonials for bisulphide of carbon were noticed in the *Ohio Farmer*:

"My gardens are bounded on the river side by sandy and gravelly ridges and hills. When I bought the place, two years ago, it was overrun with ground hogs that burrowed in these hillsides. A half acre of sweet corn was only a matter of two or three days' rations for them. The former owner had tried everything but the right one—shotgun, traps, poison, etc.—for their extermination. I had no time to lie around with a gun. I had no traps, and I disliked the idea of a wholesale administration of poison. As an experiment, I procured a quart of the bisulphide of carbon and proceeded as follows:

"Having closed all openings to the den but the main entrance, I saturated some soft paper with about a half ounce of the drug, and quickly thrust it as far as convenient into the den, closing the opening at once with earth. My first trial was with 38 dens. Since that I have treated as many more in the same way. No ground hog ever left a den so treated.

"I might add that the same treatment has proved equally effective on rats and many other pests. The only condition essential is that your game be confined in a comparatively air-tight enclosure with the remedy. No living thing that breathes the air can live in such condition. The fluid, on exposure to air, rapidly turns to gas which is a deadly anesthetic and produces death by asphyxiation, which is probably painless. There is no danger to the one handling it if he takes the precaution to keep it away from fire. The gas is highly explosive, and this precaution must be strictly observed. It is a valuable remedy and has a wide range of application. I have just returned this evening from making application of it to my early cabbage and cauliflowers, and late cabbage seed-beds, all badly infested by maggots. With a small dibble a hole is made four or five inches deep near the root, and about a half teaspoonful of a teaspoonful of the liquid dropped in and quickly secured by closing the opening with earth.

"Lawrence Co., Pa. I. A. T."

"I have used bisulphide of carbon in ground-hog dens with complete success. It is sure death. I used one pound can to fifteen dens. I have used three cans this spring. The druggist charges me 30 cents per can. Perhaps less would do, but these were in the clover and I wanted to be sure of them. C. H. H., Ohio."

#### EWES FAILING TO BREED.

A SUBSCRIBER, Ontario Co., Ont.:—"Out of a flock of eleven ewes bought last winter, eight proved barren, but as they are good sheep I would prefer to keep them over if they would be likely to breed again. I believe they were mated last year with a ram lamb, to which, perhaps, the fault belongs. What can be done to promote fecundity? Will the fatty condition resulting from having no lambs to suckle prevent conception again? In my neighbor's flock of twenty seven ewes, ten missed, though he had two rams. Please advise through the ADVOCATE'S next issue, and oblige."

[We would not sacrifice good, sound ewes that had missed breeding one year. We have frequently known cases where ewes that failed to breed one year produced good lambs the next year, and made extra good nurses. A yearling or older ram in moderate condition is more likely to prove sure, especially with large, fat ewes; but a good strong ram lamb is generally reliable if not overtaxed. We do not think the ewes will get too fat to breed on pasture alone. If you have suitable buildings for early lambs, we would advise breeding these ewes early, say last of August or first September. They will probably come in season earlier than ewes that have raised lambs. The ewes will then have a longer season in the fields while in lamb, and the exercise they will get will tend to bring

strong lambs, and our experience is that early lambs are best. We judge the rams in the cases mentioned were not in vigorous condition.]

FULL ADDRESS WANTED.

Will "W. C." who forwarded sample of weed kindly send us at once his full name, post office address, and two fresh specimens including roots.—Ed.

Veterinary.

MARE'S UDDER AILING.

H. S. P., Whitewood, N.-W. T.:—"Will you kindly tell me what to do for the following: Mare (aged) lost her foal last June when three days old. Mare was milked for about a month afterwards, but did not seem to go dry; is a very heavy milker. One side of her bag swelled up, and swelling gradually worked up into her thigh and broke, and has been running matter ever since. Mare is in good condition, and is due to foal again."

[Cast and secure your mare, enlarge the opening or openings from which the "matter" is running and inject the parts with the following: Perchloride of mercury, two drams; muriatic acid, two drams; methylated spirits, four ounces; water, four ounces. Mix. Inject the above solution twice, allowing three days between each time. If within reach of a veterinary surgeon I would advise you to employ him. W. A. DUNBAR, V. S., Winnipeg.]

SPLINTS ON HORSE.

THOS. H. LOWES, Yorkton:—"I purchased a three-year-old colt last spring; last week noticed that he had a splint on each front leg, also other lumps further down his legs. May have had them on his legs when I got him. Do not know of his having been strained by slipping or otherwise. Would you advise leaving them alone, or what treatment would you recommend?"

[Blister the enlargements with the following ointment: Bismuth of mercury, one dram; cantharides (pulv.), two drams; vaseline, two ounces. Repeat in two weeks. W. A. DUNBAR, V. S.]

SHOWS AND SHOWING.

Summer and Autumn Exhibitions.

Table listing various exhibitions with dates and locations, including Winnipeg Industrial, Portage la Prairie, Holland, etc.

Canada's Victorian Era Exposition.

Great will be the show and great will be the occasion of Toronto's nineteenth annual exhibition, to be held this year from August 30th to Sept. 11th, under the style and title of Canada's Great Victorian Era Exposition and Industrial Fair.

Not only in the matter of awards have the Toronto Exhibition directors been especially mindful of exhibitors

generally, but of the interests of live stock exhibitors they have proved themselves particularly careful. Incurring an expenditure of thousands of dollars, they have ordered the construction of entirely new piggins, the making of an entirely new and capacious horse ring for judging and showing, and the erection of two new stables in place of those destroyed by fire.

The premium list, which is pretty well the same as in previous years, except wherein changes have been made with a view of encouraging breeds coming to the front, is now being issued, but as the demand is always enormous, intending exhibitors should lose no time in applying for copies.

What with extra prizes, attractions, chief of which will be as near as possible an exact reproduction of the great Diamond Jubilee procession in London, Eng., extensive improvements, the meeting of the British Association, the celebration of Cabot's landing, and other incidental features, Toronto's Exhibition of 1897 promises to far exceed that of any previous year.

Western Fair Improvements.

As indicated in our last issue, the Western Fair Board of London, Ont., are doing their utmost to supply every reasonable need of exhibitors in accommodation for the coming exhibition. The lessons from last year's show are being observed in a practical manner.

For cattle exhibitors considerable is being done. The feed mangers are being widened and lowered in front. The sleeping berths have been lowered and ladders erected so that they are made easy of access and more comfortable.

These improvements are now in progress and will be completed long before they are needed, so that every detail will have received due attention.

The Central Canada Exhibition.

The Central Canada Exhibition Association of Ottawa, Ont., established a record last year in their liberal manner of dealing with exhibitors and in their splendid equipment in the way of stabling, etc.

The special attractions will be especially fine this year, which will afford exhibitors, attendants and visitors a pleasing and live entertainment during the afternoons and evenings. The best procurable specialties are being secured from New York and other leading centers.

THE BOOK TABLE.

"Illustrated London."

The volume bearing the above title does not relate to London, Eng., but to a city relatively no less important, situated in the midst of one of the choicest agricultural districts of which the world can boast—Western Ontario—on the Thames River, and in the center of a network of railways.

MARKETS.

Canadian Live Stock Export.

The following are the live stock exports for the weeks ending Wednesday, June 30th and July 7th, as prepared by F. Bickerdike, of the Live Stock Exchange, Montreal:

Table showing live stock exports for various locations like London, Liverpool, Manchester, etc., with cattle and sheep counts.

Horse Export Regulations.

An important Order-in-Council has been passed making the following rules regulating the shipment of horses from Canada to Europe:

- (1) Horses shall not be taken on board until the loading of the cargo has been completed, unless the consent of the inspector to do otherwise in writing is first obtained.
(2) Stalls for horses shall not be less than two feet six inches wide in the clear for horses weighing 1,200 pounds or less.

Toronto Markets.

The market was brisk and spirited in the early hours, but an increased supply caused the market to ease off for the rest of the day. Over 1,500 cattle, 1,700 sheep, 65 calves, and 1,500 hogs passed the weigh scales to-day.

Butchers' Cattle.—Butchers' cattle were in demand; for prime stall-fed, \$3.50 to \$3.75 per cwt.; ruling figure was 34c. per lb.; this may be considered as an advance of 10c. over last week's prices.

**Bulls.**—The export demand still holds good; heavy good stock bulls, \$3.50 to \$4.25; light bulls, good quality, \$3 to \$3.50 per cwt.

**Stockers.**—Two carloads went through for Buffalo; dull trade. Prices ruled 2 1/2c. to 3c.; a few only touched 3 1/2c. per lb.

**Feeders.**—None on offer to-day; not many wanted. Prices nominal, at 3 1/2c. per lb.

**Calves.**—In fair supply; choice veals wanted. Prices steady, at \$2 to \$7, according to size and quality.

**Sheep.**—Export sheep are weaker, the two principal operators not on the market. Prices ruled weaker, at 3c. to 3 1/2c. per lb.

**Lambs.**—Nothing touched \$1; best price recorded was \$3.90; the range averaged \$2 each.

**Milk Cows and Springers.**—Choice cows in demand. Prices rule from \$20 to \$38 per head.

**Hogs.**—Choice selections of bacon hogs ruled firmer, at \$5.60 weighed off cars. Thick fat, \$1.75 per cwt.; light fat, \$5.25 to \$5.50. Sows, \$3.25 to \$3.50. Stags, \$2 to \$2.25.

**Dressed Hogs.**—Receipts light; choice weights in farmers' loads, \$6.75 to \$7; others, \$5 to \$6.50. The exports of bacon last week were phenomenal and for the month of June were 1,388,546 lbs., valued at \$153,526, against 2,094,890 lbs., valued at \$156,799, for June, 1896. Last month, 101,773 lbs. of hams were exported, of a value of \$16,443, against 126,327 lbs., valued at \$11,693, in June, 1896.

**Receipts of grain on the street market showed an increase over last week.**

**Wheat** easy, 300 bushels selling at 70c.

**Oats** firmer, three loads selling at 2 1/2c. to 2 3/4c. per bushel.

**Hay.**—Conditions are reversed this year; a great shortage of hay is reported from Quebec and the Ottawa Valley; all the hay was winter-killed, and they are drawing hay from Ontario. Our supply is not large, many districts report the crop uneven; twelve loads in, at \$9 to \$10 per ton.

**Straw** in good demand, \$8 to \$8.50 per ton.

**Wool.**—The wool exports from Toronto have been very large, being about ten times those of last year to date. The shipments in June, 1897, were 943,963 lbs., valued at \$131,490, while for June, 1896, they were only 93,243 lbs., valued at \$18,517. Mr. Robert Berryman and Messrs. Long & Bisley, wool dealers, of Hamilton, in the last two weeks have exported 500,000 lbs. of wool, principally to Philadelphia, U. S.

**Hides.**—The time when shipments to the United States can be made with safety is now closed; under the new tariff a duty of 20 per cent. is to be imposed on hides and calfskins. Sheepskins will be subject to a duty computed on the quantity of wool the skin will pull, and that will be about \$1 for a full-grown skin. The receipts are only moderate, and the local trade is taking all that are offered at 1c. advance; are now paying 3 1/2c. for No. 1 hides, 7 1/2c. for No. 2, 6 1/2c. for No. 3.

**Chatty Stock Letter from Chicago.**  
(BY OUR SPECIAL CORRESPONDENT.)

Following are the current and comparative prices for the various grades of live stock:

CATTLE.	Present		Two weeks ago		1896.		1895.	
	Range of Prices							
1500 lbs. up.....	\$4 40 to 5 15	\$5 15	\$4 50	\$6 00	\$6 00	\$6 00	\$6 00	
1350 @ 1500.....	4 00 to 5 20	5 20	4 60	5 85	5 85	5 85	5 85	
1200 @ 1350.....	3 85 to 5 05	5 20	4 50	5 75	5 75	5 75	5 75	
1050 @ 1200.....	3 75 to 4 80	5 00	4 50	5 50	5 50	5 50	5 50	
900 @ 1050.....	3 60 to 4 70	4 75	4 35	5 35	5 35	5 35	5 35	
Stallions.....	4 30 to 4 60	4 75	4 40	5 65	5 65	5 65	5 65	
Stks. and F.....	3 50 to 4 30	4 20	3 75	5 35	5 35	5 35	5 35	
Fat cows and heifers.....	3 25 to 4 40	4 25	4 35	4 50	4 50	4 50	4 50	
Canning cows.....	1 75 to 2 65	2 60	2 25	2 50	2 50	2 50	2 50	
Bulls.....	2 25 to 3 80	3 75	3 60	3 75	3 75	3 75	3 75	
Calves.....	3 50 to 7 00	6 25	5 30	5 50	5 50	5 50	5 50	
Texas steers.....	3 00 to 4 35	4 40	3 85	4 75	4 75	4 75	4 75	
Texas C. & H.....	2 25 to 3 25	2 89	2 55	3 85	3 85	3 85	3 85	

The excessively hot weather is cutting down the demand for meats. There are not many fancy cattle, but more beefing bullocks than a while ago. The fly season was very late in starting, and made it easier than usual for cattle to get fat. Hog receipts are exceeding all expectations and are breaking some of the summer records. Hogs are making money for feeders, and there is no shortage of young pigs, and the prospects are that there will be a liberal business done by feeders in that line. The corn prospects are so far very good, and there is a good deal of two-year-old corn still on hand. The larger livestock markets of the country show in the main a gain in live stock business this year over last.

Receipts the first six months of 1897 at four markets compare as follows:

Years.	CATTLE.			
	Chicago.	Kansas City.	Omaha.	St. Louis.
1897—	1,174,410	712,610	321,819	318,963
1896—	1,234,916	637,041	218,898	317,927
Increase	60,506	105,569	105,921	1,036
Decrease				

Years.	HOGS.			
	Chicago.	Kansas City.	Omaha.	St. Louis.
1897—	4,097,082	1,742,406	792,013	863,512
1896—	3,339,466	1,423,595	621,098	855,989
Increase	257,612	318,811	170,915	7,523
Decrease				

Years.	SHEEP.			
	Chicago.	Kansas City.	Omaha.	St. Louis.
1897—	1,637,549	639,385	352,897	351,635
1896—	1,743,769	506,580	140,431	378,046
Increase	106,220	132,805	212,466	26,411
Decrease				

The July cattle receipts are now running about the same as a year ago.

July receipts at Chicago for the last nine years were as follows:

Receipts.	Cattle.	Hogs.	Sheep.
July, 1896.....	224,919	499,964	279,130
July, 1895.....	225,559	382,398	278,898
July, 1894.....	153,664	379,483	131,301
July, 1893.....	263,747	519,507	230,133
July, 1892.....	303,315	488,820	158,942
July, 1891.....	248,983	468,497	169,793
July, 1890.....	328,290	612,355	143,958
July, 1889.....	272,541	414,696	133,744
July, 1888.....	205,814	331,379	96,740

\* Railroad strike first two weeks of month curtailed receipts somewhat.

Several of the large slaughterers and the cattle exporters have lately been relying upon cattle contracted at country feeding points, chiefly at distilleries. There were a good many cattle contracted in Kentucky. These cattle, however, have now been pretty well forwarded. The cattle buyers, however, are feeling less anxious about filling supplies than they did a month or so ago. They are not sure about next year, but they feel pretty well satisfied that with all the raking and scraping that stock feeders have done will insure a plentiful supply of beef cattle for the next few months at least. There are some of the large operators who profess to believe that the supplies of ripe cattle, or at least good beefy bullocks,

will be very large. There has certainly been a good deal of change in sentiment among those who recently talked of and believed in a large cattle shortage. As it is, however, it would seem that they are taking a near-sighted view and not making due allowance for the energetic way in which cattle have been brought to the corn belt from Canada, the Eastern, Southern, and Western States. Canada may or may not have a plentiful supply of young cattle to take the place of those sold to United States feeders and breeders, but it is certain that the other sections referred to have no surplus of young stock. A report from Texas says:

"Cattle feeders all made some money last season, and now that plenty of feed is assured for the coming season they will try their hand again. Already there is a good demand for steers suitable for the feed pens, and unless fall more cattle will be fed in Texas the coming season than during any other year in the history of the State. The only thing that may stand in the way of increasing the volume of business in this line is the scarcity of cattle."

Not many desirable stock cattle have come lately. Farmers are selling them without trouble at home.

It sometimes happens that a farmer will refuse to sell his young cattle to a neighbor, pay freight and charges on them to market, when the neighbor can afford to buy them and pay freight back again. The moral of this is obvious.

Western grass sheep were received from Washington, Oregon and Wyoming, selling at \$3 to \$3.35.

Heavy sheep are still almost unsalable, for there is no export demand.

Word comes from the East as follows: The heavy sheep shipments from Boston have ceased for the time being, partly because the man who has been shipping them has lost enough money and partly because there is a scarcity of sheep fit for export.

The horse market is very quiet, but not unreasonably so. Recent retail horse sales were as follows:

B g, 6 yrs., 1,400 lbs.....	\$ 75 00
B g, 6 yrs., 1,300 lbs.....	107 50
B g, 6 yrs., 1,300 lbs.....	107 50
Gr team, 7 yrs., 3,100 lbs.....	300 00
Gr team, 6 yrs., 3,000 lbs.....	225 00
Gr g, 5 yrs., 1,400 lbs.....	100 00
B team, 6 yrs., 2,500 lbs.....	145 00
B m, 9 yrs., 1,600 lbs.....	92 50
B team, 6 yrs., 3,100 lbs.....	250 00
Sr h, 6 yrs., 1,500 lbs., and br h, 6 yrs., 1,500 lbs.....	225 00
Gr h, 5 yrs., 1,300 lbs.....	95 00
B m, 5 yrs., 1,150 lbs.....	50 00
Sr m, 6 yrs., 1,400 lbs.....	70 00
B m, 5 yrs., 1,300 lbs.....	80 00
B g, 5 yrs., 1,250 lbs.....	75 00
B g, 6 yrs., 1,300 lbs.....	90 00
B m, 7 yrs., 1,100 lbs.....	65 00
B m, 7 yrs., 1,100 lbs.....	65 00
Rr m, 6 yrs., 1,150 lbs.....	65 00
Gr g, 5 yrs., 1,250 lbs.....	80 00
Do m, 5 yrs., 1,250 lbs.....	80 00
Ch m, 7 yrs., 900 lbs.....	70 00
Sr m, 6 yrs., 1,100 lbs.....	60 00
B g, 6 yrs., 1,150 lbs.....	75 00
B farm team, 6 yrs., 2,150 lbs.....	120 00
B g, 6 yrs., 1,050 lbs., trotter.....	460 00
R m, 5 yrs., 1,050 lbs., trotter.....	175 00
B team, 6 yrs., 2,900 lbs.....	250 00
R g, 5 yrs., 1,250 lbs.....	90 00
Gr g, 6 yrs., 1,300 lbs.....	90 00
B g, 6 yrs., 1,050 lbs., plug.....	45 00
Rl team, 6 yrs., 2,600 lbs.....	150 00
R g, 7 yrs., 1,350 lbs.....	70 00
R g, 6 yrs., 1,400 lbs.....	75 00
R g, 6 yrs., 1,400 lbs.....	75 00
R m, 5 yrs., 1,300 lbs.....	235 00
R m, 7 yrs., 1,500 lbs.....	95 00
Gr m, 6 yrs., 1,300 lbs.....	85 00

**Montreal Markets.**

**Export Cattle.**—The almost entire absence of anything like good export cattle in this market prevents a reasonably accurate quotation; and although many are offered and called export cattle, few really come under that heading, as far as quality is concerned. A few of the best are culled out from time to time, but it is only when shippers are cornered to fill gap ends of space. For these the prevailing figure has been from 4 1/2c. to 4 3/4c. per lb., the outside price being for extra nice ones.

**Butchers' Cattle.**—There is much of a humdrum nature to this market, the scarcity of good, fairly fat beefs being also apparent here. Butchers have been fairly well cleaned up each day. This has the effect of keeping prices steadier and without any great movement one way or the other. Choice stock makes from 4 1/2c. to 4 3/4c.; very good, 3 1/2c. to 4 1/4c., and down to 2 1/2c. for common beasts.

**Export Sheep.**—This stock has been in good demand, and supplies not being heavy, fair prices are being paid, considering the poor nature of the British sheep markets. Values range from 3 1/2c. to 3 3/4c. per lb.; butchers' stock, 2 1/2c. to 3 1/4c.

**Lambs.**—Quite a number offering and market easier, at \$2.50 to \$3.50.

**Calves steady,** at \$1.50 to \$5 each.

**Live Hogs.**—A slight slump took place in this line this week, choice lots falling off about 1c. per lb., and this on a market where the offerings were on the light side; 5c. off cars.

**Hides and Skins.**—The vagueness of the United States hide situation—this at least is what dealers lay it to—has caused a decline in beef hides here of 1c. per lb. There has been no change of a local nature to cause this drop, as hides are moving freely from dealers to tanners. Quotations now stand: Green salted hides—No. 1, 7c. per lb.; No. 2, 6c.; No. 3, 5c.; heavy salted hides—No. 1, 7c. per lb.; No. 2, 6c.; No. 3, 5c.; Country calfskins—No. 1, 7c. per lb.; No. 2, 5c.; Lamb skins, 25c. each; cllps, 25c. each.

**Live Stock Shipments.**—As will be seen by the following table, there has been quite an increase in shipments of cattle this season over that of any other date; in fact, it is the banner year to date. Sheep and horses have, however, declined not a little when the period (two months) is considered. Following are the shipments to June 31st, with comparative figures from 1893.

Date.	Cattle.	Sheep.	Horses.
1897—	37,011	6,566	3,032
1896—	28,780	9,066	4,715
1895—	29,830	18,720	4,440
1894—	29,090	16,055	1,521
1893—	33,387	218	572

**Horse Markets.**

Quite a little business has been transacted since the Jubilee festivities have passed, the shipments for the first week after being the heaviest week of the season to date—507. Locally the markets have been good for good horses, which are unfortunately rather scarce. It is rather remarkable also that most of the buyers are making their consignments up of heavy drafts very few taking drivers, these being mostly picked up for the city trade. We quote heavy blocks, \$1 to \$125; trammers and "bussers," \$75 to \$90; drivers, \$75 to \$125.

**The British Markets.**

Heavy supplies, combined with very hot weather, has had the effect of forcing prices back another 1c. per lb. for Canadian cattle and sheep, and 1c. per lb. for United States beefs. Choice States steers sold for 10 1/2c. per lb., choice Canadian, 1c. per lb. less; sheep, 10c. per lb. These quotations are per pound of dressed beef, including the bone.



**THE CASTING AWAY OF MRS. LECKS AND MRS. ALESHINE.**

(Continued from page 301.)

I now took a position a little in advance of my companions, and as I swam slowly they were easily able to keep up with me. Mrs. Aleshine, being so stout, floated much higher out of the water than either Mrs. Lecks or I, and this permitted her to use her oar with a great deal of freedom. Sometimes she would give such a vigorous brush to the water that she would turn herself almost entirely around, but, after a little practice, she learned to avoid undue efforts of this kind.

How far off the steamer might be I had no idea, for I was not accustomed to judging distances at sea; but I believed that if we were careful of our strength, and if the ocean continued as smooth as it now was, we might eventually reach the vessel, provided she were yet afloat.

"After you are fairly in the water," said Mrs. Aleshine, as she swept along, although without the velocity which that phrase usually implies, "it isn't half so bad as I thought it would be. For one thing, it don't feel a bit salt, although I must say it tasted horribly that way when I first went into it."

"You didn't expect to find pickle-bine, did you?" said Mrs. Lecks. "Through if it was, I suppose we could float on it."

"And as to being cold," said Mrs. Aleshine, "the part of me that's in is actually more comfortable than that which is out."

"There's one thing I would have been afraid of," said Mrs. Lecks, "if we hadn't made preparation for it, and that's sharks."

"Preparations!" I exclaimed. "How in the world did you prepare for sharks?"

"Easy enough," said Mrs. Lecks. "When we went down into our room to get ready to go away in the boats we both put on black stockings. I've read that sharks never bite colored people, although if they see a white man in the water they'll snap him up as quick as lightnin'; and black stockings was the nearest we could come to it. You see, I thought as like as not we'd have some sort of an upset before we got through."

"It's a great comfort," remarked Mrs. Aleshine, "and I'm very glad you thought of it, Mrs. Lecks. After this I shall make it a rule: Black stockings for sharks."

"I suppose in your case," said Mrs. Lecks, addressing me, "dark trousers will do as well."

To which I answered that I sincerely hoped they would.

"Another thing I'm thankful for," said Mrs. Aleshine, "is that I thought to put on a flannel skirt."

"And what's the good of it," said Mrs. Lecks, "when it's soppin' wet?"

"Flannel's flannel," replied her friend, "whether it's wet or dry; and if you had the rheumatism as much as I have, you'd know it."

To this Mrs. Lecks replied with a sniff, and asked me how soon I thought we would get sight of the ship, for if we were going the wrong way, and had to turn round and go back, it would certainly be very provoking.

I threw a rapid glance around the whole circle of the horizon, and was rejoiced to see the dark spot which I had before discovered; and as we rose again my companions saw it, and were greatly satisfied.

"Now, then," said Mrs. Aleshine, "it seems as if there was something to work for," and she began to sweep her oar with great vigor.

"If you want to tire yourself out before you get there, Barbry Aleshine," said Mrs. Lecks, "you'd better go on in that way. Now, what I advise is that we stop rowin' altogether and have something to eat, for I'm sure we need it to keep up our strength."

"Eat!" I cried. "What are you going to eat? Do you expect to catch fish?"

"And eat 'em raw?" said Mrs. Lecks. "I should think not. But do you suppose, Mr. Craig, that Mrs. Aleshine and me would go off and leave that ship without takin' somethin' to eat by the way? Let's all gather here in a bunch, and see what sort of a meal we can make. And now, Barbry Aleshine, if you lay your oar down there on the water, I recommend you to tie it to one of your bonnet-strings, or it'll be floatin' away, and you won't get it again."

As she said this, Mrs. Lecks put her right hand down into the water, and fumbled about in search of a pocket. I could not but smile as I thought of the condition of food when, for an hour or more, it had been a couple of feet under the surface of the ocean; but my ideas on the subject were entirely changed when I saw Mrs. Lecks hold up in the air two German sausages, and shake the briny drops from their smooth and glittering surfaces.

"There's nothin'," she said, "like sausages for shipwreck and that kind of thing. They're very sustainin', and bein' covered with a tight skin, water can't get at 'em, no matter how you carry 'em. I wouldn't bring these out in the boat, because havin' the beans we might as well eat them. Have you a knife about you, Mr. Craig?"

I produced a dripping jackknife, and after the open blade had been waved in the air to dry it a little, Mrs. Lecks proceeded to divide one of the sausages, handing the other to me to hold meanwhile.

"Now don't go eatin' sausages without bread, if you don't want 'em to give you dyspepsy," said Mrs. Aleshine, who was tugging at a submarine pocket.

"I'm very much afraid your bread is all soaked," said Mrs. Lecks.

To which her friend replied that that remained to be seen, and forthwith produced with a splash a glass preserve-jar with a metal top.

"I saw this, nearly empty, as I looked into the ship's pantry, and I stuffed into it all the soft biscuits it would hold. There was some sort of jam left at the bottom, so that the one who gets the last biscuit will have somethin' of a little spread on it. And now, Mrs. Lecks," she continued triumphantly, as she unscrewed the top, "that rubber ring has kept 'em as dry as chips. I'm mighty glad of it, for I had trouble enough gettin' this jar into my pocket, and gettin' it out, too, for that matter."

Floating thus, with our hands and shoulders above the water, we made a very good meal from the sausages and soft biscuit.

"Barbry Aleshine," said Mrs. Lecks, as her friend proceeded to cut the second sausage, "don't you lay that knife down when you've done with it, as if it was an oar; for if you do it'll sink, as like as not, about six miles. I've read that the ocean is as deep as that in some places."

"Goodness gracious me!" exclaimed Mrs. Aleshine. "I hope we are not over one of them deep spots."

"There's no knowin'," said Mrs. Lecks, "but if it's more comfortin' to think it's shallower, we'll make up our minds that way. Now then," she continued, "we'll finish off this meal with a little somethin' to drink. I'm not given to takin' spirits, but I never travel without a little whieky, ready mixed with water, to take if it should be needed."

So saying, she produced from one of her pockets a whieky flask tightly corked, and of its contents we each took a sip.

Mrs. Aleshine remarking that, leaving out being chilled or colicky, we were never likely to need it more than now.

Thus refreshed and strengthened, Mrs. Lecks and Mrs. Aleshine took up their oars, while I swam slightly in advance.

When, with occasional intermissions of rest, and a good deal of desultory conversation, we had swept and swam for about an hour, Mrs. Lecks suddenly exclaimed: "I can see that thing ever so much plainer now, and I don't believe it's a ship at all. To me it looks like bushes."

"You're mighty long-sighted without your specs," said Mrs. Aleshine, "and I'm not sure but what you're right."

"As sure as I'm standin' here," said Mrs. Lecks, who although she could not read without spectacles, had remarkably good sight at long range, "them is trees and bushes that I see before me, though they do seem to be growin' right out of the water."

"There's an island under them; you may be sure of that!" I cried. "And isn't this ever so much better than a sinking ship?"

"I'm not so sure about that," said Mrs. Aleshine. "I'm used to the ship, and as long as it didn't sink I'd prefer it. There's plenty to eat on board of it, and good beds to sleep on, which is more than can be expected on a little bushy place like that ahead of us. But then, the ship might sink all of a sudden, beds, vittles, and all."

"Do you suppose that is the island the other boats went to?" asked Mrs. Lecks.

"This question I had already asked of myself. I had been told that the island to which the captain intended to take his boats lay about thirty miles south of the point where we left the steamer. Now I new very well that we had not come thirty miles, and had reason to believe, moreover, that the greater part of the progress we had made had been towards the north. It was not at all probable that the position of this island was unknown to our captain; and it must, therefore, have been considered by him as an unsuitable place for the landing of his passengers."

But, whatever its disadvantages, I was most wildly desirous to reach it; more so than either of my companions.

"I do not believe," I said, in answer to Mrs. Lecks, "that that is the island to which the captain would have taken us; but, whatever it is, it is dry land, and we must get there as soon as we can."

"That's true," said Mrs. Aleshine, "for I'd like to have ground nearer to my feet than six miles, and if we don't find anything to eat and any place to sleep when we get there, it's no more than can be said of where we are now."

"You're too particular, Barb'ry Aleshine," said Mrs. Lecks, "about your comforts. If you find the ground too hard to sleep on when you get there, you can put on your life-preserver, and go to bed in the water."

"Very good," said Mrs. Aleshine; "and if these islands are made of coral, as I've heard they was, and if they're as full of small plants as some coral I've got at home, you'll be glad to take a berth by me, Mrs. Lecks."

I counseled my companions to follow me as rapidly as possible, and we all pushed vigorously forward. When we had approached near enough to the island to see what sort of place it really was, we perceived that it was a low-lying spot, apparently covered with verdure, and surrounded, as far as we could see as we rose on the swells, by a rocky reef, against which a tolerably high surf was running.

We swam and paddle for a long time, and still the surf rolled menacingly on the rocks before us. We were now as close to the island as we could approach with safety, and I determined to circumnavigate it, if necessary, before I would attempt, with these two women, to land upon that jagged reef. At last we perceived at no great distance before us, a spot where there seemed to be no breakers; and when we reached it we found, to our unutterable delight, that there was smooth water flowing through a wide opening in the reef.

I swam into this smooth water, followed close by Mrs. Lecks and Mrs. Aleshine, who managed to paddle after me; and they were as much astonished as I was when, just after making the slight turn, we found stretched across the narrow passage a great iron bar about eight or ten inches above the water. A little farther on, and two or three feet above the water, another iron bar extended from one rocky wall to the other. Without uttering a word, I examined the lower bar, and found one end of it fastened by means of a huge padlock to a great staple driven into the rock. The lock was securely wrapped in what appeared to be tarred canvas. A staple through an eye-hole in the bar secured the other end of it to the rocks.

"These bars were put here," I exclaimed, "to keep out boats, wheth'r at high or low water. You see they can only be thrown out of the way by taking off the padlocks."

"They won't keep us out," said Mrs. Lecks, "for we can duck under. I suppose whoever put 'em here didn't expect anybody to arrive on life-preservers."

PART II.

Adopting Mrs. Lecks' suggestion, I "ducked" my head under the bar, and passed to the other side of it. Mrs. Lecks, with but little trouble, followed my example; but Mrs. Aleshine found it impossible to get herself under the bar. In whatever manner she made the attempt, her head or her shoulders were sure to bump and arrest her progress.

"Now, Barb'ry Aleshine," said Mrs. Lecks, who had been watching her, "if you ever want to get out of this salt water you've got to make up your mind to take some of it into your mouth and into your eyes; that is, if you don't keep 'em shut. Get yourself as close to that bar as you can, and I'll come and put you under."

So saying, Mrs. Lecks returned to the other side of the bar, and having made Mrs. Aleshine bow down her head and close her eyes and mouth, she placed both hands upon her companion's broad shoulders and threw as much weight as possible upon them. Mrs. Aleshine almost disappeared beneath the water, but she came up sputtering and blinking on the other side of the bar, where she was quickly joined by Mrs. Lecks.

"Merciful me!" exclaimed Mrs. Aleshine, wiping her wet face with her still wetter sleeve, "I never supposed the heat there would be up to such tricks as makin' us do that!"

"I had waited to give any assistance that might be required, and, while doing so, had discovered another bar under the water, which proved that entrance at almost any stage of the tide had been guarded against. Warning my companions not to strike their feet against this submerged bar, we paddled and pushed ourselves around the turn in the rocky passage; and the first thing that arrested our attention as we gazed across it was a little wharf or landing-stage, almost opposite to us."

"As sure as I stand here," exclaimed Mrs. Lecks, who never seemed to forget her upright position, "somebody lives in this place!"

"And it isn't a stickery coral island, either," cried Mrs. Aleshine, "for that sand's as smooth as any I ever saw."

"Whoever does live here?" resumed Mrs. Lecks, "has got to take us in, whether they like it or not; and the sooner we get over there the better."

I told the two women that I could easily tow them across this narrow piece of water; and instructing Mrs. Lecks to take hold of the tail of my coat, while Mrs. Aleshine grasped her companion's dress, I began to swim slowly towards the beach, towing my companions behind me.

"Goodness! gracious me!" suddenly exclaimed Mrs. Aleshine, with a great bounce and splash, "look at the fishes!"

"Now, don't jerk my skeert off on account of the fishes," said Mrs. Lecks. "I expect there was just as many outside, though we couldn't see 'em. But I must say that this water looks as if it had been boiled and filtered."

I made for the little wharf, from which steps came down into the water, and as soon as we reached it we all clambered rapidly up, and stood dripping upon the narrow platform, stamping our feet and shaking our clothes.

"Do you see that house?" said Mrs. Lecks. "That's where they live, and I wonder which way we must go to get there."

Leaving the wharf, we soon found a broad path through the bushes, and in a few moments reached a wide, open space, in which stood a handsome, modern-built house. It was constructed after the fashion of tropical houses belonging to Europeans, with jalousied porches and shaded balconies; the grounds about it were neatly laid out, and behind it was a walled inclosure, probably a garden.

"Upon my word," exclaimed Mrs. Aleshine, "I'd like to be less drippin' before I make a call on genteel folks!"

"Genteel folks!" exclaimed Mrs. Lecks indignantly. "If you're too proud to go in as you are, Barb'ry Aleshine, you can go set in the sun till you're dry. As for me, I'm goin' to ask for the lady of the house, and if she don't like me she can lump me, so long as she gives me somethin' to eat and a dry bed to get into."

Mrs. Lecks walked boldly up to the front door and plied the knocker, stepping back immediately, so that she might not drip too much water on the porch.

"When they come," she said, "we'll ask 'em to let us in the back way, so that we shan't slop up their floors any more than we can help."

We waited for a couple of minutes, and then I, as the member of the party who dripped the least, went up on the porch and knocked again.

"It's my belief they're not at home," said Mrs. Lecks, after we had waited some time longer, "but perhaps we'll find some of the servants in;" and she led the way to the back part of the house.

As we passed the side of the mansion I noticed that all the window-shutters were closed, and my growing belief that the place was deserted became a conviction after we had knocked several times at a door at the back of the building without receiving any answer.

"Well, they're all gone out, that's certain!" said Mrs. Lecks.

"Yes, and they barred up the entrance to the island when they left," I added.

"I wonder if there's another house in the neighborhood?" asked Mrs. Aleshine.

"I don't believe," I said, "that the neighborhood is very thickly settled; but if you will wait here a few minutes, I will run around this wall and see what there is beyond. I may find the huts of some natives or workpeople."

I followed a path by the side of the garden wall, but when I reached the end of the enclosure I could see nothing before me but jungle, and I began to think that this was probably a very small island, and that the only one on it. I returned and reported this belief to my companions.

Now that Mrs. Aleshine had no fear of appearing in an untidy condition before "genteel folks," her manner changed very much. "If the family has gone into the country," said she, "or whatever else they've done, I want to get into this house as soon as I can. I expect we can find something to eat. At any rate we can get ourselves dry, and lay down somewhere to rest, for not a wink has one of us slept since night before last."

"I should think," said Mrs. Lecks, addressing me, "that if you could manage to climb up to them second-story windows, you might find one of them that you could get in, and then come down and open the door for us. Everybody is likely to forget to fasten some of the windows on the upper floors. I know it isn't right to force our way into other people's houses, but there's nothin' else to be done, and there's no need of our talkin' about it."

I agreed with her perfectly, and taking off my coat and shoes I climbed up one of the columns of the veranda, and got upon its roof. I walked along it and tried all the shutters, and I soon came to one in which some of the movable slats had been broken. Thrusting my hand and arm through the aperture, I easily pushed the bolt aside, raised the sash, and entered. I found myself in a small hall at the head of a flight of stairs. Down these I hurried, and, groping my way through the semi-darkness of the lower story, I reached a side door. This was fastened by two bolts and a bar, and I quickly had it open.

Stepping outside, I called Mrs. Lecks and Mrs. Aleshine. "Well," said the latter, "I'm sure I'll be glad to get in, and as we've squeezed most of the water out of our clothes we won't make so much of a mess, after all."

"We now entered, and I opened one of the shutters. "Let's go right into the kitchen," said Mrs. Lecks, "and make a fire. That's the first thing to do."

But Mrs. Lecks soon discovered that this mansion was very different from a country dwelling in one of our Middle States. There were no stairs leading to a lower floor, and the darkened rooms into which my companions peered were certainly not used for culinary purposes.

In the meantime I had gone out of the door by which we had entered, and soon discovered, on the other side of the house, a small building with a chimney to it, which I felt sure must be the kitchen. The door and shutters were fastened, but before making any attempt to open them, I returned to announce my discovery.

"Door locked, is it?" said Mrs. Aleshine. "Just wait a minute. She then disappeared, but in a very short time came out, carrying a bunch of large keys.

"It's always the way," said she, as the two followed me round the back of the house, "when people shut up a house and leave it, to put all the door-keys in the back corner of some drawer in the hall, and to take only the front-door key with them. So, you see, I knew just where to go for these."

"It's a poor hen," said Mrs. Lecks, "that begins to cackle when she's goin' to her nest; the wise ones wait till they're comin' away. Now, we'll see if one of them keys fit."

Greatly to the triumph of Mrs. Aleshine, the second or third key I tried unlocked the door. Entering, we found ourselves in a good-sized kitchen, with a great fireplace at one end of it. A door opened from the room into a shed where there was a pile of dry twigs and firewood.

"Let's have a fire as quick as we can," said Mrs. Lecks, "for since I went into that shut-up house I've been chilled to the bones."

"That's so," said Mrs. Aleshine, "and now I know how a fish keeps comfortable in the water, and how dreadfully wet and flabby it must feel when it's taken out."

I brought in a quantity of wood and kindling, and finding matches in a tin box on the wall, I went to work to make a fire, and was soon rewarded by a crackling blaze. Turning around, I was amazed at the actions of Mrs. Lecks and Mrs. Aleshine. I had expected to see them standing shivering behind me, waiting for the fire to be made; but, instead of that, they were moving rapidly here and there, saying not a word, but going as straight to cupboard, closet, and pantry as the hound follows the track of the hare. I gazed on them with delight while one filled a kettle from a little pump in the corner which brought water from a cistern, and the other appeared from the pantry, carrying a tea-caddy and a tin biscuit-box.

"Now, then," said Mrs. Lecks, hanging the kettle on a crane over the fire, and drawing up a chair, "by the time we've got a little dried off, the kettle will bile, and we'll have some hot tea; and then the best thing to do is to go to bed."

"We'll take time to have a bite first," said Mrs. Aleshine, "for I was never so near famished in my life. I brought out a box nearly full of biscuits, and there's sardines in this, Mr. Craig, which you can easy open with your knife."

As soon as the kettle began to simmer, up jumped Mrs. Aleshine. A sugar-bowl and some cups were placed upon a table, and in a short time we were cheered and invigorated by hot tea, biscuits, and sardines.

"This isn't much of a meal," said Mrs. Aleshine apologetically, "but there's no time to cook nothin', and the sooner we get off our wet things and find some beds, the better."

"If I can once get into bed," said Mrs. Lecks, "all I ask is that the family will not come back till I have had a good long nap. After that they can do what they please."

[TO BE CONTINUED.]

The Woodpecker.

There are several species of the woodpecker to be found scattered throughout Canada, the most common of which is the red-headed variety.

Most of us have heard the familiar "tap, tap," which announces their proximity to us when walking through the orchards and woods. Looking up carefully we see a small hole which the bird appears to be enlarging. It is on this account the farmers are so suspicious of them, thinking they are injuring the tree, and whenever they find holes in the bark it is taken for granted that the damage has been done by woodpeckers.

It has, however, been ascertained by careful observation that they rarely leave the smallest mark on a sound tree, but searching for one affected by borers and other injurious insects, they set to work in a most methodical manner to devour the larvæ, and seldom fly away till they are all consumed. Sometimes the holes originally made by the borers become infested with colonies of ants, which will enlarge the cavities to suit their numerous families. These in their turn are attacked by the woodpecker, and meet the self-same fate as their predecessors.

Ants are particularly injurious to timber: they pitch on the smallest hole in a tree, and continue to enlarge it to accommodate their ever-increasing colony until the whole trunk is literally honeycombed by them. The woodpecker is the only bird that can rid the tree of these pests.

Their tongues and beaks are especially adapted to the work of digging them out of their holes, and by their indefatigable labors immense herds of these destructive insects are annually destroyed. Woodpeckers are the great protectors and conservators of our orchards and forests, and as such they should be preserved and encouraged to build their nests in the vicinity.

The Little Grave.

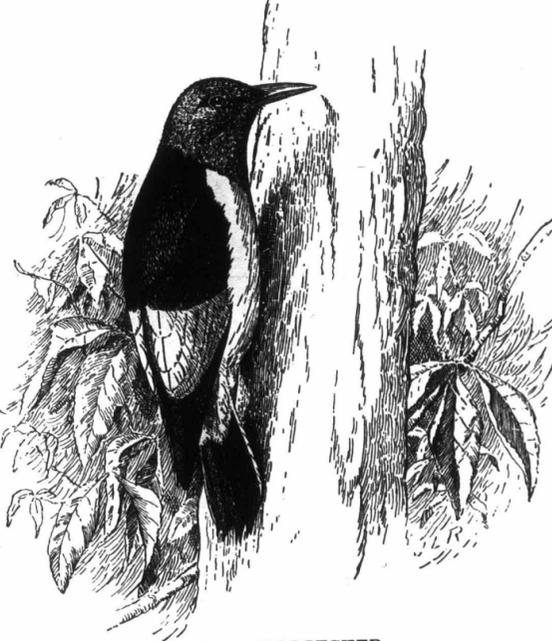
"It's only a little grave," they said, "Only just a child that's dead; And so they carelessly turned away From the mound the spade had made that day. Ah! they did not know how deep a shade That little grave in our home had made."

I know the coffin was narrow and small, One yard would have served for an ample pall; And one man in his arms could have borne away The rosewood and its freight of clay. But I know that darling hopes were hid Beneath that little coffin-lid.

I know that a mother stood that day With folded hands by that form of clay; I know that burning tears were on her face, And I know her lip, and cheek, and brow Were almost as white as her baby's, now.

I know that some things were hid away, The crimson frock, and wrappings gay; The little sock, and the half-worn shoe, The cap with its plumes and tassels blue; And an empty crib, with its covers spread, As white as the face of the silent dead.

'Tis a little grave; but, oh! have care! For world-wide hopes are buried there; And ye, perhaps, in coming years, May see, like her, through blinding tears, How much of light, how much of joy, Is buried up with an only boy!



THE WOODPECKER.

From Farmers' Bulletin, No. 54, by F. E. L. Beal, B. S., Assistant Ornithologist, U. S. Dept. of Agriculture, Washington.

## MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,—

I am pleased to note that some of you take an active interest in the home department by discussing questions of vital importance to yourselves.

What has been said regarding the disadvantages against which farmers' wives and daughters have to contend is true in a majority of cases, for it is quite the exception to find a farmhouse properly equipped with modern conveniences. One of the nieces remarks that "the men have all the machinery necessary to facilitate their work, while the women have to plod through their monotonous round of duties handicapped at almost every step." Such a state of affairs should not exist. Surely it must be want of thought that makes the men oblivious to the constant annoyances endured by those they love dearly for the want of ordinary conveniences! I feel certain that it is a very exceptional man who will not understand the necessity of lightening his wife's or sister's labor as much as he does his own when approached in the right way. See to it, however, that you *request, not demand*, for the average man is almost certain to refuse if you have no more tact than to say "I must have this or that."

It is not as difficult as it might seem to have properly-equipped country homes. If you intend building a new house plan first how you want everything arranged; mentally picture how your home will look when completed. Get a number of house plans and choose the best, or visit the homes of others with your eyes open to see the best arrangements for doing work with the least labor. An abundance of sunlight in the home is indispensable to the health of the household. Whatever will save a few steps, spare an aching back, and lessen the labor of housework, is indispensable.

If your house is an old one, built when comfort was seldom considered, you can still add by degrees those appliances and helps which do so much towards making otherwise difficult tasks easy and home happy. Some women are veritable slaves to their households, working when quite unfit to do so, that they may thereby spare their daughters, who eventually will scarcely thank them. Then, again, some think that the house would go to ruin if they left it for a week or two, or even a few days; and so year after year they stay at their post, never taking any enjoyment nor recreation of any kind.

What wonder, then, that they are faded, wrinkled, and gray prematurely! Why marvel that the poor, tired frame at last gives out, or that the once bright intellect becomes forever clouded.

You think that nothing would go right without your presence; but what would be done should you become a helpless invalid? They would simply have to manage without you then, and they can do so now while you take a little needed rest.

Banish care for awhile; go somewhere for a change of scene; see new sights and faces. Your family, no doubt, will miss you, but they will know how to appreciate you better on your return.

After a little rest you will feel so refreshed that you will be able to resume your accustomed duties with an alacrity of which you formerly thought yourself incapable, and thus benefit your family as well as yourself.

Finally, dear nieces, never, even under adverse circumstances, permit yourselves to become moody or complaining. A woman who had had many heavy sorrows and burdens to bear was noted for her cheerful spirits. She once said in explanation: "You know I had no money. I had nothing to give but myself, and so I made the resolution never to sadden anyone else with my troubles. I have laughed and joked when I felt like weeping. I have always tried to smile in the face of misfortune and to let everyone go from my presence carrying a happy word or a bright thought with them. Happiness makes happiness, and I myself am happier than I would have been had I sat down and bemoaned my fate."

This gospel of happiness is one that every woman should lay to heart. When things don't suit you, if your path in life is not just what you would have chosen, try to keep sunshine in your heart, and some time you will be rewarded by your cloud showing its silver lining. MINNIE MAY.

## The Scapegoat.

Holman Hunt was one of that famous trio who formed the renowned confraternity of the Pre-Raphaelite Brethren whose paintings created such a furor in the world of art when first viewed publicly at the exhibition of 1849. They were violently attacked by the critics, and so widespread and bitter were the discussions about these works, that to quell the excitement the third year they were removed.

Ruskin warmly espoused the cause of the Pre-Raphaelites, briefly defining their principles, "to paint nature as it is around them, with the help of modern science." According to his ideas, "Hunt was the only man who could paint the real leaf-green under sunlight."

Holman Hunt was innocent of an academical

training. He was a most ardent student of nature, which in some measure accounts for his great success as a painter. Most of his celebrated pictures were inspired by the Bible, and, in order to get correct backgrounds for his subjects, he spent several years in Syria and Egypt, studying the scenery and foliage of the country, and the manners and customs of the people. He lived for long periods in Jerusalem, where he painted his celebrated picture "The Scapegoat," in which his great technical ability and peculiarly prosaic imagination are plainly discernible. Much of the impressiveness of the painting is due to the background—the dreary border of the Dead Sea—so faithfully copied from nature. The subject of the "Scapegoat" is too well-known to need any explanation here, being a type of our Saviour. We are moved to tears as we think of the heavy burden we too have laid upon Him, while a spirit of thankfulness animates our being in recognition of His omnipotence.

Through the disciples of the P.-R. B. the art of England in general made a distinct advance. They had from the beginning a personal expression which no school could have given them, and which possibly school might have stifled. Two admirable results followed. The younger painters were influenced to return to nature, and sentiment superseded anecdote as subject for pictures.

## Little Feet.

Two little feet, so small that both may nestle  
In one caressing hand;  
Two tender feet, upon the untried border  
Of life's mysterious land;

Dimpled and soft, and pink as peach tree blossoms  
In April's fragrant days—  
How can they walk among the briery tangles  
Edging the world's rough ways?

Those rose-white feet along the doubtful future  
Must bear a woman's load;



THE SCAPEGOAT.

Alas! since woman has the heaviest burden  
And walks the hardest road.

Love, for awhile will make the path before them  
All dainty, smooth and fair,  
Will cut away the brambles, letting only  
The roses blossom there;

But when the mother's watchful eyes are shrouded  
Away from sight of men;  
And these dear feet are left without her guiding,  
Who shall direct them then?

How will they be allured, betrayed, deluded,  
Poor little untaught feet!  
Into what dreary mazes will they wander?  
What dangers will they meet?

Will they go stumbling blindly in the darkness  
Of sorrow's tearful shades?  
Or find the upland slopes of peace and beauty,  
Whose sunlight never fades?

Will they go toiling up ambition's summit,  
The common world above?  
Or in some nameless vale, securely sheltered,  
Walk side by side with love?

Some feet there be which walk life's track unwounded,  
Which find out pleasant ways;  
Some hearts there be to which this world is only  
A round of happy days.

But they are few. Many there are who wander  
Without a hope or friend,  
Who find their journey full of pain and losses,  
And long to reach the end.

How shall it be with her, the tender stranger,  
Fair-faced and gentle-eyed,  
Before whose unstained feet the world's rude highway  
Stretches so strange and wide?

Ah! who may read the future? For our darling  
We crave all blessings sweet,  
And pray that he who feeds the crying ravens  
Will guide the baby's feet.

—Central Christian Advocate.

SHORT BREAD.—One pound flour, one-half pound butter, one-quarter pound brown sugar; mix well and bake in round tins.

## THE CHILDREN'S CORNER.

## The Golden Fleece.

(Continued from page 303.)

"After taming the fiery bulls," continued King Aetas, who was determined to scare Jason if possible, "you must yoke them to a plow, and must plow the sacred earth in the grove of Mars, and sow some of the dragon's teeth from which Cadmus raised a crop of armed men. These sons of the dragon's teeth will probably kill you and your Argonauts, my bold Jason."

"My master, Chiron," replied Jason, "taught me, long ago, the story of Cadmus. Perhaps I can manage the sons of the dragon's teeth as well as Cadmus did."

While the king talked with Jason, his beautiful daughter Medea stood behind the throne, listening to every word. She followed the young man out of the room and promised to teach him how to tame the fiery bulls and get the Golden Fleece. Jason, looking into her wonderful eyes, felt that if he had been capable of fearing anything, he would have been afraid of making this fair young princess his enemy. Beautiful as she now looked, she might, the very next instant, become as terrible as the dragon that kept watch over the Golden Fleece.

"Princess," he exclaimed, "you must be an enchantress."

"Yes, Prince Jason," answered Medea, smiling. "I could tell you, if I pleased, who was the old woman with the peacock whom you carried over the river; and, likewise, who it is that speaks through the lips of your oaken figurehead. It is well for you that I am favorably inclined, for, otherwise, you would hardly escape being snapped up by the dragon."

"I should not so much care for the dragon," replied Jason, "if I only knew how to manage the brazen-footed and fiery-lunged bulls."

"Your own bold heart," said Medea, "will teach you that there is but one way of dealing with a mad bull. What it is I leave you to find out in the moment of peril. As for the fiery breath of these animals, I have a charmed ointment here, which will prevent you from being burned up."

She put a golden box into his hand, with directions for use, and told him to meet her at midnight. At the appointed hour he met the beautiful Medea, and received from her hands a basket containing the dragon's teeth.

As they entered the royal pasture, the princess paused and looked around.

"There they are," said she, "chewing their fiery cud in that far corner of the field. It will be excellent sport, I assure you, when they catch sight of you. My father and all his court delight in nothing so much as to see a stranger trying to yoke them, in order to get the Golden Fleece. It makes a holiday in Colchis whenever such a thing happens. For my part, I enjoy it immensely. You cannot imagine in what a mere twinkling of an eye their hot breath shrivels a young man into a black cinder."

"Are you sure, beautiful Medea," asked Jason, "that the magic ointment will be proof against those terrible burns?"

"If you are in the least afraid," said the princess, "you had better never

have been born than go a step nearer to the bulls." For answer, Jason walked boldly forward. At some distance he perceived four streams of fiery vapor, caused by the breath of the brazen bulls, which was quietly stealing out of their four nostrils, as they lay chewing their cud. He went a little farther, and now could see vivid jets of flame, as the bulls lifted their hot noses to snuff the air. At the next step, each of the bulls gave a terrible roar, rushed on Jason with the speed of lightning, and lighted the whole field with sheets of white flame.

He saw the two horrible creatures galloping right down upon him, their brazen hoofs ringing over the ground, and their tails sticking up stiffly into the air, as has always been the fashion with angry bulls. Their breath scorched the herbage, and set a dry tree into a blaze. The white flames curled round Jason, without injuring him more than if he had been asbestos. Surely the ointment had done its work well. Greatly encouraged at finding himself not yet turned into a cinder, the young man awaited the attack. Just as the brazen brutes fancied themselves sure of tossing him into the air, he caught one of them by the horn, and the other by his screwed-up tail, and held them like a vice, one with his right hand, the other with his left. Well, he must have been wonderfully strong in his arms, to be sure. But the secret of the matter was, that they were enchanted creatures, and Jason had broken the spell of their fiery fierceness by his bold way of handling them. Ever since that time it has been the favorite method of brave men, when facing danger or difficulty, to "take the bull by the horns"; that is, to throw aside fear, and overcome the peril by despising it.

It was now easy to yoke the bulls, and to harness them to the plow, which had lain rusting on the ground for a great many years, so long was it before anybody could be found capable of plowing that piece of land. Jason, I suppose, had been taught how to draw a furrow by the good old

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Chiron. At any rate, our hero succeeded in breaking up the greensward, and soon had a plowed field ready to be sown with the dragon's teeth. He scattered them broadcast, and harrowed them into the soil with a brush-harrow, then stood in the moonlight, anxious to see what would happen next.

[TO BE CONTINUED.]

THE QUIET HOUR.

Helping Somewhere.

"Is your father at home?" I asked a small child on our village doctor's doorstep. "No," he said, "he's away." "Where could I find him?" "Well," he said, "you've got to look for some place where people are hurt or sick, or something like that. I don't know where he is, but he is helping somewhere."

Do the Next Thing.

Don't live a single hour of your life without doing exactly what is to be done in it, and going straight through it from beginning to end. Work, play, study; whatever it is, take hold at once and finish it up squarely; then to the next thing, without letting any moments drop in between. It is wonderful to see how many hours these prompt people contrive to make of a day. It is as if they picked up the moments the dawdlers lost. And if you ever find yourself where you have so many things pressing upon you that you hardly know where to begin, let me tell you a secret: Take hold of the very one that comes to hand, and you will find the rest will fall into line and follow after like a company of well-drilled soldiers, and, though work may be hard to meet when it charges in a squad, it is easily vanquished if you can bring it into line.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

According to promise I herewith announce a new competition. Aware of the pleasures and advantages derived from having one's mind stored with some of those beautiful thoughts left us by the master minds, and wishing my boys and girls to profit by them, I offer two prizes (first, a volume of poems; second, a cloth-bound book) for the best collections of such "memory gems" sent by any of our readers. The following rules will govern this competition:

Write only on one side of paper. Each collection must contain fifteen selections, any number of which may be taken from one author if desired. The quotations (which may be either prose or poetry) must not be very long—those which are short, pithy and easily committed to memory being preferred. The author's name should be affixed to each "gem" whenever possible.

All work must reach this office before September 1st, and the result will appear in September 15th issue. We claim the liberty of using any collection, prize-winning or otherwise. Should we do so the name of the sender will be given unless a contrary request is made. If sufficient interest be evinced in this competition it may be repeated; so get to work, boys and girls, ransack your memories, and unearth from your books the treasures that have lain so long hidden, and while improving yourselves you may also benefit others.

The winners of prizes of original puzzles during the last quarter are: 1st, Annie P. Hampton, Boyne, Ont.; 2nd, Clara Robinson, Markham, Ont.; 3rd, Ethel McCrea, Springtown, Ont., and John S. Crerar, Brussels, Ont., equal. Solvers' work is not all in at present writing.

Puzzles.

All work for this department should be addressed to Ada Armand, Pakenham, Ont.

1.—RIDDLE.

Four brothers much alike are we And yet we never can agree, For one is gentle, soft, and bright As a shadowy gleam of wavy light. Another is ardent in everything.

Your loving— UNCLE TOM.

Like the cat that sat before the king. Another yet is hard and stern, As a soldier tried or a Scottish burn. And yet another is stormier still That all things bend beneath his will. The clothing we wear—the costliest seen— Is of three colors, red, purple, and green. And there's one of us with you all the time To aid you in comfort, or pleasure, or crime. Wm. S. Banks.

2.—CHARADE.

My first is often eaten With potatoes and eggs. Although you sometimes see it Going on legs. My second every person is When they do not feel well; My third is very heavy. But this is all I'll tell. Now, if you join all these aright A city in Canada they'll bring to sight. ADDA WHETSTONE.

3.—PROBLEM.

I wish to plant nine evergreen trees in such a manner that there will be ten rows, with three trees in each row. How may I do it? ADDA WHETSTONE.

4.—DROP VOWEL.

Wh-t-a-p-st-s-p-at-f-r-v-r. L-t-l-l-fr-t-ng-b-r-s-g-a-d; -t-w-l-l-n-v-r-h-l-p-h-m-t-t-r. D-y-r-b-st-nd-n-v-r-m-nd. ADDA WHETSTONE.

5.—SQUARE WORD.

My first is to have; my second is to avow openly; my third is expression of choice; my fourth is a large pitcher. ADDISON M. SNIDER.

6.—SQUARE WORD.

My first is one's dwelling house; My second is delivered from the mouth; My third is coverings for the floor; My fourth is otherwise. ETHEL MCCREA.

Answers to June 15th Puzzles.

- 2.—Gratified. 3.—Balm—palm, utter—otter, munch—bunch, foam—roam, decent—recent, finger—ginger. 4.—(1) Voice, (2) woman, (3) clock. 5.—(1) Language, (2) just before Eve. 6.—Gland. 7.—Sow truth, if thou the true wouldst reap—Who sows the false shall reap in vain. Erect and sound thy conscience keep; From hollow words and deeds refrain.

SOLVERS TO JUNE 15TH PUZZLES. Maggie Scott.

GOSSIP.

Any horse owner requiring a good all-round hand should write "Royal." See wanted ad.

Throughout many sections of Ontario fall wheat has ripened very rapidly, and in the western section bids fair to be a heavy crop. Mr. A. J. Maynard, Simcoe Co., Ont., commenced cutting his favorite varieties, Early Genesee Giant and Dawson's Golden Chaff, on July 10th; heads well filled, and promise of a great yield.

Mr. W. R. Bowman, of Mt. Forest, Ontario, breeder of Yorkshire and Berkshire swine, writes us under date of July 7th as follows: "As I wish to continue my advertisement in your paper, I enclose change of advertisement for July 15th issue. There is no use in enlarging my advertisement, or I would have to keep a secretary to answer correspondence. Can sell double the number I can raise. With best wishes for your success, I remain."

At a combination sale of Jerseys, June 25th, at Columbus, Ohio, the most striking feature was the active demand for the richly-bred bull calves contributed by Judge Bradbury, four of which sold at \$100 to \$130 each, and two averaged \$72. Bids by mail were more numerous than buyers in person; thirty-five such bids coming from seven different States, and the sale was considered very satisfactory.

J. H. Smith & Sons, Highfield, Ont., write: "We have sold the young bull advertised in your paper to Mr. W. V. Edwards, Souris, Man. He is a grand young bull, and Mr. Edwards writes that he is much pleased with him, and intends showing him at the Winnipeg Exposition. He has already to his credit six top prizes, and is very hard to beat. Please find enclosed cheque for amount due you for advertising. With many thanks for past favors and wishing your paper every success."

NOTICES.

The Reliable Poultry Journal of Quincy, Ill., consisting of 64 to 100 pages, issued monthly and finely illustrated, is one of the very best poultry papers published in America. No matter what branch of the poultry business you are engaged in, it will interest you and help you. Do not take our word for it, but drop the publishers a postal card, asking for sample copy. This sample will speak for itself.

Whether a man is in life insurance, medicine, dairying, bee-keeping, general farming or poultry-keeping, he should avail himself of as much of the lessons of the experience of his contemporaries as possible. Life is too short for each man to find out for himself all there is to learn about a business. Perhaps there is no field where greater help can be obtained in this direction than in the keeping of poultry, which must be managed understandingly and with diligence in order to realize a profit. We know there are so-called poultry papers and poultry papers between which there is a wide difference. Among a few of the best that have come to our notice is Farm Poultry, published by I. S. Johnson & Co., Boston, Mass. It is as its name implies—a practical, helpful friend to any poultry-keeper. Judging from the copy before us (May 1st), its editors are practical men, who spend considerable time among their flocks. They also seem to have a wide correspondence with intelligent egg and poultry producers, who render valuable service in enlightening its readers on many of the hard-to-hand difficulties of the calling. Farm Poultry is a 21 page semi-monthly that has the liberal patronage of advertisers and a wide circulation.

BREEDERS' DIRECTORY.

25 Cards up to six line space inserted under this heading, one issue a month, \$3 per line per annum; every issue, \$5 per line. Payable in advance.

A. ELLIOT, Pond Mills.—Collie Dogs, Tamworth, Duroc-Jersey, and P. China pigs. Oxford Sheep and sweepstakes Bronze Turkeys.

J. S. TOLTON, Walkerton, Breeder and Importer of Oxford Sheep, also Breeder of Shorthorn Cattle and Bronze Turkeys.

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

R. J. McNEILL, Ormstown, Que., breeder of registered Berkshires. Young stock always for sale at reasonable prices.

GUY, Oshawa, Ont., Breeder of Ayrshire Cattle—prize winners at the World's Fair.

Live Stock Farm FOR SALE

In Townships of Calvin and Lauder, District of Nipissing, Province of Ontario.

LOTS 21 and 25, CON. 10, TOWNSHIP OF LAUDER. " 8 " 9, " 1, " " CALVIN.

Which contains 387 acres more or less, of which about ninety acres of loam and clay under cultivation, on which all kinds of machinery has been used, and on which is erected bank barn, 40x86 feet, with 9 feet stone wall, and 18 feet wall on top, under which there is stall room for 64 head, and into which water is supplied in pipes from chute in creek about 1,600 feet distant; also a frame barn 40x50 feet; pig house, 30x40 feet; frame dwelling house, well finished and plastered, 18x21 feet; summer kitchen, 16x18 feet; wood shed, 15x21 feet; and silo, 16x16x21 foot wall. There is a fine water power and valuable mica mine on the property, and the Patois Creek runs through the property. Anyone thinking of going into a stock farm this is a grand opening. Game and fish in abundance. Post office distant 3 miles; Mattawa, 10 miles; Eauclaire, 6 miles. For terms and further particulars apply to our address:

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Three Clydesdale Mares

Weighing from 1,650 to 1,800 pounds, and their colts from 1 to 3 years old. Choice young Yorkshires of both sexes.

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Shorthorn Cattle, Poland-China, Duroc-Jersey, and Chester White Swine, and Leicester Sheep. We now offer for sale five good young bulls, and also heifers of choice quality and breeding, sired by Chief Captain, a son of Indian Chief. Young pigs of both sexes & all ages at exceedingly low prices.

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IN Shorthorns WE BREED THE BEST. AND Leicesters Young stock FOR SALE!

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(ASHTON FRONTVIEW FARM), now offers for sale one extra good SHORTHORN BULL, also BERKSHIRE PIGS about three months old, at reasonable prices. Correspondence solicited. Bolton Station, C. P. R. 22-2-y-o

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of deep milking SHORTHORNS for sale. Heifers and cows of the very best milking strain. Inspection invited. 13-y om WM. GRAINGER & SON, Londonboro, Ont.

FOR SALE. A few choice SHORTHORN BOARS fit for service, sired by J. G. Snell's Enterprise. Prices right. Correspondence solicited. F. A. Gardner, BRITANNIA, PEEL COUNTY, ONT.

WANTED By a young horseman, situation. High-class stable preferred. Good groom, rider and driver. Testimonials. Address—"ROYAL," Box 828, Montreal, Que.

NOTICES.

In writing to advertisers, mention the "Farmer's Advocate."

The excellence of Windsor salt is being recognized in keeping with its merits for dairy purposes. We are advised that it is being used by the experimental farms in Manitoba and the Northwest Territories in their respective dairies. The Windsor Company is also supplying some of the largest creameries in British Columbia. This firm reports business exceedingly good and growing throughout the whole Dominion. The excellent qualities claimed for this salt are its easy solubility, purity and evenness of crystals. For butter and cheese these points are valuable.

One can have very little conception of the perfection attained in metal roofing, siding, ceiling, etc., without a very recent and careful investigation of the work being done by such institutions as the Metallic Roofing Co. of Canada, Toronto, Ont. As a matter of fact these metal preparations are being largely used in the construction of nearly all the new buildings of any note. For instance, the "Temple" building, Toronto, which is one of the most fire-proof office buildings in Canada, has over \$40,000 worth of goods from this one Toronto firm. In the space at command we cannot pretend to give anything of an adequate idea of this firm's work. In such a case we cannot do better than recommend the procuring of their extensively illustrated catalogues of the following lines: Steel shingles and tiles, steel siding plates, steel clappboards, V crimped roofing, pressed double cap roofing, ready roll cap roofing, corrugated iron roofing, siding, ceiling and arches, fire-proof floors and shutters, embossed and panelled steel ceilings, galvanized eavestrough and conductor pipe, iron and steel ridgings, valleys and corner caps, roofing and siding paints, and the "Hayes" patent fire-lathing. The catalogues issued by this firm are truly works of art. We take pleasure in recommending their goods to persons building new structures or repairing old ones, either outbuildings or dwellings. Write them at the corner King and Dufferin Sts., Toronto, Ont., and secure a catalogue describing the line of goods desired.

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- Salt puts out fire in the chimney. Salt in the oven under baking tins will prevent their burning on the bottom. Salt and vinegar will remove stains from discolored teacups. Salt and soda are excellent for bee stings. Salt thrown on soot which has fallen on the carpet will prevent stain. Salt put on ink when freshly spilled on a carpet will help in removing the spot. Salt in whitewash makes it stick. Salt thrown on a coal fire which is low will revive it. Salt used in sweeping carpets helps to keep out moths.

DAK HILL HERD OF TAMWORTHS.

Herd headed by the sweepstake winner, Springbrook Hero. Young stock for sale at all times. R. J. & A. LAURIE, Wolverton, Ont.

IT PAYS TO ADVERTISE

IN THE FARMER'S ADVOCATE

GOSSIP.

The date of the Chicago Fat Stock Show has been changed from November 9-20 to November 2-13.

Dr. Koch, the eminent German scientist, has been in the employ of the British authorities at Cape Colony, seeking to find a way of overcoming the terrible cattle plague, rinderpest, and is reported to have been successful in discovering a substance for inoculation whereby the cattle will enjoy immunity from the plague.

"Holstein-Friesian Cattle" is the title of a book recently prepared and issued by Fred. L. Houghton, the able editor of the Holstein-Friesian Register, and secretary of the American H.-F. Association, Brattleboro, Vt.

Robert Miller, Brougham, Ontario, writes: "We have sold to Mr. H. C. Stuart, of the Stuart Land and Cattle Co., Elk Garden, Va., eleven cattle and six sheep.

While calling upon Mr. R. Honey we saw the two-year-old Holstein stock bull, Duke of Streetsville 898, sired by Alpha and out of Clara A. He was bred by Hugh McCaugherly, and possesses much quality to recommend him as a sire, standing well on his feet, having a sleek, velvety skin and a good disposition.

The Cotswold sheep, though few in number, have been selected with care. The stock ram was a prize-winner in the hands of his former owner, Mr. Garbutt, Claremont, when he won first honors at Ottawa and Montreal and 2nd at Toronto, as well as four firsts at local fairs in 1896, which speaks much for his quality and conformation.

At the head of the Yorkshire White pens is the stock boar, Bismarck 2162, by Alderman 1655, and out of Village Maid 1667; a first prize winner in the under 6 mo. class in Toronto in '95. He has proven himself a worthy sire, judging from the appearance of a litter of five 3 mos. pigs, which we were informed were out of an excellent registered brood sow.

Arthur Johnston,

Greenwood P. O. and Telegraph Office,



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EXTRA GOOD SHORTHORN BULLS

fit for service; also an equally good lot of Cows and Heifers, the best we ever offered.

Send for Catalogue and prices. Enquiries answered promptly. Claremont Stn. C.P.R. or Pickering Stn. G.T.R. Our motto: "No business, no harm."

F. BONNYCASTLE & SONS,

CAMPBELLFORD, ONT.,

Breeders of Pure-bred Shorthorns of highest milking strains. Cotswold Sheep and Berkshire Pigs of gilt-edge breeding now ready for shipment. Prices right.

FOR SALE! Good Young Cows

two years old yearlings and heifer calves out of imported and home-bred cows, and the imported bulls, Royal Member and Rantia Robin. Come and see them, or write, if you want something special.

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

Telegraph office, Burlington Station, G. T. R. BREEDERS of Shorthorns, Shropshires, and Berkshires. Have on hand and for sale twenty choice one and two year old rams, four pair of extra good yearling ewes, and a nice lot of Berkshire boars and sows from two to six months old.

THOS. ALLIN & BROS.,

LAKE VIEW FARM, OSHAWA, ONT.,

Breeders of SHORTHORN Cattle and SHROPSHIRE Sheep. 2 choice young bulls now for sale, also a few choicely bred cows and heifers. Hard times prices. Correspondence solicited.

FOR SALE! 2 FINE YOUNG REGISTERED JERSEY BULLS,

about 17 months old; heifer and bull calves, and a choice lot of young Berkshire pigs. Prices right.

The Don Herd of Jerseys

Comprises the choicest strains obtainable, including St. Lambert, Tennessee and combination blood. Am now offering a choice yearling Bull of superior quality and strong breeding, from imported stock. Also a choice bull calf.

LEE FARM REGISTERED JERSEYS.

Bulls fit for service, \$50 each. Heifers in calf, 50. Young cows in calf, 75. Heifer calves, 30. Solid colors. None better bred in Canada for dairy purposes. Come and personally select, or write for description and pedigree.

JERSEY BULL FOR SALE!

A cracker-jack, as handsome as can be bred. To see him is to be suited. Origin of Riverview 4379, A. J. C. C., dropped Mar. 28, '95; sire Arthur of Glen Duart, dam Blossom of Glen Duart. Price low. A. F. MACARTNEY & SON, DUNVILLE, 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.

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IN BELVEDERE STABLES are still 6 of my Best Jersey Cows

Kept for use of my own and daughter's families, but I do not wish to increase the number, hence I can usually offer something uncommonly choice. Just now I have 1 BULL, NEARLY 2 YEARS OLD, 1st prize winner, and fit for any herd.

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

WILLOW GROVE HERD OF JERSEYS.

Sweepstakes herd of 1893, 1894, 1895 and 1896. J. H. Smith & Son, Highfield, Ont., are offering 12 females, to calve shortly: one first prize bull, dam Elena of Oakdale (19 lbs. 4 oz. of butter in seven days), grand dam Menes 3, A. J. C. C., test 20 lbs. 1 oz. in seven days.

JOHN PULFER, BRAMPTON, ONT.

Breeder of choice reg. and high-grade Jerseys of fine quality. Also TAMWORTH SWINE. Young stock always for sale at prices that should sell them.

Prize-Winning AYRSHIRES FOR SALE.

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

JAS. McCORMICK & SON, ROCKTON, ONT.

Maple Cliff Herd of Ayrshires

Are noted for their successful show-yard career. Choice quality and heavy milking families. A few exceptionally choice young animals of both sex now for sale. Prices in keeping with the times. For particulars address

ROBERT ROBERTSON, Prop., 16 2-y-om COMPTON, QUE.

GLENGARY STOCK FARM.

My herd comprises the best strains procurable. Am now offering young bulls and heifers descended from the importation of the late Thos. Brown. PRICES RIGHT.

Maple Cliff Stock Dairy Farm

Ayrshire Cattle, Berkshire and Tamworth Pigs. Special offers for this month—Bull calf, Jack of Maple Cliff 7 months old, by Gold King, and from Mysie Carrick (a very deep milker), \$35. Berkshire pigs, 1 month old, \$3.00 each; Tamworths, 2 months old, \$7.00 each.

BROOK HILL AYRSHIRES....

are still to the front. Two fine bull calves for sale. Orders taken for young stock. Speciality in bull calves. Correspondence solicited.

JNO. SANDILANDS, Williamstown, Ontario, BREEDER OF CHOICE Ayrshire Cattle.

Young stock of both sexes now for sale at farmers' prices.

AYRSHIRES FOR SALE.

Six choice young bulls, one and two years old, by Earl of Percy. My young cows are by Douglas of London 1904, bred by J. Morton & Sons. Prices right. F. W. TAYLOR, Hoard's St., G. T. R. Station, Williamstown, Ont.

GOSSIP.

Another outbreak of p'uro-pneumonia in Middlesex Co., Eng. and (at Wood Green), in a herd of between fifty and sixty head of cattle, most of them milch cows. Nearly the whole of them were slaughtered. Since the above outbreak was reported another one was discovered in a cowshed in the east end of London, in which the disease was found early in January, and again in March of the present year. In these two previous outbreaks the whole of the cattle on the premises were slaughtered, and from this it would look as if in restocking the place fresh infection had been introduced.

C. & E. WOOD'S LEICESTERS. On the farm of Messrs. C. & E. Wood, Freeman, Ont., we were shown some choice Leicester sheep, 80 in number, which are descended directly from superior imported stock, and are made up of 3 aged and 6 shearing rams, 85 breeding ewes with their 35 lambs, and 10 shearing ewes. The rams are well-covered, strong lot. From the way the lambs are progressing it is evident that the ewes are good milkers. The entire flock is doing well in the rich clover pasture, and the coming fall will find the Messrs. Wood Bros. well equipped to meet the increasing demand for sheep, and in a position to retain the standard which they have taken as prominent sheep breeders and exhibitors, in which capacity they have been very successful, winning many first honors and diplomas in strong competition. We were much pleased with their flock.

F. BONNYCASTLE & SONS. Four miles south-west of the pretty village of Campbellford in the County of Northumberland, Ont., is the well-situated and comfortable stock-breeding establishment of Messrs. Bonnycastle & Sons, a firm widely and favorably known among the breeders of Shorthorns, Cotswolds and Berkshires. During our visit on a recent eastern trip we had the pleasure of being shown over the farm and chatting with the proprietors about the stock. Our attention was directed first to the Shorthorn herd of some 27 head, comprising 21 females of various ages, 2 bulls and 4 bull calves. The stock bull, Redman 21765, by Toftbill, and out of Canadian Duchess of Gloster, is now in his two-year-old form. He was purchased from Arthur Johnston, and bred by Allen Bros., Oshawa. He is a beautiful solid red, possessing much substance and quality. He is kept in good stock condition, but not fat, and has proven himself a sure and worthy sire, his stock being most red. In condition we think he will safely reach 2,300 pounds in weight. The seven-months bull calf, by Redman, and out of Sunflower 26171, by Brighton Lad 14766, dam Cecelia 5th, by Liddesdale 1285 (imp.), also an animal possessing quality that demands attention. His limb can scarcely be improved on, carrying well-filled quarters. He has a beautiful countenance and fine disposition, and is well qualified to fill the position for which he is now being fitted in the herd. Among the matrons in the herd our attention was directed to Anchovy 11th, a red cow six years old, by Prince of Northumberland 1888, and out of Anchovy 3rd, possessing conformation that qualifies her as a combination cow. She has an abundance of substance coupled with dairy form and an immense udder. She is now raising her 4th heifer calf. Anchovy 10th is a six-year-old roan cow, by Prince of Northumberland, and out of Anchovy 5th. She also possesses good size and shows deep milking qualities. In conformation she inclines towards the dairy form, yet possessing sufficient substance and quality, while her two-year-old roan daughter, Anchovy 12th, by Baron Walcott, possesses more strictly beefing conformation. She has a beautiful set of limbs, which support a squarely built, long and deep body, and a nicely covered back. She is supposed to be safely in calf. Anchovy 8th, seven years old, is a prompt stylish cow, possessing strong dairy qualities; in fact, says Mr. B., "she has to be milked twice a day—her bull calf at her feet, by Redman, although a strong, heavy fellow, being unable to take it all." We also saw a very sweet, smooth yearling red and white heifer, out of Anchovy 8th, by Baron Walcott. She shows a decided beefing tendency in make-up, yet descended from a strong milking family, which has been one of the chief objects in view by Mr. Bonnycastle, always selecting foundation stock of the purest Shorthorn type and from the best milking stock obtainable.

The foundation stock of the Cotswolds were originally obtained from the flocks of A. Johnston, J. C. Snell, and Mr. Stone; also recent purchases have been made from Mr. Garbutt, Claremont. The flock now consists of twenty-six breeding ewes, having over thirty lambs, which are a strong, growthy, even lot; in fact, we noticed some extraordinary good fine lambs among them. Among the ewes are some selected from show flocks, which are a creditable lot, possessing quality all over. The two-year ram was bred by Mr. Garbutt from imported stock, his sire being a prize sheep. Three very choice shearing rams are also worthy of notice, and the present demand for good sheep finds Mr. Bonnycastle in good shape for business.

At the head of the Berkshires is the sixteen-months stock boar, Harkwell 4557, by King Lee 3450, and out of Best On Earth, by Boydston Boy 2878, an animal possessing much quality and substance, having perfect markings. He has proven himself a sure sire, having been very liberally patronized this season. A four-year-old sow with seven pigs at her feet, which possesses much quality, is a model of her breed with faultless markings. The herd also comprises two sows now suckling their first litters, which are fine specimens of this popular breed. The young stock possesses much fine quality and substance, and are well marked. The noted brood sow, Bonny Lass 2881, by Royal Warrior 1294, and out of Dolly Varden 2277, by John A. 1632, must not be overlooked, and visitors on the farm cannot but be attracted by her. The foundation stock was obtained from such breeders as Johnston, Snell, and Garbutt, and much care in the selection of her brought together a class of animals worthy of the attention of Berkshire fanciers in this country.

Wm. renowi approce FARMER raisers

The son, B... stock... famous regard the pasting and ha... and b... mark... The h... giving 15th. a year's registe... grade... this... has di... She ha... she is... per da... has pe... Don w... last fa... 1896, as... to be o... ada. o... year-o... beam... Rica's... a close... record... list pri... the 1st... hibitor... Ashme... ine v... them... oow a... Mand... grand... week... Ayles... St. Le... anima... but ha...

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GOSSIP.

Wm. McGarry, Lanark County, Ont., when renewing his subscription, remarks that he appreciates very much the services of the FARMER'S ADVOCATE to the farmers and stock raisers of the country.

B. H. BULL & SON'S JERSEYS.

The extensive Jersey herd of B. H. Bull & Son, Brampton, Ont., are making rapid progress towards their finishing touch for this season's competition at the fall shows. The stock bull Kaiser Fritz, a grandson of the famous King Coffee, is kept in stock condition regardless of showing, and we found him in the pasture, on the occasion of our visit, running with the calves. He has fine dairy form and has produced some worthy young stock, and bull calves from him have made their mark in active competition at the large shows. The herd complete consists of some 12 cows giving milk and 8 to calves before September 15th, and 4 two-year-old heifers, besides this year's crop of calves; making about 40 head of registered animals, besides about 20 fine grades. Some worthy matrons are owned on the place. Rhoda of Don, a four-year-old cow, has distinguished herself wherever shown. She has a calf to Sir Ollie. As a two-year-old she is credited with a record of 34 lbs. milk per day, and she carries a model udder, and has perfect dairy conformation. Corinne of Don was winner of 2nd place in the dairy test, last fall at Guelph, and is the dam of Sunbeam, winner of 1st prize at Toronto and London, 1896, as a two-year-old. She is acknowledged to be one of the most perfect Jerseys in Canada. Great things are expected of the two-year-old Chicora by Sir Ollie and out of Sunbeam. She dropped a calf in June to Costa Rica's son by Golden Bow, bred at Hood farm, a close descendant of Merry Maiden, the famous World's Fair winner. Chicora was the 1st prize heifer calf at Toronto in '95, and in the 1st prize herd of four calves bred by exhibitor. Recent purchases from Lieut. A. F. Ashmead, Quebec, has brought a dozen promising well-bred animals into the herd, among them being Ruby's Lass 2nd, the gold medal cow at the Quebec Provincial fair, with a record of 50 lb. milk per day, and her daughter, Maud of Hazelhurst, and Princess Minetta, a grand cow with a record of 19 lbs. butter in a week, as well as 10 others, mostly sired by Aylesbury, by Brier Pogie, out of Comely of St. Lambert, a cow having a test of 23 lbs. per week to her credit. The introduction of such animals into the already strong herd cannot but have its influence in favor of the breed.

H. BENNETT & SON, ST. WILLIAMS.

Seventeen miles south-west of the town of Simcoe, in the county of Norfolk, brings us to the pleasantly situated village of St. Williams, overlooking Long Point in Lake Erie, while a short mile and a half to the north-west we find a very comfortable, well-kept brick farmhouse, the home of Messrs. H. Bennett & Son, who are very enthusiastic Berkshire fanciers, and the reason is easily explained when we were permitted to look over the stock, numbering 27 animals, after a refreshing rest. The stock bear Bright Star 4172, by Star One (Imp.) 3071, and out of Roxina 2833, by imported Enterprise 1378, was bred by J. G. Snell, and is now rising 16 mos., and to say that he is quality all over is drawing it mild. In present form, which is in a thrifty working condition, he tipped the scales in our presence at 625 lbs., and carries it as actively as though he were six months old. He measures a trifle over 6 feet long, while his girth falls very little short of his length. His ears are nicely set on a perfect head, and his markings are just right. He won 3rd in Toronto at an age much younger than his competitors in the same class. Next we saw a rising Victor-bred fellow 31 mos. old, also bred by Mr. Snell, and placed in the herd on account of his superior breeding, coupled with good individual conformation. Among the brood sows we found Lady Bennett 5079, bred by J. G. Snell, now 15 mos. old, sired by the noted Baron Lee 4th 3144, and out of Painted Maid 2nd (Imp.) by Toddy 2807. The sow was the winner of the first prize in Toronto last year, and possesses as much quality as could reasonably be looked for. She is now suckling a very young litter, which could have been disposed of at good prices had they been for sale, but they will be retained in the herd. Bennett's Choice, 13 mos., bred on the place, sired by Xerxes 4625, and out of Flora Stuart 438, by Star One, is now suckling a fine litter of four bears and two sows by Chiefstain. She also possesses good individual quality and strong breeding. She is nicely marked. Flora Stuart 438, 27 mos. old, is now suckling her 3rd litter to Chiefstain, which in all number 34, and raising them well. She is sired by Star One and out of Coquette 2796 by imported Longrange. Finish is in the blood on the farm, by Xerxes out of Flora Stuart, is now 13 mos., and suckling her first litter. She will be bred to Bright Star. We were also shown a choicely-bred three mos. sow of good quality, purchased from Geo. Green. She is perfectly marked, and indeed is a prominent feature in the herd. Taking them as a herd they are a creditable lot, and considering the time the Messrs. Bennett have been breeding we consider they have made good headway by their well-considered judgment in the selection of their foundation stock, which is the only safeguard to a successful career. The object in view in obtaining their foundation stock, apart from superior breeding has been in selecting only those animals which meet his approval, possessing length and development of quarters. Another feature worthy of note is the management of his stock. No animals are crowded for room, and much stress is placed upon roomy yards adjoining the pens—a point not to be overlooked in the care of breeding stock. In the Plymouth Rock pens we saw about 50 hens, 15 of which were imported from noted American breeders. Three cockerels of capital breeding are now on the farm. Stock has also been obtained from noted Canadian breeders; among which are a pen from Mr. Eckart, Ridgeway, which have done exceptionally well. The combination of unrelated blood with judgment in selection of the foundation stock and strict attention to management is making this a strong feature of the farm. The demand for eggs has been good, many complimentary reports returning as to the quantity and quality of chickens produced from eggs shipped.

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Are recommended by representative farmers of the Province who have given them the most thorough tests of practical field work.

SEND to us for an interesting little pamphlet giving opinions of Canadian farmers on Deering machines.

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you buy a certainty that has back of it the biggest harvesting machine manufacturer of the world; that is made of the best materials used by any manufacturer; that is more modern in pattern and more scientific in principle than any other make of machine.

WE ARE HERE TO STAY,

and our branch house at London is permanently established to fill orders of Canadian farmers for Deering machines, Deering twine and repairs.

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as applied to Binders and Mowers originated with the Deering Company in 1892, were exhibited in the World's Fair exhibits in 1893, and have been in successful operation ever since. American and Canadian farmers are just now, after five years of opposition, beginning to imitate this inestimable boon to every well-conducted farm.

If you do not know who handles Deering machines in your locality drop us a line and we will introduce you to your nearest Deering agent.

DEERING HARVESTER CO.,

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OAK POINT STOCK FARM Ayrshires FOR SALE.

I have now for sale a choice lot of young bulls and heifers of fine quality, and bred from best milking strains. Particulars on application.

J. B. CARRUTHERS, Kingston, Ont.

WANTED TO PURCHASE!

Pure-bred Ayrshire Bull fit for service. Must come from a first-class milking family. No others need apply. JOHN RATTRAY, Box 156, HAMILTON.

For Sale.—Fine young pure-bred Shorthorn bull, 18 months, registered.



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GOSSIP.

In writing to advertisers, mention the "Farmer's Advocate."

The English live stock papers announce the death of two eminent breeders of Shire horses, Mr. John A. Barrs, Nailston, Nuneaton, and Mr. James F. Crowther, Knowle Grove, Mirfield. The latter had also been interested in breeding Yorkshire Coach horses and Hackneys. Mr. Barrs at the last London Shire show captured the junior championship. His uncle, Mr. H. Barrs, was also a noted Shire breeder, having raised the great horses William the Conqueror and Big Ben 3458.

GLEN ROUGE JERSEYS.

The beautiful home of Capt. Wm. Rolph, Markham, was made the object of our visit while in Markham township, when its proprietor in his friendly way gave us a very hearty welcome, and with pleasure showed us over his fertile, well-kept farm and noted herd of over 40 Jerseys. At the head of the herd is the stock bull, Exile of Glen Rouge, now three years old, a pure St. Lambert of great quality, sired by One Hundred Per Cent, and out of Marjoram of Glen Rouge, who tested in the hands of Miller & Sibley, 22 lbs. 124 ozs., and was considered by them one of the best Jersey cows in the United States. She was sold by Capt. Rolph to her present owners. Exile has never been defeated, although shown six times. The milking members of the herd now number 25 head, the balance being made up of yearlings and calves, 10 being bulls, 3 coming in September. The Captain reports business in Jerseys as being very good, 30 in all having recently been sold and shipped to various sections, including 7 head to Miller & Sibley, Franklin, Pa., among which was the celebrated sweepstakes bull Two Hundred Per Cent, winning first prize, sweepstakes and silver medal at Toronto last fall. Others went to Michigan, Philadelphia, New York, and Boston parties. A noted visitor to the farm was Alberta Longeagos Soto, Costa Rica, Central America, who, after visiting the most noted herds in Canada and the United States, made a selection of four animals from this herd, being one bull calf and three heifers, and Mr. Rolph has good hopes of seeing an extensive trade spring up with that country.

F. W. TAYLOR'S AYRSHIRES.

At the home of F. W. Taylor, Wellman's Corners, Ont., we saw some very fine and well-kept Ayrshire cattle, direct descendants of foundation stock obtained over twenty years ago from Prince Edward Co. The herd now consists of twelve cows, the stock bull, six yearling heifers, one heifer and three bull calves. Notably among the matrons may be mentioned Helen Maud, a red and white four-year-old, out of Rosa Lee, by Duke of Belleville. As a breeder she has three to her credit, the youngest a heifer calf being one of the place. She was the winner for three successive years in heavy competition. Her mother, Rosa Lee, by Duke of Belleville, and out of Beauty, is now ten years old, and has won the distinction of being a favorite of high esteem. She is directly descended from the noted Red Rose family. White Princess, red and white three-year-old, by White Prince 2nd, and out of Princess Louise, is a sweet, prompt, stylish cow of grand quality; has had two calves, and cuts quite a prominent figure in the dairy. The three-year-old, White Rose, out of Flora, and sired by Prince Leopold, cannot fail to attract one's attention on account of her superior quality and well-balanced udder, which she carries exactly right. The six yearling heifers spoken of are a very promising lot, and the pride of the owner. The sweet conformation, coupled with strong breeding, make them a very desirable lot, from which creditable records will undoubtedly be reported later. The stock bull, Douglas of London Hill 1384, bred by and purchased from D. Morton & Sons, Hamilton, Ont., is now four years old. He was sired by imported Royal Chief 1647, and out of Dandy 1st (Imp.), by Red Prince 1000. He possesses much merit apart from his superior breeding. He bears a good countenance and sweet disposition. His stock are a creditable lot.

W. STEWART & SON, MENIE, ONT.

On the farm of W. Stewart & Son we were shown some choice registered Ayrshires and poultry. The herd consists at present of 7 cows giving milk, 4 cows to calve in August, 8 heifers, 2 bulls and 3 calves. Notably among the cows is Jeanie Annor, by Royal Chief, and out of Sprightly, bred by Morton & Sons, Hamilton. She is now 5 years old and a model of her breed in conformation. She is due to calve in August to White Prince (Imp.). As a show cow she won 3rd honors two years ago at Toronto as a dry cow, and 3rd at Gananoque in the milking class. Her last calf, Lady Ottawa, by Dundonald, now on the farm, was 3rd at Toronto, 1st at London, and 3rd at Ottawa, being defeated each time by members of this herd. She is a prompt, stylish heifer of true dairy promise. Red Rose 3rd, 3 years old, red and white, bred by Mr. Morton, is also due to calve in August to Douglas of London Hill. She is of beautiful conformation and true to dairy form, and is a favorite in the herd. Jessie Stewart is 9 years old, was bred on the farm, is the mother of the 1st prize yearling bull at the World's Fair, and which has never been placed 2nd in any showing. She is also the mother of Scotch Lassie Jeanie, a winner in the large shows. Her last year's calf also won 1st at Toronto. Annie Laurie 3rd is one year old, sired by White Prince and out of May Flower, also due to calve in August, has been a winner in the showing. Preparations are being made for the coming shows.

In the poultry yards we were shown a great variety of breeds, and among them being many very fine specimens. The Mammoth Bronze turkeys are well represented, the tom weighing at show time 41 lbs., and has been an extensive prize winner. We also saw Toulouse and grey China geese, Rouen and Aylesbury ducks, Light and Dark Brahmas, Partridge Cocks, B. P. Rocks (single comb), Black and Brown Leghorns, Rose Comb White Leghorns, Black Minorcas, Golden Polish Houdans, Silver-Grey and Colored Dorkings, Indian Games, and Silver Spangled Hamburgs. Incubators are extensively employed, and a large percentage of the hatching done in this manner. Many prize-winning fowls have been reared on the place.

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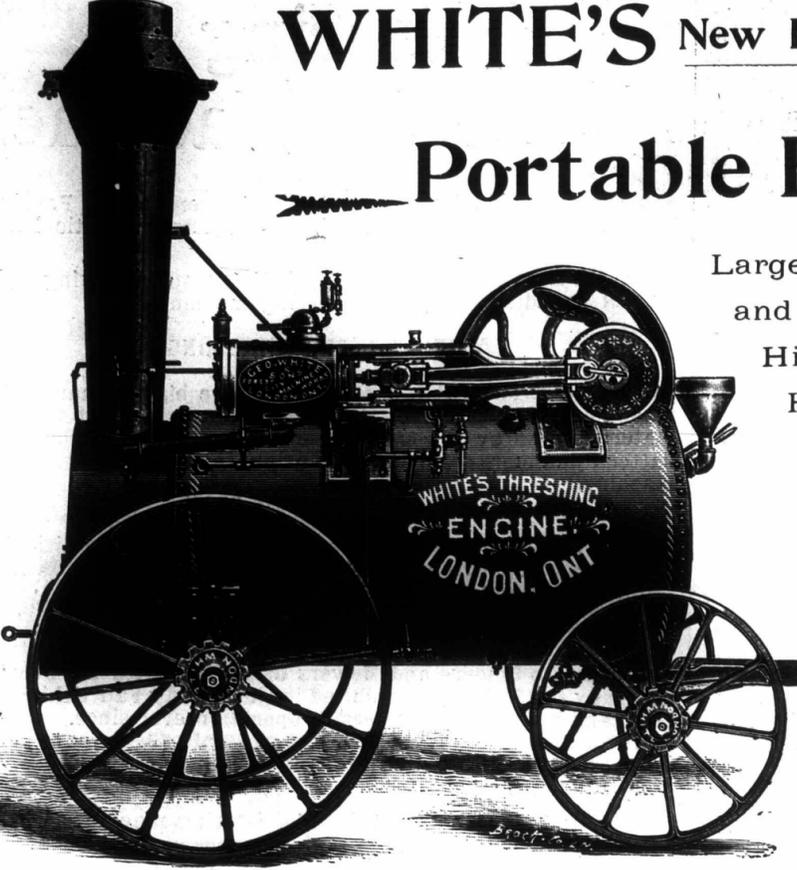
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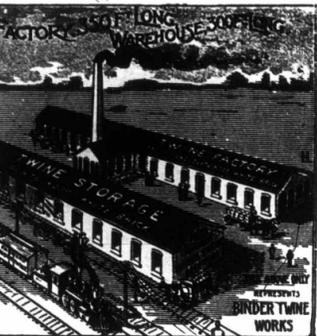
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**GOSSIP.**

Mr. John Marr, Cairnbrogie, has lately sold an extra thick, blocky colt, with good action, to Mr. Alexander Innes, Clinton, Ont. This colt was got out of the celebrated Darnley prize mare, Zehnet, bred at Urie, and winner of champion prizes at Aberdeen, Inverurie, and Formartine. Her dam was Nazli, first at the H. and A. S. Show, Inverness, in 1883, and her price was \$210 at the Easter Tulloch sale. The breeding of this colt is of the best, with Darnley and Boydston Boy blood on the dam's side, and his sire, Pandora's Prince, is one of the best bred horses in the country.—*Scottish Farmer.*

Shorthorn breeders the world over will sympathize with Mr. J. Deane Willis, Bapton Manor, in the loss of his famous prize-winning bull, Count Lavender, as the result of an accident. He was brought out in show condition to win as a yearling, and for six years was kept before the public at most of the leading shows in Britain, winning 53 first prizes and championships, while doing good service in the herd as a sire of high-class stock. His dam, Sweet Lavender, is said to have been a deep-milking cow, as was also the dam of his sire (Nonpareil 20th). Yet he was considered a model specimen of a beef animal, with well-sprung ribs and great depth of flesh.

**WILLIAM M'ALLISTER'S BERKSHIRES.**

The Berkshire breeding establishment of Wm. McAllister, Varna, was viewed in our trip through Huron Co., and some very choice and useful animals were shown us. At the head of the herd is the 18-months-old stock boar, First Prize. He was bred by Thomas Teasdale. He was sired by Baron Lee 4th and out of Lady. First Prize is a very superior animal of his breed. He has immense length and depth of body, measuring 6 feet long and around the girth 5 feet 5 1/2 inches, and weighs over 600 pounds. He is perfectly marked and has sufficient bone to carry his weight with ease being very active on his feet, and a very sure and good stock animal. Varna Duke 3771, sired by Star One (imp.), and out of Premier Belle, bred by J. G. Snel, is also a well-marked hog, having good substance and quality, and weighs about 500 pounds. Two yearling sows were shown us that were bred on the place, sired by Varna Duke and out of Belmont. They are a good pair of animals, and won the bronze medal at London last fall, being out of one litter. They are well marked and lengthy. They will be shown again this fall. Belmont is a sow which weighs over 600 pounds, with a litter of six at her feet, only one of which being a female. She is a good type of a sow. Oxford Girl 2373, bred by Thomas Teasdale, is due to farrow in August to First Prize. She is by imported Gladstone 1424, and out of Lady Oxford 1543. In present form she weighs 610 pounds, and looks as if she was capable of reaching 800 pounds. Two eight months sows, out of Oxford Girl and sired by Varna Duke, are a good pair of sows that promise well, and will be bred in July. In all there are seventeen young pigs, which are in a thrifty condition. Mr. McAllister reports sales as being very active, with a constantly increasing demand, and says he will be well-equipped for the fall trade, having seven sows to pig, but at present he considers his stock sold very close. Berkshire breeders will have an opportunity of inspecting the stock at the leading fairs this fall, and will see a good lot.

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