

THE RENOWNED IMPORTED THOROUGHBRED STALLION "KILBURN,"

THE PROPERTY OF J. G. RUTHERFORD, M. P. P., PORTAGE LA PRAIRIE, MANITOBA.

THE FARMER'S ADVOCATE.

EDITORIAL.

The British Government last year paid out £165,000 on account of swine fever.

Clover hay is nearer a perfect ration than any other. It contains 12.3 per cent. protein with a nutritive ratio of 1 to 5.8. Timothy contains 5.9 per cent. of protein with a nutritive ratio of 1 to 16.1. The manurial value of clover hay is \$8.35 per ton, and that of timothy but \$5.03. While clover is the most profitable for hay, it is also the best for the soil.

Mr. Alex. Galbraith, Secretary of the American Clydesdale Association, who has just returned from a visit to Great Britain, where he executed an important purchasing commission for Mr. F. C. Stevens, of Attica, N. Y., whose consignment of Hackneys have reached "Maplewood" in good order, writes us that he found business of all kinds much better in the Old Country than it is on this side of the Atlantic. Referring to "Canada's Glory," he says: "Many thanks for the picture. It is handsome and appropriate, and should act as a real incentive to farmers to continue raising better and better horses."

The French Government has issued an edict which provides that cattle imported into France, other than those intended for immediate slaughter, must, after April 15th, 1896, be subjected on landing to the tuberculin test, and will be kept under obser vation, at the expense of the importers, for not less than forty-eight hours. In the event of the test not being satisfactory, the cattle will be turned back after having been marked, unless the importer consents to the immediate slaughter of the animals under the supervision of the Customs Veterinary Officer. Cattle intended for immediate slaughter are not subjected to the tuberculin test, but can only be sent to the markets of places which possess a public abattoir, and their slaughter must be certified by the veterinary surgeon in charge.

Single Judging.

Single judging is coming more and more into favor in the Old Country year by year. At a recent meeting in connection with a Scottish live stock show, man after man declared for it. To tell the whole matter in a few words, it is considered that if a man is good enough to judge at all he is capable to judge alone. The single judge realizes his responsibility and cannot do other than act accordingly. An argument which may be advanced against single judging is the possibility in very large classes of the one judge overlooking an animal, which could hardly occur with two or three judges. A single judge fit for his position will give more uniform decisions than is likely to be given by more men working together, which is always more educative than when animals of decidedly different types are chosen among the prize winners.

Our Dairy Trade--Suggestions from Abroad. Mr. John Robertson, of Scotland, brother of Commissioner Robertson, of Ottawa, during the course of his recent visit to Canada made a call at the office of the FARMER'S ADVOCATE. Mr. Robertson some years ago, after leaving Canada (where he first learned the dairy business), became Instructor for the Wigtonshire Dairy Association, and subsequently made an extended tour in New Zealand, where the cheese business is making very satisfac tory development. He is associated with Clement & Son, of Glasgow, Scotland, a firm doing an immense business in dairy produce, and his visit to Canada was especially in connection with the extension of their interests here. He went as far west as Manitoba. Mr. Robertson adds his testimony to the fact that Canadian cheese continues to hold its high place in the British market, it being quite common to read in some of the best shops the legend, "Best Canadian Cheddar." Some Old Country Cheddars may, no doubt, fetch higher prices there, but the uniformity of Canadian cheese is a strong point in its favor. English cheese, being so largely made in private dairies, is more varied in its style and quality. White cheese is coming more in vogue, and the demand for a richer cheese is growing stronger. People are not so particular as to where their cheese comes from as they are to get what suits them.

Turning to the other great dairy staple, Mr. Robertson remarks that people here have little idea how bad the reputation of Canadian butter in Great Britain has really been, nor is it a light matter to remove the prejudice and build up an abiding place in popular esteem. He did not say that in years past it had been all inferior, but there was that lack of uniformity constantly cropping up that made butter from Canada a risky article to handle. Australia has built up a great butter trade, and uniformity is one of its strong points. We note by an April Liverpool report that finest American and Canadian butter was quoted from 70s. to 80s. per cwt., while finest Australian stood at from 90 to 92; finest Danish, by the way, standing at from 105 to 110! The Australian creameries are on a large scale, manufacturing being done in large central stations, the cream being brought in from separating stations through the surrounding country. Connected with the creamery is a refrigerator equipment, with refrigerator service on the trains and on the steamships. Cold storage has been brought to a high degree of perfection. Australian butter is very light in color and lightly salted, probably about one half as much being used as in the general run of Canadian butter ; about three per cent. salt and one per cent. preservative is used. While not saying anything in favor of the latter, he said there had been no complaint on that score from the consuming public. That the Australians are able to ship their butter some 12,000 miles and across the broiling equator, commanding, say, 10s. a cwt. more in Britain than butter brought about a quarter of the distance, from America, in the temperate zone, should certainly set us thinking. The British consumer, Mr. Robertson observes, will not have "old butter"; so we see that an excellent system enables the Australian creameries. two months distant from market, to beat the product from America, less than two weeks distant. Freshness is not altogether a question of the number of days that have elapsed since making, but rather a matter of so perfectly controlling conditions that the butter is actually held in the choice, edible condition in which it was when it left the churn and butterworker. It was recently announced that the Canadian Government had made arrangements with steamships for cold storage service, but this is not sufficient, for a summer trade at all events. After leaving the creamery our butter has, in many cases, hundreds of miles of transportation by rail, so that proper train service is absolutely necessary, or the butter might be in oil before reaching the harbor of export. One of our Western Ontario creamery men, who has been shipping to England all winter, complained to us that the lack of regular service on the trains might now stop him. In the next place, once trade is started shipments of butter must go forward regularly (weekly preferred). As to packages, the square 56 lb. box is preferred, particularly in the shops where that form of butter can be so readily cut up for retailing. It is carefully covered with parchment paper, the old plan of putting an inch layer of salt on top being out of date and discarded. We might add that the Australian packages are all branded. Clement & Co. handled some of our Canadian winter creamery butter this last season, which they found excellent, selling to within about which horsemen term quality.

4s. per cwt. of the Danish product, but the trouble was that though it pleased their customers it did not come along regularly. This firm receive and sell on consignment. A great deal of the British summer supply of butter is of home make, also from Ireland and Normandy. The latter sends over a good deal of fancy, unsalted butter. The Australian butter season in England is from November to May, at which time a great deal comes from Denmark also, so that Canada must be prefrom Denmark also, so that Canada must be pre-pared to face this competition. Mr. Robertson, though not expecting high-priced dairy products, either cheese or butter, regards with a good deal of hopefulness, however, the development of winter or noperumess, nowever, the development of winter butter dairying in Canada, owing to the many natural conditions in its favor, and the best results and the best returns to the producer are likely to accrue, if the success of the Australian is any guide, by strict attention to the points indicated above.

Our Frontispiece.

The subject of our front page illustration is the Thoroughbred stallion, Kilburn (imp.), the property of J. G. Rutherford, M. P. P., Portage la Prairie. Manitoba. He was bred by Mrs. Mansfield (Eng.) foaled 1886, imported 1892; registered in the English Stud Book, Vol. XVI., p. 450, and in the American Stud Book, Vol. VI. Kilburn is a rich bay horse with black legs and a white ratch in his face. He has wonderful substance, and although somewhat under sixteen hands, scales, in ordinary con. dition, over 1,200 pounds. He is full of action, bending his knees and hocks like a Hackney ; is a magnificent horse across country, and up to any weight, having pnenomenal bone and being perfectly sound in every particular.

His breeding is of the very best, being by Wapsbury, out of Samaria; Wapsbury by Scottish Chief. out of Mandragora by Rataplan out of Manganese Samaria is by Syrian out of Mrs. Knight by Knight of the Garter, and he traces direct in the female line to the famous Layton Barb mare, who figures as his twentieth dam.

Scottish Chief, the sire of Wapsbury, was a great horse, winner of the Biennial stake at Ascot and Chesterfield stakes at two years old ; at three years old he was third in the Derby to Blair Athol and General Peel, and won the Ascot gold cup and other races. Scottish Chief sired Marie Stuart, winner of the Oaks and St. Leger; Childorick, winner of the Chesterfield, Prince of Wales and Prendergast stakes, and also Doncaster and Royal stakes at Newmarket. He is also the sire of the dam of Common, winner of the 2,000 gs., the Derby, and St. Leger; the dam of Donovan, winner of the Derby and St. Leger; of Melton, winner of the Derby and St. Leger; of Melton, winner of the Derby and St. Leger, and of Semolina, winner of the 1,000 gs. Mandragora, the dam of Wapsbury, is the dam of Mandrake, winner of the Doncaster cup; Agility; Apology, winner of the 1,00 gs. and Oaks. Mandragora is own sister to the famous race horse, The Miner, and to Mineral, dam of Menlock, winner of the St. Leger, of Schwindler, and of Kisher, winner of the Derby and Grand Prize of Paris.

Grand Frize of Faris. Syrian, the sire of Samaria, was a noted miler; won the Mowbray and Bishop Burton stakes at two years old; was second to Adonis for the great Cambridgeshire handicap; won the Chetwynd cup, the Newport cup, and the great Shropshire stakes twice, and many other races. He is sire of Abana, Magdalena, and a host of other good ones. Knight of the Garter, Kilburn's maternal grandsire, won the Railway, King John, Zetland, Eglinton, Bi-ennial and Rutland stakes at two years old; the Triennial, Newport gold cup and Welter cup at Triennial, Newport gold cup and Welter cup at three years old. He won the spring cup at Liver-pool, the Willoughby cup, great Warwickshire handicap, Chester cup and Stewards plate at Chester, and is sire of Omega, Blue Riband, Black Knight, Garterless, Satira, Star and Garter, Tower, Sword, and many other winners. It will be seen, therefore, that Kilburn is full of the best racing blood, and would be quite likely to get superior blood, and would be quite likely to get superior race horses from Thoroughbred mares. This, how-ever, is not the object which his owner has in view. Mr. Rutherford believes that very superior carriage, coach, and saddle horses can be obtained by using a Thoroughbred sire on the better class of general purpose mares, and with this as his aim he has been selecting his mares and breeding only to such as are of fair size and reasonably good quality. The results have so far been very gratifying. At the Portage la Prairie show, in 1894, Kilburn's foals were 1st and 2nd in the carriage class, 1st and 2nd in the results and 2nd in the carriage class. in the roadster class, and although none of his get were placed in the general purpose class, he had some excellent representatives there also. In 1895 his foals were again 1st and 2nd as roadster foals, Ist and 2nd roadster yearlings, and 1st and 2nd in the carriage class. At the Winnipeg Industrial, 1895, but two of his foals were shown. One got 1st prize as a yearling roadster, the other 1st as a carriage foal. At Carberry show, in 1895, as also at McGregor. Kilburn's foals were winners of the red McGregor, Kilburn's foals were winners of the red ticket. He, himself, won 1st prize as a Thorough-bred stallion at the Winnipeg show in 1894, and obtained 1st prize and diploma at Portage in 1894 and in 1895. He is a very sure foal getter, and stamps his progeny with the hallmark of the Thoroughbred—that undefinable characteristic which horsement term and the

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Live Stock Husbandry in New Brunswick.

It is sometimes said that the Eastern Provinces of Canada do not display the same aggressive enthusiasm in relation to agriculture as the West, but for that very reason they are less liable to make the mistakes that arise from undue haste. For years, however, there has been a great deal of quiet work done, through the agricultural societies and otherwise, in our Maritime Provinces in the direction of live stock improvement. By judicious introductions of pure-bred stock the standard of studs, herds, and flocks is placed upon a secure foundation. The Provincial Governments are to be congratulated upon the encouragement they have given this work. For example, New Brunswick not long since commissioned Hon. Mr. Dunn to visit Ontario and make a selection of some 200 or 300 head of pure-bred swine-mostly youngwhich are to be distributed among the various agricultural societies and by them sold under certain restrictions as to use and keeping for breeding purposes, and if found desirable the imporing purposes, and if found desirable the impor-tation will be repeated for two or three years, so that the farmers of the Province will have an opportunity of obtaining upon very favorable terms a sufficient supply of the best available breeding stock required. In this way general and uniform stock required. In this way general and uniform improvement may in a comparatively short time be effected in the herds of the Province. We believe it is the intention of the N. B. Government believe it is the intention of the N. B. Government also, later in the year, to make purchases of cattle and sheep, disposing of them in the same manner as the swine. This would really be repeating the course adopted a few years ago, and which was very successful. There is a very decided desire mani-fested on the part of farmers that this should be done notably in regard to cattle, owing to the dedone, notably in regard to cattle, owing to the de-mand for good dairy cows to supply the factories.

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THE FARMER'S ADVOCATE.

STOCK.

Sheep on the Farm.

The Advantages of Sheep Raising Fairly

Stated -- Practical Suggestions.

ing of our sheep. If we are fortunate in getting them harvested without rain, the straw—threshed

with a flail, and not too cleanly threshed-makes

excellent fodder, but if we have a wet harvest and the straw is damaged we feed the peas unthreshed, and when judiciously fed there is no better feed for

have access to in a roomy yard, and we never had

as strong and healthy lambs. The ewes have plenty of milk and are in fine condition. I know it

will be said that sheep need water and ought to have it, and I do not doubt that a little water would

be good for them, but, on the other hand, I feel sure

that if they had free access to all the cold water

they would take after eating dry and heating food there would have been more danger of sickness

among the ewes and the lambs would not have

been so strong and active. My experience has satisfied me that liberal feeding of roots to in-lamb

ewes brings weak and flabby lambs, especially when the ewes do not get sufficient exercise.

ful. We had a large proportion of twins and lost

Our lambing season this year was very success

lessons of a life-long experience.

To the Editor FARMER'S ADVOCATE:

THE FARMER'S ADVOCATE & HOME MAGAZINI

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED BY

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

JOHN WELD, Manager,

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1. The rarmer's Advocate is published on the first and fifteenth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada

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- postarce.
 12. Replies to circulars and letters of enquiry sent from this office will not be paid for as provided above.
 13. No anonymous communications or enquiries will receive sheep. Of course the feeding must be light, for very little of such fodder will keep sheep fat enough for breeding purposes. For several winters we have kept the most of our breeding ewes at an off farm where no roots are stored, and their only feed up to lambing time has been peas in the straw—no roots and no water but the snow they attention.

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

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short grass, which really suits them best; but is it not a case of "selling the goose that lays the golden egg?"

As to what breeds are most prevalent in this district, we may say, in a word, Cotswolds. We do not know of a single flock of registered sheep of Sheep raisers "have the floor" in this issue of the FAMER'S ADVOCATE, and it affords us pleas-ure to devote considerable space to a subject so closely allied with success in farming. There is a not know of a single nock of registered sheep of any other breed in the county, and very few grades of any other breeds. Cotswolds have held this county almost intact for over thirty years. Of course this does not prove that they are the best breed, but perhaps it is evidence that they are well wited to could and conditions that prevail here pretty free expression of opinion as to breeds and their respective merits, and what to the general reader will prove of great everyday value — prac-tical suggestions to be observed in the pursuit of this important branch of live stock husbandry, which, without the aid of any "booming" process, continues to hold so secure a place in the esteem of thoughtful men. We commend a careful perusal of the views expressed some of which embedy the Other breeds have come and gone, but that does not say that they would not succeed here. The fault may have been in the men who handled them more than in the sheep or the soil, and we are quite sure that such was the case, for I am satisfied that any breed of sheep would do well in this county if given a fair chance. I think it is best that as a rule one breed of sheep should prevail in each district. of the views expressed, some of which embody the It is so in Britain, the home of the breeds, and experience, the best of teachers, has proved it to be best. It may be asked, what are the advantages? One is that if a breed has proven itself well suited to the conditions of a district it is risky to make a Our sheep have come through the winter in much better condition than we expected they would, considering the unusual scarcity of fodder change. Another reason is that breeders having the flocks of others in sight may make favorable on the farm as a result of the extreme drouth of exchanges of stock rams which have proven good sires at moderate prices or by an even trade. Another and an important reason is that buyers are attracted to the district where they can secure struck the Province in the month of May. Clover hay, which is the principal fodder for sheep, was a complete failure, and had we not been so fortunate carloads of the breed they want or can make selecas to get a fair crop of peas we should have been at tions from a number of flocks with less expense a loss how to carry our sheep through the winter and a saving of time. I have been looking at this matter for forty years and I don't see that it is any nearer being settled than it was forty years ago which is the best breed. I have not changed my Our peas were sown late (finished sowing May 23rd) and they never got sufficient rain to wet to the bottom of the inverted sod on which they were sown, but two or three light showers came in time mind, although I think I am open to conviction, as to send them forward when we had almost lost to which is the best breed for me with my environhope of them, and we harvested a nice crop of ments. It is really not nearly so important what bright, clean vines, well covered with sound and good peas. When we have a fair crop of peas we breed a man has as that he makes the best use of the breed he has. have never any fears about the successful winter-

The question has been asked, what is the best The question has been asked, what is the best cross for "spring lamb"? I am not in favor of crossing the pure breeds; I see no good end to be gained; but I am strongly in favor of crossing the scrub with good sires of any of the pure breeds and keeping on with the same cross till the type of the pure breed is fixed and then sticking to it to the end of the chapter. If I wanted "spring lamb" before Christmas I would breed Dorsets or cross before Christmas I would breed Dorsets or cross with them on other sheep, but I can have all the Cotswold lambs I want in January, which is early enough spring for me. I have had them come the last week in December without any effort, and have no doubt I could have plenty of them early in December if I made arrangements to have plenty of fresh green feed for the ewes to go on after their lambs were weaned.

There has been great demand the last two or three years for long-wooled rams for crossing upon the grade Merino ewes of the western territories of the U.S., and we have never known rams so closely sold out as they were last fall. We have about one hundred yearling rams for that trade, most of which were bought in the fall as lambs, besides which were bought in the lan as latitus, besides about fifty grand registered ones of our own breed-ing, suitable for heading pure-bred flocks. Our stock of ewes is not above normal and we have none to sell. The prospect for the sheep business is bright. We don't expect high prices, but good paying prices are as good as assured. Peel Co.

J. C. SNELL.

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Emergency Crops!

From numerous Western Ontario points complaints reach us of destruction of winter wheat and other crops, chiefly those sown on sod land, by the cutworm. Many fields are being plowed up to be cutworm. resown with peas or millet, probably as good crops as could be chosen for the purpose.

Vegetation has been astonishingly rapid, a great Vegetation has been astonishingly rapid, a great deal of red clover being in bloom nearly a week ago, but it is very short in many cases, owing to lack of rain. Old timothy meadows are anything but promising, and our readers where such condi-tions prevail should sow for emergency crops. Last year a big corn crop was the salvation of many a farmer, and it is not too late yet for plant-ing. A crop of millet will furnish grand food for stock, and a patch of rape will be a great help, for stock, and a patch of rape will be a great help, for the sheep especially, in the early fall. Even should the season turn out more favorable later on, the extra folder will save other grains, etc., that may be sold. In any event make provision for a possible shortage.

FARM :-229—Farmers' Institutes; Gleanings from Farmers' Insti-tutes—Division No. 4. 230—Choice Clover Hay; Water Supply for Crops in Drought; Turnips. 231—Clover vs. Corn for Soil-ing; A Barley Blight. ENTOMOLOGY:-231—Injurious Insects—June. has come so opportunely to help those who were so scarce of fodder.

When we consider how little work and expense there is connected with the keeping of a small flock of sheep it is unaccountable that we find so few sheep on the farms of Canada. The plainest buildings are good enough to safely and successfully house sheep. There is no need of cleaning out stables. Very little bedding is needed—the refuse stables. Very little bedding is needed—the refuse of the rough fodder thrown to them is sufficient litter to keep them dry and clean. They are quiet and contented, and always give a fair return for all they get. The ewes duplicate themselves every year, and thus, counting their wool in, pay semi-annual dividends that are as good and as sure as we can reasonably expect from any investment. In summer they do well on the shortest pasture, and they consume a great deal of rubbish in the and they consume a great deal of rubbish in the way of weeds which other stock will not eat, and thus they play an important part in keeping the farm clean. Seven years ago I took up a worn-out farm full of weeds and dirt. I have kept it well stocked with sheep and clover, and it has been restored to fertility and is now one of the cleanest farms in the county. There is a good demand for sheep and lambs for the market, at prices which are relatively at least as good as for any other class of stock; indeed, much better when the cost of production is taken into account. There are fewer breeding sheep in the hands of the farmers of this country than at any time in the last twenty years. Country than at any time in the last twenty years. On a very large proportion of the farms of Ontario there are none, and we have no doubt the same remark applies to all the Provinces. Last fall, in view of the scarcity of fodder for the winter, many farmers sold out all their sheep, and it did seem strange that the part of their stock that would cost least to winter over should be the first to go. The were the only stock on the farms that were in fit condition to sell, for while the cattle and horses were bone poor the sheep had grown fat on the shearling ram at Toronto, and we have seldom only way one can account for it is that the sheep

Sixty Years' Experience With Sheep -- The Merits of the Shrop.

To the Editor FARMER'S ADVOCATE:

SIR,—Pasture, apparently to relieve us from the effects of a scarcity of fodder, made an early growth this season. We have about our usual flock: one hundred ewes, with 120 lambs, thirty shearling rams and same number of ewes. All our shearing rams and same number of ewes. An our breeding ewes are imported, and our stock ram was one of A. E. Mansell's prize rams in 1893. His lambs have been great winners for two years, and we have a beautiful lot of yearlings from him. We have also sixty Cotswold rams; all have gone to the fields in fair condition, notwithstanding we fed

no hay. We think that sheep breeding might be con-siderably increased in this country to the advan-tage of the farmers. In sixty years' experience we can say that our flock has paid its way every year, and nearly always has returned a handsome balance of profit. We cannot say the same for barses cattle or pigs. horses, cattle, or pigs.

norses, cattle, or pigs. The breeds most prevalent in our district are Shropshire and Cotswold. High grades of these two breeds are the common sheep of the district, and they are, of course, the most popular with the farmers for all purposes. Thirty-one years ago we had a few Shropshires, and we liked them very much indeed. We could not sell them at that time, however, for everybody wanted Cotswolds. We silently decided that when the day came, as come it would, when Shropshires were appreciated at their real worth, we would have them to keep and to sell. We could only advise others to do as we have done. No breed of animals has ever been nave done. No breed of animals has ever been spread over the greater part of the globe in such a short time as has the Shropshires. They seem to cross well with all breeds, thrive in all climates, and hold every person for a friend after having a

A CONTRACTOR OF THE OWNER

THE FARMER'S ADVOCATE.

failed to take the same prize when we have ex-hibited since. We have only missed showing sheep a very few times. JOHN MILLER & SONS. Ontario Co.

Why the Southdown is a Money Maker. To the Editor FARMER'S ADVOCATE :

SIR,-I am indeed pleased to notice the derserv ing increase in the circulation of the FARMER'S ADVOCATE, and hope it may continue to spread its usefulness with the growth of our country in the future as it has done in the past.

Although feed for sheep with us was scarce and of rather a poor quality, I am really surprised to see our flock of over one hundred Southdowns now on the grass looking so fine. The demand for rams last fall was so good that we sold off very short, but we have some nice shearlings now. We have twenty-five shearling ewes. I doubt if their equal can be found in America. We never had so good a lot; most of them fit to show anywhere. Our this season's crop of lambs—a good many of them sired by old Norwich Beau, the winner at the World's Fair—are a good lot.

Owing to the depressed condition of the market, both for wool and mutton, it has set farmers to look closer into their business in order to ascertain what cross they could make that would return some profit for the food consumed. What has given, perhaps, the best satisfaction where the ewes had a good deal of the Leicester type about them has been to cross them with a pure-bred Southdown ram; the lambs mature early (a great factor in feeding for profit); they are of good quality and weight that just suits the demand, and are sure to bring the top prices per pound; again, the fleece is a fair weight, of fine quality. In fact, a sheep of this cross will stand good feeding and pay for every pound they eat, or they will endure a good deal of hardship and exposure without serious loss to their

hardship and exposure without serious loss to their owner, being a smart, hardy, healthy sheep, ready to work for a living and "lay up for a rainy day." I have noticed that sheep are generally looking well, notwithstanding the extreme drought of last summer and scarcity of feed during winter, while all other stock as a rule look very thin.

JOHN JACKSON. "Woodside Farm," Lincoln Co., Ont.

The Dorset Preferred -- Superior Grades. To the Editor FARMER'S ADVOCATE :

SIR,—My flock of sheep, some 300 in number, came through the winter in the best shape I ever had them. They are fat, their wool is good, and they have been most prolific in the lambing season. A great many of them have two lambs, and several have three lambs, and are raising them all. I have sold out of my yearlings very largely this season, but I still have about forty yearling ewes and twenty yearling rams. I am having a great many enquiries for sheep already, and I think the out-look is promising. I am sure that sheep raising might be with profit to the farmer carried on to a much larger extent than it now is throughout the various Provinces. I have about 150 breeding ewes of the Dorset family and no other. There are more Shropshires in our county than any other kind, and next to them the Cotswolds are most numerous, and we have a few Leicesters and a few Southdowns, but only a few. In the vicinity in which I live the Dorset grade is the best of the grades. They make larger and finer looking sheep than the Dorsets. Asking my opinion as to what class I think the best, I may say that inasmuch as some years ago

much. While a butcher may like a small lamb, he will not give as much as he will for a larger one in the same condition. When he has done cutting he has done weighing. And from the ewe lambs they keep for the flock they neither get the wool nor the mutton

For my part, I believe a Lincoln is just as good mutton as a Down, if killed under one year; both to be fed the same way on the same kind of feed. If the rich men in the Old Country want mutton four or five years old, they want the Downs. We don't want any mutton that age here, and few could afford to pay for it if we did.

For my section the Lincoln or Leicester are the breeds that will pay the best, taking both mutton and wool into consideration. Those farmers that did not put in the Down cross have some fairly good ewes; by breeding a Lincoln ram on these ewes some of the best of the ram lambs will sell for more than a butcher can give for them. We often have enquiries for this class of ram lambs. Middlesex Co., Ont. J. T. GIBSON.

"Heavy Weights at an Early Age." To the Editor FARMER'S ADVOCATE :

My flock of Oxfords have come through the hard winter in good shape indeed—a long way better than I thought possible after such a severe drought last season. We did not have any hay and very little pea straw for the quantity of sheep. I fed heavier on roots and grain than usual; found the ewes do all right, but the yearlings not so well as if we had had plenty of good clover hay. I win-tered between two and three hundred head; have at present about four hundred head on the farmone hundred and fifty yearling rams and fifty year ling ewes; the balance are store ewes and lambs Raised over a hundred and fifty per cent. of lambs and they are coming on fine; the season has been favorable every way. Since spring opened there has been plenty of splendid pasture. I think the prospects will be fair for next season's trade, at moderate prices. The Oxford rams for crossing for mutton purposes are largely used in this district, as people find they are hardy and come to maturity early, giving heavy weights at an early age. HENRY ARKELL.

"Farnham Farm," Wellington Co.

Good Sheep Prospects on P. E. I.--Exercise--The Leicester Popular.

To the Editor FARMER'S ADVOCATE :

SIR,—My flock of Leicesters go to grass this spring in better health and condition than I ever had them go before. I finished shearing the flock yesterday, and I can say that it is the best wool clip I ever had. I had but one matted fleece, and that was clipped from a ewe that had her leg broken about six weeks ago, and I attribute the matted fleece to her losing flesh so rapidly after the accident. My crop of lambs is coming along in good shape; they are all strong and vigorous and show the good quality of their sire to a marked degree. Although 70 per cent. of the number are twins, their dams have suckled them so well that they are going to the fields in fine form. The reason I ascribe for my flock being in better form than usual at this time of year is that they had more exercise in the open air during the winter season than during any previous winter. On fine days they were allowed to run out as they wished, and on stormy days they were forced to take exercise by being driven around the yard for a time each day. I consider exercise for breeding ewes a necessity in this Province during the long and tedious winters we have here. If well-fed ewes are kept housed continually, long before winter is over they pine for the fields, and it is exceedingly hard to get them through the trying month of April in anything like good shape. As to shear-lings of either sex for sale this season, I have none. The demand for rams was so brisk last fall that I sold all my ram lambs, while of ewe lambs in '95 I had a very small crop, only enough for myself. I am confident that the number of sheep kept by the farmers in this Province might be materially increased with profit. Though the products from the flock have sold low in late years, the same may be said of nearly all other farm products. Still we think, considering the cost of production, that there has been a snug profit in the sale of wool and mutton of late years, and now, with an increase of about 25 per cent. in the price of wool over late about 25 per cent. in the price of wool over late years, the prospect is all right for the sheep raiser, especially if he is raising long-wooled sheep. Then, for maintaining the fertility of our farms, which is so highly necessary, every farmer knows there is no other way to compare with sheep husbandry for that purpose. The outlook for the sheep raiser and the breeder of pure-bred sheep for this season is good; in fact, the sheep raiser in this Province feels better this spring than for several years. As for myself, enquiries have been coming in already for myself, enquiries have been coming in already for breeding stock for the fall trade. The principal breeds bred in this Province are the Leicesters and Shropshires, while the Leicester is much the most popular breed of these two. Leicester rams crossed on the ordinary sheep of the country produce the best lambs for both farmer and butcher. For the farmer, the lambs from this breeding mature early and fatten rapidly; for the butcher, there is no waste or coarseness of carcass, while the pelt is worth 25 cents more than that off a lamb sired by a short-wooled ram, and the butcher considers even that item as so much profit. WM. CLARK. that item as so much profit. P. E. Island, May 21st.

The Care and Feeding of Sheep.

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SIR,—After a year of unprecedented drought my ewes came up in grand form for the winter. As my ewes came up in grand form for the winter. As I do not rely upon grass alone for sheep feed, I had eight acres of rape last year; four acres that I sowed first, on the 10th of June, did remarkably well, as the few plants I took to your office measured 45 inches in length. No sheep man can measured 45 inches in religin. At sheep man can do without rape for a fall pasture, take one-year with another. I had no clover hay, so, for the first time, I had to feed my sheep all winter on corn fodder, and I am very well satisfied with the results. fodder, and I am very wen saushed with the results. My sheep never came out of their cotes in better trim. My corn fodder was of the Southern Sweet kind, sowed thick in drills three feet apart and fed to the sheep cut up with a cutting box at the rate of three pounds per head per day. I find it has a binding tendency on the ewes, and bran or oil cake ought to be fed with it. I would prefer oil cake at present prices.

As for the business of sheep raising, in spite of the low prices, I want to know what pays better on the average farm ? Beef and pork, cheese and butter are also low, but sheep properly handled will give good returns even at present prices, and with far less trouble than any other kind of stock.

In the management of sheep there is one point that I find greatly neglected with the average farmer, viz., the necessity of dipping the sheep in one of the many sheep dips in use now for killing ticks and other parasites that are natural to sheep. I keep on an average 200 sheep and lambs all sum-mer, and have often told buyers that I would give them a ewe if they could find one tick on them. dip my sheep three times a year.

As for the cross to make the best general pur-pose sheep, it is hard to say; we all have our fancies. It is enough for me to say that the more care and attention you give sheep, the better they will pay. The right season for ewes to drop their lambs must be determined by various conditions, such as the locality. If you can sell early spring lambs to advantage, and have suitable buildings for ewes lambing in severe weather, let them come early. You require lots of the best food for your ewes to keep up their supply of milk and so force your lambs along when they will be worth as much at from two to three months old as they would be at six and seven. In districts some distance away from a market for early lambs, the middle of April or beginning of May is a good time. The careful shepherd will see that his ewes and lambs get shelter from the spring rains. I have had a very arge increase of lambs this season; on an average wo lambs to one, and I hear most of the breeders reporting about the same story. W. S. HAWKSHAW.

[NOTE.-With characteristic reserve, Mr. Hawkshaw does not proclaim his favorite breed-the Shropshire—with which, as is well known, he has been so pre-eminently successful.—EDITOR.]

Shropshire vs. Southdown.

SIR,—Replying to Mr. John Campbell's letter in your issue of May 15th, I desire to say that in writing about the sale of lambs from the Iowa Experiment Station I merely gave the figures and called attention to the fact that the Southdown lambs

brought the highest price. The prime object for which this test was made was as to their mutton qualities. They were sold mutton and not for wool.' and the South downs, though less in weight than the Shropshires, brought the higher price; their mutton was the best, that is all there was of it. The fact that the percentage of loss in dressing was greater in the Southdown, even though it was small, is the more evidence that their mutton was better than others. As Mr. Campbell calls special attention to the fact that Shropshire yearlings "outdistanced all by making 62.3 dressed percentage," it may also be noticed that these yearlings weighed 176 pounds and the Southdowns weighed 115 pounds; hence the latter theorem is weighed in weight hence the latter, though 61 pounds less in weight and with a greater dressing lossage, brought \$4.75, while the Stream of the st while the Shropshire yearlings brought \$4.25. Could there be better evidence of the superiority of the Southdown mutton?

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was experimenting in Dorsets, Shropshires, and Cotswolds, I preferred the Dorsets to either of the others, and hence my reason for confining my attention entirely to that class of sheep. Ontario Co. JOHN A. MCGILLIVRAY.

More Sheep Should be Kept in Nova Scotia.

To the Editor FARMER'S ADVOCATE :

SIR,-We do think our farmers could increase their flocks in this vicinity to a large extent, which would prove a valuable investment. We think Shropshire rams crossed on our native ewes do well. J. E. PAGE & SONS.

Cumberland Co., N. S.

Why the Lincoln is Preferred.

To the Editor FARMER'S ADVOCATE:

Our flock never came through the winter in better shape, which is rather surprising to us. We had no clover hay; very little hay of any description. Pea straw, with corn fodder, fed on the snow; oats and bran a month before lambing; roots added to this after lambing was the feed of the ewes. The lambs came very strong. The ewes would have had more milk had they had some clover hay; they are now on good grass; the lambs

growing finely. Our bunch of thirty shearling rams are an extra lot; have had several tempting offers for them. One American said he offered dollars a head more for them than any bunch of rams had been sold for this season.

While the prices of both mutton and wool are low, it would pay to raise more sheep in some sections of the country.

In this district the Leicester was the foundation of most of the small flocks. Some years ago a number of the farmers bought and used Down rams. They were told they would get more money for their lambs; experience tells them they get less, for the reason that the lambs won't weigh as As to "fliching the Shrops. of their world-wide reputation," it may only be said that something cannot be *fliched* from them that they never had, viz., the reputation that their mutton is superior to Southdown. JNO. G. SPRINGER, Springfield, Ill.

Old London's Meat Supply.

Some idea of the enormous quantities of meat consumed in London, Eng., and the source from which it comes, may be found in the annual report, to the Corporation of London, of Mr. N. Stephens, the clerk and superintendent of the Central Markets. He states that during last year 347,283 tons of meat were received there, being an increase upon the supplies of the previous year of 6,326 tons, and yielding an equivalent increase of toll (at a farthing per 21 pounds) of £702. The total toll had been 538,587—viz., from railway companies and their carriers, £24,957 on 224,617 tons; £319 from ship-ping companies on 2,872 tons; £7,191 from salesmen and slaughtermen on 64,723 tons; and £6,118 paid at the rates on 55 060 tons. at the gates on 55,069 tons. The tolls show an in-crease of no less than 171 per cent. on those re-ceived at the opening of the markets in 1869. In regard to last year's tolls, $\pounds 6.946$ was paid in respect of American meat, and £7,441 Australian meat. The supplies were divided as follows :--Country

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FARMER'S ADVOCATE. THE

killed meat, 112,733 tons; town killed, 67,667; foreign meat and produce, 38,912; American fresh meat, 62,107 tons; and Australian and New Zealand fresh meat, 66,719 tons. Compared with the pre-vious year, there had been an increase of foreign meat of 3,862 tons, or 11 per cent., while the supply from the United Kingdom was less by 5,333 tons, or two per cent., and that from America had fallen off to the extent of 9,531 tons, or 13.3 per cent. Those deficiencies had been amply covered by a large increase in the supply of Australian and New Zealand killed meat, of 16,811 tons, or 33 per cent. The supplies from America commenced in 1876, with 5,513 tons, and from Australia in 1881, with 565 tons. From these times the deliveries have enormously increased year by year, reaching the highest totals of 71,638 tons from America in 1894, and 66,719 tons from Australia last year.

Our Scottish Letter.

Legislation.-Parliament is very busy endeavoring to do something for agriculture, and a strenuous effort is being made to push through its stages a bill to alter the incidence of local rating on agricultural subjects. It is hardly possible, nor would it be very profitable, to seek to make plain to Canadian readers what is involved in the proposals now be-fore the Legislature. The method of imposing assessments differs greatly even in England, Scotland, and Ireland, and it is scarcely possible to appreciate all the distinctions without going exhaustively into the whole history of agriculture and land owning. In a new country many of these troubles can be avoided. You start with a clean sheet and can map out in advance the course which youdesign to follow. The usages of an old country are the product of customs and laws of the past, and vested interests have in many things been con-stituted by old established customs and laws. Hence the great complexity of our method of assessing for local purposes and the difficulty of mastering the numerous details involved. The misfortune of the present great debate is that there is a strong disposition in connection with it to pit the urban against the rural ratepayer, and this does not tend to sweeten the wheels of social and political life. The same principles come into operation when the Diseases of Animals Bill is being discussed. Every effort is put forth to make it appear that the urban ratepayer is to be punished in order to better the lot of the agriculturist. This, however, in view of the abnormally low price of agricultural products of all kinds-beef as well as grain-is an argument which carries no weight at all with thinking men. Whatever the effect of the Bill may be, past experience does not suggest that it will raise the price of beef to the consumer. As matters are at present the butcher could very well afford to give the consumer an increased advantage and still be able to clear paying profit. Clydesdale and Shire.—Numerous sales have

been held since last writing of nearly every variety of stock. The Clydesdale sales resulted in the production of an average of about £67 for considerably over 100 head of pedigreed stock of all ages. The Keir stud was dispersed in presence of a very large company, and prices were about as good as could have been expected. The best sale of the series was that from the Edengrove stud, when 450 gs. or £472 10s. was paid for the Macgregor mare, Royal Rose, and was paid for the Macgregor mare, Koyal Rose, and generally very high prices were got for stock after this renowned sire; £113 was the average price for all that was sold. The old contention regarding the relative merits of Clydesdales and Shires has again been renewed. Mr. James Nicol Fleming, who bred Prince of Wales 673 thirty years ago, keeps hammering away at the unfortunate animals which happen to be registered in the Clydesdale which happen to be registered in the Clydesdale Stud Book, and if a good horse appears on the scene which does not register Mr. Fleming at once writes elaborate letters to some papers to show that all the good things of which the horse may be possessed have sprung from some comparatively remote Shire. His greatest at present is the Glasgow premium horse, Prince of Clay, a very good horse, which, unfortunately, will not register. His gran-dam was the old Merryton mare, Flora, by Lilcolnshire Lad, reputed to be a Shire mare, but by no means like the average of such animals. Prince of Clay is, however, strongly inbred to Darnley-his sire's dam and his own dam being both got by that horse. Clearly, then, it is not a wild supposition that the horse owes not a little of his merits to this double cross. Debates after all of this kind do very little good. That a right Clydesdale is a very different animal from a right Shire is a proposition which will at once command assent from any visitor to the great London and Glasgow spring shows ; while on the other hand there is no doubt Shires can be found which are very like Clydesdales, and a few Clydesdales can be found which have some points of the Shire. The man who fancies a genuine Clydesdale is not the man who will fancy a genuine Shire, and vice versa. It is a pity Mr. Fleming cannot find any better occupation than running down the native draft horse breed of Scotland. Ayrshire Cattle have been selling well of late. A strong effort is being made by several breeders, and notably by Mr. Alexander Cross, of Knockdon, to popularize the judging of dairy cattle by results in milk yield and butter-fat, and at Ayr show several bull stirks were sold by Mr. Cross whose pedigrees were guaranteed in this way. The records of their dams and grandams as milkers, alike for quantity and quality, were quoted and the stirks were also tested with tuberculin and a warrant given that they had not reacted. The result was

that six of them were sold at an average price of £45 ls. 6d. each, while four were purchased by a Sweedish gentleman at 78 gs., 42 gs., 37 gs., and 31 gs respectively. At the Lanark Ayrshire bull sale, on Wednesday, high prices were also paid and the quality of the young bulls was of an exceptionally high order. We are inclined to think that the Ayrshire has taken a new lease of life. A dead set is being made by many judges against trashy little beasts with small teats, and good, large-framed, healthy cattle are in demand. This is as it should healthy cattle are in demand. This is as it such "Scotland YET."

The Foal.

If the dam of a foal has to be worked it should in no case commence until the youngster, is two weeks old, and then it is better not to run with her, but be housed in a box stall from the first. This is especially true when the mare has to go on the hard gravel road, as such disease as ringbones, sidebones, and splints, as well as sore feet, are frequently commenced from running on such surfaces. A foal under a month old should not be separated from its dam more than three hours and then it should not be allowed to suck until the dam is cooled. A copious milker should be stripped out a little before the foal is allowed its share, or the overdose may cause digestive derangement. A little fresh grass or clover and a handful of oats and bran will soon be nibbled at when the little fellow is left alone. From the time it is a few days old it is well to handle it, not in a fooling, careless way, but it should be caught and held until it feels safe, though in subjection. A soft web halter may be applied when it is quite young, when its teaching will commence. A few lessons at this age are easily given and are never forgotten.

When the dam can be spared from labor, the run of a good pasture cannot well be improved upon, both night and day, until the approach of very hot weather, burnt pastures, and the presence of flies, when a cool and darkened box stall will make more agreeable quarters during the day. A foal under six weeks old should never be exposed to even a shower, or there will be danger of derangement and perhaps death from inflammation. Remember that a foal is a delicate animal, that only with care will it become a horse fit to fulfill the offices of a useful career.

Prince Edward Island Horses.

BY F. G. BOVYER.

Horse breeding here is in a very depressed state. Few mare have been bred during the last three There are signs of a more hopeful feeling vears. among farmers. As the stock of horses in the Province is diminishing much faster than the in-crease by foals, a scarcity of horses of all sorts in the near future is a certain result. Our horses are well and favorably known in the New England States, both as drivers and draft animals, and are taken to the West Indies and Bermuda. Many of our best mares have been shipped, but large numbers of good, sound, well-built mares are still available for breeding either carriage or draft stock. My opinion is that large mares give the best results in breeding carriage horses, and the very largest are essential as the dams of such draft horses as city traffic demands.

The Province is well supplied with cart stallions of the Clydesdale breed. Some of these were imported direct from Scotland, others were bred here, ams being imported Clydesdale mares of good quality. One of these imported mares is a daughter of the famous "McGregor." She is a hard one to beat anywhere.

Crosses in Horse Breeding.

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To the Editor FARMER'S ADVOCATE :

SIR,-There are some slight signs of an increasing interest in horse breeding in this district. As to the supply of good mares, though very much reduced, there are still some really good animals to be found, chiefly of the roadster type and general purpose sort, with a few moderate examples of the heavy draft. For the last mentioned a good Clydesdale or Shire horse would undoubtedly be the proper cross and the most profitable for the average farmer, while for the lighter mares a Hackney or good Coach horse on the finer sorts, or a Thoroughbred suitable for getting saddle or harness horses on those of the light, carty order, would seem to be the proper crosses in the light of recent experience.

Horse buyers have not put in an appearance during the past winter to any extent, and the present supply of good salable horses is very low, with a scarcity of young draft, carriage or saddle tock coming on. Hillhurst Farm, P Q. JAS. A. COCHRANE.

Good Heavy Mares Not Numerous.

To the Editor FARMER'S ADVOCATE:

SIR,—As to the future of horse breeding, I think the time is not far distant when we will again see good heavy horses a profitable price. There will probably be considerably more mares bred in this vicinity than there were last season. Good mares are not numerous ; many have been sold and few bred lately. This district is noted for its draft horses, although there are also a number of light horses bred. Farmers should breed draft horses; have good, serviceable, heavy mares and breed them to Clyde and Shire sires. There has been a great many horses sold in this section this past winter, and really good heavy horses are scarce. I am certain the supply of young draft horses is so limited, owing to very few having been bred, that we may expect to see higher prices paid for such animals. There are quite a number of young light horses in this section of the country, but not ery many really first-class animals. Huron Co., Ont.

THOS. MCMILLAN.

FARM.

Farmers' Institutes.

The work of Farmers' Institutes continues to receive increasing attention in the various Provinces of Canada and adjoining States. In Ontario Province, for example, we notice that while the total membership on Dec. 31st, '95, stood at 11,020, on April 20th, '96, it was 11,517, an increase of nearly 500 over last ware. North Langerth has the langest 500 over last year. North Lanark has the largest membership in the Province, viz., 330. The date of the annual meetings of the Ontario. Institutes has been changed, and will this year be held on Tues-day, June 9th, at 1 p. m. Supt. Hodson, of Guelph, states that after due deliberation more than 75 per cent. of the Institutes have declared in favor of a meeting early in June, which is a comparatively slack period in farm work. At this meeting reports of the various officers and the Executive Committee are to be presented, officers elected, and suggestions made as to where future regular and supplementary meetings shall be held. A copy of the Executive Committee's report is to be forwarded, as per regu-lations issued, to the Superintendent of Institutes

Standard - bred stallions are here, too, in abundance, and good ones at that ; some of them with dance, and good ones at that; some of them with low-down records and pedigreed to some of the most celebrated trotting stock. We have bred here a considerable number of very fast trotters, but we have not even one Thoroughbred stallion in the Province, and it is a great many years since a stallion of that breed has been in use here. This is stallion of that breed has been in use here. This is the more remarkable as we trace a great deal of the good qualities of our carriage horses to the blood of Thoroughbred stallions which were used on the Island in years long past. There is one good English-bred carriage stallion in use; he was im-ported by Robert Beith, Bowmanville, Ont, and owned by an Island firm. As he is not a trotter, our farmers have little use for him. We need Hackney and Thoroughbred stallions of the best quality. But perhaps the first thing required is the educa-But perhaps the first thing required is the education of our breeders of carriage, roadster, and saddle horses as to the merits of Hackney and Thoroughbred stallions as sires of valuable stock, for if there was a demand for stallions of those breeds there is plenty of enterprise to provide the needed animals.

We require to study the demands of British fashion in horses as in other articles of farm produce. Evidently there is a tendency in the larger American cities to copy English ways in horse manners, so we may catch both markets by pleasing the British buyer. Last summer an English dealer in horses suited for the saddle or cavalry purposes visited this Province. After inspecting a large number of horses at our principal centers for the horse trade, he said he did not see any he wanted, and left with out buying.

The new Agricultural Rating Bill, outlined in the last issue of the ADVOCATE, has passed its second reading in the British House of Commons by a majority of 177, with the promise that it is to

not later than June 20th.

In concluding a circular letter regarding the annual meetings, the Superintendent says: "I wish to thank the officers of the local Institutes for wish to thank the onders of the local institutes for the able and generous assistance they have, as a rule, rendered me in this work during the past year. The year has been the most successful in the history of Institutes in Ontario. We have done more and better work in this Province the past season than has been done in any State of the American Union, and it has been done at less cost per meeting than elsewhere."

Gleanings from Farmers' Institutes --Division No. 4.

Underdraining.-The advantages of underdraining are: It enables us to get on the land much earlier in the spring; experiments have shown a gain of nearly 20 per cent. in favor of early seeding compared with that sown ten days later; the land dries more rapidly after heavy rains in sum-mer, which enables the farmer to cultivate the corn crop more thoroughly; other grain crops are not so liable to rust or blight; crops less liable to be njured by summer frosts ; an earlier harvest and

better quality of grain. Where fall wheat is grown it is not so liable to be heaved by the action of the frost; a catch of clover is more likely to be secured, and is not so apt o be thrown out by the alternate freezing and hawing. Tillage is rendered much easier on heavy soils, as nothing is so injurious to such soils as working them in wet condition. We can apply manure on the surface and have its fertilizing properties washed down into the soil. There is greater comfort in all our farm operations, and the health of all animals on the farm is improved.

In draining, thoroughness is essential. Every tile laid down should not only be of sufficient capacity and laid at sufficient depth for present requirements, but should have capacity and depth enough to carry off whatever water will be

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brought through it in future. It is an excellent practice to use tile one size larger than we think absolutely necessary.

A good outlet should always be provided ; this may be an open ditch, but it should be of sufficient depth to allow the drain to discharge the water freely into it. The outlet should be secured with flat stones or a wooden box, as tiles that are exposed will crumble from the action of the weather.

For lateral drains use nothing smaller than three-inch tile. The depth and distance apart will depend entirely on the soil. In heavy clay soils the depth should be less than three feet and distance apart from 60 to 100 feet.

For digging, only first-class tools should be used. Half-round spades and scoops the proper size for different tile are essential. Be most particular about levelling the bottom of the drain. At least one inch should be removed with the scoop in bottoming for three-inch tile (more for the larger sizes), in order that the tile may lay perfectly solid. Water should be used to get the bottom perfectly even. A fall of one inch in a hundred feet is sufficient if work is properly done.

In laying the tile commence at the outlet, standing upon the tile as you proceed, and give each tile as laid a sharp blow from the heel of the boot, which drives it up tightly against the last one laid. Surface soil should be used to fill the drains for the first six inches, then they may be plowed in. Used a long doubletree and place a horse on each side of the drain.

Select the driest time of the year for draining quicks and soils. Allow the water to run out after each successive spading, and drain those soils as deeply as possible. If the outlet will allow, and it is possible to reach a clay bottom at a reasonable depth, it is better to do so. The deeper the drain is put the more it will accomplish. Cover joints of tile with a tough sod. One thousand tiles will lay sixty rods of drain. Cost of digging and laying ordinary size tile, twelve and a half to fifteen cents per rod with board. MUNGO MCNAB.

Choice Clover Hay.

Seeding, planting, and haying follow in quick succession this season, owing to the peculiarly favorable weather. It is pleasant to realize that haying operations will not be so lightly disposed of this year as has been the case too often lately. On land in good heart, where a good stand of clover or grass has been secured, haying will demand attention within a very few weeks. The folly of leaving the crop standing until the late blooming stage is evident from several standpoints. As the crop approaches maturity it becomes more and more woody and is less palatable and nutritious. This has been proved experimentally and by observation. By cutting early, a good aftermath is assured, and the crop is less exhaustive to the land and injurious to the roots. There is also less loss from heads and leaves breaking off. The object should be to get as much hay as possible in a condition as nearly as can be resembling June pasture, which we all know is the food *par excellence* for milking, growing and fattening stock. Very little, if any, improvement can be made on June pasture for a milch cow. Feed her on dry timothy hay and her milk yield will decrease decidedly ; change this to straw, and she will do worse yet, for the same

reason.

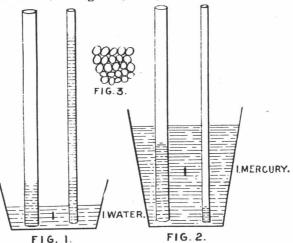
dew or rain upon it. A good means of deciding whether or not hay is ready to haul is to take a few stalks and twist them like rope with all your might. If no little drops of sap tall from it the hauling may commence, provided the day is bright and breezy.

If no little drops of sap tall from it the hauling may commence, provided the day is bright and breezy. It is generally conceded now that there is very little gain in salting even quite green hay, because unless far more is applied than the stock should have it cannot aid the keeping. It is well to avoid tramping clover to any extent in the mow when it is being drawn in. It should be pitched around level, and tramped the next morning before adding any more. When the hay is all in, close the doors and windows and trust to all being well. The mow will certainly heat up to a high temperature, but the hay will not suffer in consequence, but will come out with a flavor and color just right.

come out with a flavor and color just right. With the long-continued early warm weather much of the red clover has rushed into bloom while yet very short, and unless more moisture falls the first crop must of necessity be on the short side. Would it not be wise to mow very early and thus insure a heavy aftermath, which will make up to a large extent the deficiency of the first cut?

Water Supply for Crops in Drought. BY E. F. WHITE, B. S. A., ALGOMA.

If we put the end of a small glass tube into water, the water will rise in it. If, instead of being put in water, a tube is put into a very heavy liquid, such as mercury, instead of rising above the surrounding liquid it will not rise up in the tube to its level (see Fig. I. and II.). The finer these tubes



are the higher the water will rise, while the opposite will be the result in the case of the mercury. That which causes the water to rise is called capillary attraction. That which prevents the mercury from rising is called capillary repulsion. Before going any further it might be interesting the application of the mercury for any further it might be interest-

ing to some to explain the meaning of capillary. Capillus means hair. Capillary means resembling a hair : fine, minute, small in diameter, though long. Thus a capillary tube means a tube that is hairlike.

A glass tube has been taken for purposes of illustration, but you must not think that such a tube is necessary before water will rise. A sponge soakes up water; that is, water rises through and fills the minute spaces which exist in the structure hose large space spo plainly see in it are not filled with water. The oil rises in the lamp-wick by capillary attraction. The minute spaces between the fibers of the wick serve the same purpose as the small hole in a glass tube. The finer the material in the wick, the smaller and more numerous the holes will be and the higher the oil will rise through it. When house plants are watered, very often the water is put into the saucer of the flowerpot. We say the soil soaks the water up; in fact, the water rises through the spaces between the particles of soil (see Fig. III.). The finer the soil the smaller these spaces will be and the higher the water will rise, as it did in the glass tubes. It is well known that plants on a sandy soil suffer during a dry season much more than those on a clay or loamy soil do. This is due to the spaces in the latter being much finer than those in the sand, as the particles are not nearly so large. This being the case, they hold water much better when they have it, and then the water will rise much more readily from the water level. In this way, during a dry time the plants on clay may be getting water from below, while those on sandy land may die for want of it. Now, if we understand some of the forces which influence the rise of water in a substance, we need to know two more things, and then this knowledge may be useful on the farm. First : What can we do to put the soil into a condition that is favorable to the rise of water from the water level; then what can we do to prevent it from evaporating at the top, so that the crop may get the benefit of the moisture? The spaces need to be small. Thus, to roll land that is too loose, as sand or other land that has been will have noticed that land that is drained never suffers as much during a dry season as does un-drained land. I have seen places where a person could distinctly notice that the crop beside a drain was better during a drought than the crop farther off. What is the reason of this? An underdrain

attraction, but that which lies in the larger spaces, and which, if allowed to remain, is injurious to plant growth. Land that is not drained will often be water-soaked during part of the season; and when it does dry out, will leave the land full of cracks, which tend to prevent the water from coming up, and allow it to evaporate more quickly. On the other hand, land that is well drained is left in a condition much more favorable to the rise of water by capillary attraction from the water level.

After doing as much as we can to put the soil into a condition favorable to the rise of this moisture, we need to do as much as we can to hinder its evaporation at the surface. Most farmers have seen a mulch of rubbish, chips, straw, or some other loose material put around fruit trees to keep the ground moist in dry weather. The water does not rise through this loose stuff, and is largely protected from the wind and sun's rays and does not evaporate; as a consequence the soil keeps moist. A well-worked summer-fallow, on clay or loamy soil, will be moist even if rain has not fallen for some weeks. The same way with land in roots or corn if they are scuffled every few days. Not so if they are only cultivated now and then, when the weeds seem to demand it.

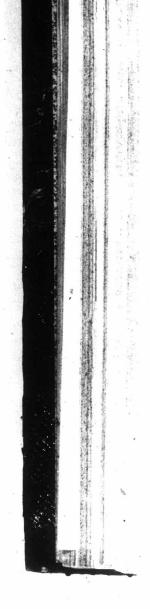
Now, some may say that land that is worked up dries out. That is true in regard to the portion of the soil that is worked ; but this need be only one, two or three inches, and these few inches of loose soil at the top serve the same purpose as the chips and the like around the fruit trees. It prevents the moisture from coming right to the top and protects it from being evaporated by the wind and sun. In this way we keep it in the proper place for the plant to make use of it. This explains the reason that there is such an advantage in surface cultivation during dry weather. The drier the weather, the oftener will it pay us to cultivate such crops as permit of it.

For instance, take corn. It is a very simple and easy thing to plant it so that it can be cultivated both ways with a horse. Last year I helped to plant corn. Shortly after it came up we commenced to cultivate it, and during the dry season it was cultivated every week. It grew straight ahead and did not suffer in the least from the dry weather. I saw many other fields that seemed to have been cultivated only now and then to keep down the weeds, and they certainly showed to have suffered. Potatoes and roots were the same. By constant stirring of the surface soil much can be done to compensate for a lack of rain.

done to compensate for a lack of rain. Generally speaking, if the rainfall is abundant during the summer we have good crops; if not, our crops are poor. People often think of the moisture in the soil as altogether due to the rainfall; and as they cannot control this, they have thought that they could not guard against loss by drought; but by understanding capillary attraction and how to avail ourselves of its aid, we will be able, in many cases, to greatly lessen the evils which result from a lack of rain.

Turnips.

Owing to a rush in the direction of corn growing and the use of the silo, the very important turnip crop has been to some extent lost sight of. Nor is this to be wondered at when the two crops are considered side by side. While the turnips furnish a large amount of succulent, healthful food which can be only a supplement to other fodders, siloed corn supplies in itself almost all the ingredients necessary to a perfect stock diet. Not only are the elements present in about the right proportion, but succulence and palatability are also found in the ensiled food. While this is a great advantage on many farms, we would never think of dispensing with the few acres of Swedes. For dairy cows they are not so desirable, but all other stock, especially the growing animals, from the inhabitants of the hog pen to the noble horse, are the better of a few turnips during the winter season. Especially is this true where the silo is not in use, because then the succulence found in the turnip does much in providing a relish and in aiding the digestion of the dry foods, such as hay, straw, and grain. So highly are Swede turnips valued in England and Scotland, nothing could induce stock farmers in those countries to replace them with any other crop. In the course of fattening beeves almost all the Scottish feeders make turnips the principal part of the diet. These, with good oat straw, fed wisely, bring many of the "prime Scots" to almost the finishing period, when a little "cake" and crushed oats are added to the ration. Many of the the most extensive Clydesdale breeders, too, place great dependence upon "neaps" in the bringing up of their favorites. The two crops are alike valuable as land cleaners, and they are also alike in requiring well-manured land in order to yield a heavy return. By the time this reaches our readers the corn crop will or should have all been planted. Turnip drilling next claims attention. In former times the rule with our best turnip growers was to sow from the 10th to the 20th of June, and, indeed, not a few still hold to that plan, on the ground that early-sown turnips are more liable to be eaten off by the beetle or fly, and also that they are more liable to rot during the winter season when they finish their growth so much earlier. They are also more liable to infestation by lice during dry autumns. The old practice is however, being dry autumns. practice is, however, being changed in some dis-tricts, as many exceedingly successful turnip raisers are now sowing during the last week in May or as soon as they can get the ground ready.



In cutting clover it is well to take narrow strips parallel with the furrows, which is easier on the machine and team, and the field can be tedded, raked, and drawn more conveniently than when the whole field is gone round and round. While a soaking rain on partially cured clover is very destructive, over-drying in the scorching sun is very little less harmful. To hasten evaporation the tedder should be set to work a few hours after cutting, and when wilted it should be raked into windrows, where the drying may continue if the weather is just right. From these it may be drawn in. This saves the labor of cocking and answers well generally. The matter of saving a little labor, however, is not as important as to secure what will produce fat, milk, and muscle to the best advantage. When the weather is at all uncertain, the surest way to make hay excelling in color, aroma, and feeding is to cock it in the field. This should be done before it is ready to draw, as the curing process will continue in this condition. After each cock is make, having placed each successive forkful directly on top of the others, the sides should be raked down by the inverted fork, leaving the outside stems pointing downwards. If rain is impending, all the energy of the hands should be applied to getting the hay into cock. Avoid its getting wet, if possible, as it means extra time and labor and a poor quality of fodder.

As the hay was put up too green to haul, the cocks should be opened out to the sun and wind a few hours before commencing to take in. This requires a little extra work, but the difference between hay allowed to cure in the swath by exposure to the sun and that made by cocking early well repays all the extra labor involved. The stalks are soft and sweet, the leaves are not broken off, and the entire crop is of a beautiful color and as tempting as June pasture. The hay loader will not work so satisfactorily in heavy clover that is not almost over-dried, even if left in the windrow, but a horsefork or sling in the barn saves much heavy labor and hastens the hauling. Even though consider able sap is not evaporated, there is very little danger of its becoming musty, provided there is not

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THE FARMER'S ADVOCATE.

One advantage of the late sowing is that it furnishes a great opportunity for weed destruction before the crop is sown, and while this is going on, by means of the cultivator and harrow, the land is being put into the best possible condition to receive

the seed. The mode of culture and sowing is pretty generally the same on different well-tilled farms. As already mentioned, a liberal dressing of manure is a necessity on land usually sown to this crop. The time of application varies greatly on different farms. While some stick to the old plan of manur-ing in the fall, we find that many are changing their time of application to winter or spring. Many who preferred March as their month for this work were unable to carry out their desires this spring because of the continued rough weather. The next opportunity presents itself at the end of grain and corn sowing and potato planting. The great pity is that this year, especially in the Province of Ontario, there is far too little manure to apply to any crop. Having the manure plowed down not more than five or six inches, harrowing and rolling should at once be done, and then a little time allowed for the germination of weed seeds. When a green cast is noticeable over the field the cultivator should be put on, followed by the harrow and roller. The piece may then be left until the time of sowing, when the ground should be care fully plowed a little deeper than the manure was This should be harrowed well within a few buried. hours of plowing, then rolled, ridged up, and sown in quick succession. The ridges are best made by means of a double-moldboard plow. It is not well to raise them more than five or six inches at most. Only first-class seed should be sown, of the varieties most highly spoken of in the seed grain reports published in March 16th issue. When the land is moist and mellow, from a pound and a half to two pounds of seed per acre is sufficient; that is, when sown in drills 28 to 30 inches apart after the 15th of June. Before that time it is well to sow a little thicker to feed the beetles that are almost certain to be present. Thin sowing aids the singling very much. Seed drills that roll the rows should be used, and this should be again run over the drills after sow ing, to fit them to better retain moisture.

It is not well to commence thinning until the plants are at least about three inches high, as by that time they will have sufficient root-hold to take no harm from falling down by having the earth drawn away from their sides. The field should be scuffled before thinning and frequently afterwards, to provide thorough surface cultivation, which is so necessary to the best results.

Clover vs. Corn for Soiling.

An extended series of experiments with legu minous and cereal crops for soiling purposes was conducted during the summer of 1895 at Storrs (Conn.) Agricultural Experiment Station. The object was to compare fodders rich in protein with those containing less of this important element in their effects upon milk and butter production. The foods high in protein were mainly legumes, and consisted of oats and peas, clover, soy beans, cow peas, rowen, and barley and peas. The other line of foods was made up of cereal fodders, consisting of green oats, Hungarian grass, and corn fodder. Seventy pounds of most of these crops were fed per cow daily, although eighty pounds of the corn were used. Two pounds of wheat bran and one pound of corn meal per cow were fed daily in connection with the green fodder.

ENTOMOLOGY.

Injurious Insects--June.

BY JAMES FLETCHER, LL.D., F.R.S C., ETC., OTTAWA. The month of June is not only the season when all vegetation seems to make a sudden rush forward to maturity, but also the month when insects of all kind are most noticeable. The fruit grower and farmer must be at work early and late if he would successfully prevent injury to his crops by his insect enemies. Fruit trees must be sprayed with Bordeaux mixture and Paris green if fungous diseases and leaf-eating insects are to be kept in check.

Early in June, in most parts of Canada, the young emerge from beneath the old scales of the OYSTER SHELL BARK LOUSE of the apple, and this injurious pest can be easily destroyed at that time if the trees be thoroughly sprayed with a kerosene emulsion wash made by diluting the ordinary stock emulsion with nine parts of water.

Spraying fruit trees is now so generally practised by progressive fruit growers that it is unnecessary to devote much space to pointing out the benefits of this operation. It has been shown by many experiments the extraordinary advantage which follows the spraying of apple trees with Paris green, 1 lb., fresh lime, 1 lb., and water, 200 gallons, to prevent injury by the CODLING MOTH. This spraying must be done within a few days after the blossoms fall. The same mixture sprayed over plum and peach trees prevents to a large measure injury by the PLUM CURCULIO. Another pest of the apple orchard, which may be successfully treated by spraying with Paris green in June, is the CANKERWORM, the green or brown caterpillars of which sometimes strip whole orchards of almost every leaf, leaving the trees brown and sere as though scorched with fire.

The second brood of the IMPORTED CURRANT WORM appears during this month, and a close watch must be kept so as to treat the gooseberry and currant bushes with hellebore as soon as the caterpillars show themselves. For the first brood, which appears in May, Paris green may be used, but for the second brood, which comes when the fruit is almost full-grown, this poison is too dangerous, and hellebore must be used. This latter is a vegetable poison and soon loses its virulence when once wetted, either when applied in water or when moistened two or three times by the dew. The injury to currant bushes consequent on allowing them to be stripped of the their leaves is not confined to the year when this injury is done, but bushes stripped one year only produce small and inferior fruit the following season.

In the vegetable garden the most troublesome June pests in all parts of the Dominion are certainly the many kinds of cutworms. These are dullcolored, smooth, greasy-looking caterpillars. The head is smooth and shining and sometimes of a different color from the rest of the body. They do their injuries at night time, and lie hid by day beneath the soil; frequently much harm has been done before their injuries were observed. When full-grown these caterpillars change to a chrysalis in the ground, and eventually issue as inconspicu-ously-colored, active moths. The habits of most ously-colored, active moths. kinds of cutworms are probably as follows: The eggs are laid by the female moths in autumn late summer, and the young caterpillars ch and make part of their growth in the auor before the farmer and gardener come out from their hiding-places by day and cut off young plants just at the surface of the ground, and then, burrow ing a short distance into the soil, devour the cut-off plant at their leisure. There are two remedies which may be successfully used against those which work in this way. One is to wrap a piece of paper plan referred to is known as "poison traps," and this plan is very popular with all who have tried it. cutworms are attracted to them to feed or for shelter, and large numbers are thus easily destroyed. A plan of a similar nature has lately water to make it adhere slightly. A little of this mixture (about a teaspoonful) is put at short dis-tances along rows of beets or other plants, and is claimed to be very attractive to all kinds of cutworms. It has been used at the base of orchard for the ordinary varieties.

natch and make part of their growth in the au-tumn. They pass the winter in a torpid condition, and are ready to attack any young vegetation as soon as it starts in spring. There are many kinds of cutworms, and these differ somewhat in their habits; but most of those which come prominently before the former and cardoner come out form around the stem of young plants when putting them out in spring so as to leave a collar an inch above the ground when the plant is set. For tomatoes and cabbages old tomato cans with the tops and bottoms melted out form a perfectly impenetrable barrier to all cutworms. The second this plan is very popular with all who have tried it. It consists of tying up bundles of weeds, grass, clover, or any other succulent vegetation, and, having dipped the bundles in a strong mixture of Paris green and water, placing them about at inter-vals on the surface of the infested ground. The been adopted with good results. It consists of mixing enough Paris green with bran to give it a greenish tinge and then moistening it with enough trees for climbing cutworms, as well as in gardens

a great deal of attention lately in Western Ontario. Several correspondents have sent in the dirty white or greenish white caterpillars, with accounts of their serious injuries to fields of oats, barley, and wheat. Last summer, too, wide-spread complaint was made of their injuries to corn. These caterpillars are about 14 inches long, of a dirty white color, with chestnut colored heads. They are most destructive to crops grown on sod, because, the natural food being grasses, the eggs are laid by the female being grasses, the eggs are laid by the female moths on the meadow grasses the previous year, where the young caterpillars will have a supply of food. Unfortunately, it is almost impos-sible to suggest any remedy short of plowing up the crop and sowing something else which can be put in later, such as Hungarian millet, buckwheat, or possibly late turnips. The moths from which the caterpillars which are doing so much harm this spring originated are beautifully - marked creatures with soft tints of red and gray, which is well illustrated in well illustrated in



the accompanying cut. They were so abundantlastJune and July that fre-quent letters of complaint were received. They swarmed into houses at night

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and made themselves obnoxious in many ways, getting into food and dirtying house linen and papers, flying into lamps, and giving great trouble to shop-keepers by requiring frequently to be swept out of the windows.

DAIRY.

Care of Milk, from the Cow to the Cheese Vat.

BY T. B. MILLAR, INSTRUCTOR FOR THE WESTERN ONTARIO DAIRYMEN'S ASSOCIATION.

Of late years so much has been said on this subect that it almost seems like presumption on my part to say anything further about it, yet in connection with my work in visiting cheese factories I found during the past month that a lot of milk delivered at the factories might have been in a much better condition if the patrons had paid a little more attention to the care of it.

At this age of low prices it should be the aim of every one connected with the business not so much to increase the quantity but rather to improve the quality, and as the patron of a cheese factory is an important factor in the production of fine cheese therefore it behooves all patrons to take the best possible care of the milk, thus enabling the cheesemaker to turn out a fine article of cheese.

Good Food and Pure Water.-The care of milk should begin with the person who feeds and takes care of the cows. The cows must be supplied with suitable food and an abundant supply of pure water to produce good milk ; without these it is impossible to get first-class milk.

Cleanliness.-Owing to the scarcity of straw for bedding last winter a great many of the cows are

Two groups of cows of three each, as nearly alike as could be well obtained, were chosen for the experiment, all of which had calved within four months previous to beginning the test. A two-days' supply of fodder was brought in and weighed at a

time. The results of the experiment show that the best results on quantity of product were obtained from rations relatively rich in protein. Although one-seventh larger rations of corn fodder were used than of those rations made up mainly of the legumes, the latter generally gave larger yields of milk, of butter-fat, and of solids in the milk.

Digestion experiments conducted with sheep indicated that the legumes not only contain larger quantities of protein when harvested than the cereal fodders, but that they are also more thor-oughly digested. It can therefore be concluded that as a rule the best crops for early summer feeding seem to be those of the pea and clover family, containing a relatively large amount of nitrogenous matter. Although smaller yields are usually obtained with the legumes than with fodder corn, the fodder from the legumes than with total nitrogen and protein and a larger percentage of this protein is digested by the animals, and hence these fodders are of more value in the production of milk, cheese, butter, and beef.

A Barley Blight.

SIR, - Your favor of 14th inst. duly received with stalks of barley affected, apparently, with some sort of blight. I observed the same thing in a few patches in our spring wheat, oats, and bar-ley. I called the attention of Mr. Harrison, our bacteriologist, to the matter. He finds the roots and center of plants all right; it is simply the tips of the lower leaves that are affected with blight, caused no doubt by the unusually warm weather caused, no doubt, by the unusually warm weather in beginning of May, which hastened vegetation while the soil beneath was cold. I do not think this will materially injure the crop. WM. RENNIE, Ontario Agricultural College.

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There is a class of cutworms which have rather different habits from the above, because they spend the greater part of their time in the soil, feeding on RENNIE, the roots of grasses, and are sometimes very destruc-Farm Supt. tive to the small grains. One of these has attracted

coming out this spring in a very dirty condition. Care should be taken to see that the udders are washed or brushed well before milking is commenced, and do everything as cleanly as is possible. Strain the milk immediately after milking, then, as soon as possible (the earlier the better), air well, in a pure atmosphere, by dipping or pouring the milk from one pail to another; continue this for fifteen or twenty minutes after the milking has

fifteen or twenty minutes after the mining has been completed and occasionally during the even-ing and again the first thing in the morning. *Airing.*—The morning's milk should be aired before mixing with the night's mess, at least for a few minutes, to allow the animal odor to escape. It is quite as necessary to air milk in cool weather is to allow the milk will keep sweet in the It is quite as necessary to air milk in cool weather as in hot, although the milk will keep sweet in the cool weather without airing, but the airing will improve the flavor, and a can of bad or off-flavored milk is more objectionable than a can of nice-flavored milk partially soured. And bear in mind that if milk is properly aired and kept in a place where the atmosphere is pure it will keep sweet during the hottest night in summer without cool-ing by the use of water or ice.

ing by the use of water or ice. A Bad Practice. - A mistake that a great many patrons make is putting the milk can in a tank of water before they commence milking and pouring in the milk as it is milked, without straining or airing. The milk is thus cooled down to the temperature of the water and allowed to stand in that condition over night. Although this milk may be delivered sweet, yet it is in a very bad condition, as any germs or bad odors that were in the milk are any germs or bad odors that were in the milk are still in it, and as soon as heated will produce very bad flavors. The time to get rid of these germs is immediately after milking, by straining properly and airing thoroughly. After airing, but never before, if it is thought desirable it may be placed in water for a short time to reduce the temperature to the desired point.

The Milk Stand.-Milk keeps better in small quantities, and should be kept in a clean place. Never leave it on a stand by the milking-yard,

THE FARMER'S ADVOCATE.

barnyard or hog pen. Some may say it is quite unnecessary to mention such places as these. No one would think of leaving milk in a place of that description. But I have seen lots of cans left over night in just such places, and in places where you would expect the people to know better. Still, they did not apparently think it would do the milk any harm.

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Pails and Cans — Only tin pails and cans should be used, and they should be washed well and thoroughly scalded as soon as possible after using. After scalding do not use a cloth to dry them. If the water is as hot as it should be they will dry off themselves. Place them where they will get plenty of fresh air and sunlight. Never use soap on any vessel used in the dairy, as it is apt to leave a soapy flavor. Salt will do the work just as well and gives better results.

Preparation of Cream for the Churn.

[Compiled from a paper by T. C. Rodgers, Guelph Dairy School read before the Cheese and Butter Makers' Convention.]

To have success in manufacturing the finest quality of butter it is important to possess a knowledge of the chief factors employed in the cooling, ripening, and preparation of the cream for the churn. This commences with the separating and continues until the cream is transferred to the churn.

With regard to the temperature of ripening cream, we have learned from our own and the experience of others, that the lower the temperature at which cream can be ripened so as to develop sufficient lactic acid within a reasonable time, the better will be the texture of the butter. To this end the use of ice and a proper cooling vat having a surrounding space of seven inches for ice water are necessary. Cream ripened and churned at two high a temperature will produce butter of a soft, oily texture, that will diminish its value.

The most satisfactory temperature at which to ripen cream is 60° in winter and a little lower in summer, as the milk at that season contains more lactic acid when separated. At these low temperatures enough starter should be used to produce sufficient ripening to cause it to turn thick six or eight hours before time of churning. We advise the use of a "starter" because it controls flavors and gives uniform ripeness and flavor to the cream from day to day. The starter should be put into the cream vat

when separation commences, in order to control The quantity to use varies from two to flavors. ten pounds to 100 pounds of cream, according to the ripeness of the milk and the time allowed for the cream to ripen. When the cream is to be held for two days before churning, it should be cooled to 52° in winter and 50° in summer, about half the usual amount of starter being The cream should be stirred frequently used. during the first six hours, and temperature kept uniform. Our starter is made as follows : Take one gallon of skim milk or whole milk, of good, clean flavor, for each ten gallons of cream to be ripened. This is set in a vessel of boiling water and heated to 160°, stirring constantly; then re-move from the hot water and let stand for twenty minutes, after which cool to 75° or 80° and add er, having about a quart of the old start clean flavor, together with six quarts of clean water at the same temperature, to each ten gallons of the pasteurized (heated) milk. Then mix well and set in a clean, warm place. Do not stir until ready to use it, then break up fine by pouring or dipping before straining into the cream. The cream should be cooled to churning temperature at least one hour before churning, to harden the fat globules. The lower the temperature at which cream can be churned in from 40 to 60 minutes, the better will be the texture of the butter. The richer the cream up to a certain point, the lower temperature can it be churned. The best results are obtained when the cream contains about 30 per cent. of butter-fat, when it can be churned at about 52° to 54° in winter and 50° to 52° in summer,

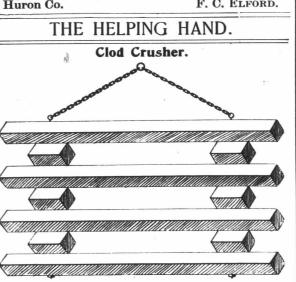
local inspectors, both in theory and practice, have to be thoroughly qualified, and must hold diplomas, based not only on dairy school training, but actual results in factory work and management. Their salaries amount to about \$500 each (one-half of which is paid by the Government) and board per year. Messrs. Bourbeau and Plomondon are also engaged in the Dairy School at St. Hyacinthe, through which now pass some 300 or more pupils each win-ter. When the excellence of the Quebec grasses and water and the general richness of the milk are taken into consideration, together with the thoroughness of their system of instruction and inspection, it need not be wondered at that cheese dairying in that Province is steadily forging ahead. The fact that the above gentlemen, who are keenly observant and practical, have been delegated to gather the best points of Ontario practice shows that the Provincial authorities there are wide awake to the dairy necessities of the times. The tendency in Quebec is to make white cheese, the quantity of colored growing less each year. Most of their April make was sold at $7\frac{1}{2}$ cents per pound. Far more factories pay for milk by percentage of butter-fat, according to the Babcock test, than in Ontario, and the number is increasing with gratifying results.

Parchment Paper for Butter Packages.

Dairymen were not slow to appreciate the merits of parchment paper for pound prints of butter, and it is coming into more general use for larger packages. Australia uses it for lining the butter boxes, bottom and sides, as well as covering the top, and we notice in the New York *Produce Review* that one butter house in that city recently gave an order for enough paper to line 30,000 packages. The advantages in its favor are a great saving of loss in weight of butter, protecting the butter from the air, preventing its sticking to the wood, and preserving the outer portion from taking up a "woody" flavor. If the tub be properly soaked and the paper wet there is no great difficulty in lining the sides smoothly, just like hanging paper on a wall.

Alfalfa Will Improve the Flavor.

To the Editor FARMER'S ADVOCATE: SIR,—In the ADVOCATE of May 15th I noticed E. D. Ault asking if alfalfa would flavor the milk. We have grown alfalfa for a number of years; this year are using it as a soiling crop for milch cows, and as they get very little else we have a good chance to tell if it does flavor the milk or butter. We could never yet detect any, but, on the contrary, think it improves the flavor. F. C. ELFORD.



POULTRY.

JUNE 1, 1898

Fertilizing Eggs.

The breeding of fowls on the farm is perhaps the most haphazard and least understood portion of the whole stock breeding operation. When it is desired to obtain chickens from a certain male, he should be allowed to mate from four to six days before the eggs should be set. This time varies according to the vigor and stamina of the fowls. A fairly safe course to follow is to separate the hens to be bred from any male for a period of six days; then admit the male, and at the end of four or five days the eggs may be kept for hatching.

DISCARD THE MALE.

It will not be long until the hatching season will have passed, when the males and females should be separated permanently for the season, for good reasons.

First: A male bird, or any other that is of no use, consumes food that laying hens and growing chicks require. The question may arise, What is to be done with him? Well, upon pure-bred poultry breeding farms there are always separate pens in which the cocks may be kept, and on the ordinary farm there is no advantage in keeping the same male or males longer than one season, or inbreeding will result. Would it not do, then, to behead the cock at the end of the breeding season and make a pot-pie of him? The hens may miss him, but they will lay just as many and better eggs when his presence is not in evidence.

The second reason for his separation from the flock is that already mentioned - the eggs are of better quality. Addled or off-flavored eggs are pretty well known on every farm during the hot summer months, and perhaps the greatest loss from this source is found in the marketing. Not only is the consumption of eggs in the cities and towns much lessened by the uncertainty of how the socalled "fresh" eggs will break, but for baking purposes it is found necessary to buy perhaps 18 eggs, as offered upon the average market, to get a dozen fit to use. This sort of thing disgusts people to the extent of causing them to use comparatively few eggs. Now, an unfertilized egg will keep fresh and in first-class order for weeks, even in the hottest weather; in fact, they may be used for baking purposes after having been set beneath a hen for the three weeks. We will venture to say that if un-fertilized eggs are regularly supplied to any first-class grocer for one season he will willingly pay a price considerably above what the market offers in following years rather than do without them. There is a large class of consumers in every large town or city who are willing to pay the price for a positively unmistakable superior article of food.

Young Turkeys.

While there are advantages in having early hatched fowls, there is usually not much gained by having young turkeys before the summer has made a fairly good start. Newly hatched turkeys are so very delicate that the least adversity at the beginning of their career is certain to bring about serious loss. Even in the most favorable weather the less they are handled or fussed with during the first 21 hours of their existence outside the shell the first 24 hours of their existence outside the she better for them. It is altogether wise to allow nature to take its course, when the mother turkey will in all probabality remain on the nest for about 24 hours, at the end of which time she should be cooped in a large, clean coop, with a board floor covered with sand. If the young poults are hatched them in custody during the evening or she may have rambled to the fields by the next morning. Wet is particularly fatal to young turkeys. As young turkeys make such rapid growth of fourther more than a particularly fatal to a particularly fatal to young turkeys. feathers when young they require constant care and liberal feeding to enable them to withstand the great demand upon their system. Boiled egg, chopped finely, answers well along with other food, such as stale bread crumbs mixed with a small amount of new milk. Onion tops or lettuce chopped up finely and mixed with their food occasionally will keep their system in fine growing condition. Sweet milk should be given them occasionally, and fresh water should be always before them. As soon as the brood has all feathered out they are very hardy and can usually take care of themselves if allowed the run of the fields. It is well, however, to have them housed at nights to prevent their destruction by skunks, foxes, and other fowl destroyers.

JUNE 1,

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⁶ Cream that has been lowered below the desired churning temperature should be very carefully warmed by surrounding the cream vessel with water at a temperature not higher than 65°, and then the cream should be constantly stirred.

Buttermakers must adopt low and uniform ripening and churning temperatures to obtain a firm, uniform quality of butter.

Advanced Cheese Dairying in Quebec.

The FARMER'S ADVOCATE had a call a few days ago from Messrs. E. Bourbeau, General Inspector, and J. A. Plomondon, Assistant, representing the Quebec Dairy Association. They have been visiting the best dairy districts of Ontario, collecting information as to factory management, cheesemaking, selling, etc., and also with regard to road improvement. One of the defects in the Quebec dairy system is the smallness of many of the factories, which better roads would tend to correct. The syndicate system is growing steadily, and is giving good results, each syndicate being under a local inspector or instructor, of whom there are now some thirty-eight. All these are in turn subject to the inspection and instruction of the General Inspector and his assistant, above named. The

JOHN TAYLOR, JR., Waterloo Co., Ont .:- "The scantling drag or clod crusher herewith illustrated we have found to be a most useful home-made implement. Take four 4x4-inch oak scantlings eight or nine feet long, also six blocks of the same stuff about six inches long. About twenty inches from each end of the scantlings bore ‡ inch holes from corner to corner; the same with the six blocks. Put a long $\frac{3}{4}$ -inch bolt through each end. as shown in illustration, with a ring or hook on one end to attach draw-chain to. The draw-chain end to attach draw-chain to. The draw-chain should be of sufficient length to keep the whiffletrees three and a half or four feet off the drag, so that you will get the full benefit of the drag and not raise the front side off the ground. An old box with a couple of cleats on the bottom may be set on top to furnish a seat for the driver. We find it a most useful implement to run over the ground with to grind down the small clods, level the sur-face, and thus make a fine seed bed. It has many advantages over the plank clod-crusher. It is easier made; will not 'choke up'; if it becomes a little warped or worn it can be turned upside down or a set of holes can be bored at right angles with the present ones and the rods put in them and it is as good as new; by taking off the nuts at the end of the two rods it can be taken to pieces and stored away. Ours is nine feet long and a four-scantling one. Were we making another we would make it about six or seven feet long and put in five scantlings instead of four."

Colorado has a woman for dairy commissioner, and it is said that she discharges the duties of her office to the entire satisfaction of those interested. —Creamery Gazette.

Col. Harris, the well-known Shorthorn breeder, of Kansas, points out the folly of breeders sinking their individuality to the point where it was held that any strain of cattle must be forever bred squarely "in line." He has no patience or sympathy with those who insisted that the Cruickshank strains must be bred "pure." He had not hesitated to use upon his best Sittyton cattle bulls that carried a dash of Bates, and he believed that it had been of substantial benefit to them. He regarded pedigree merely as a means to an end, and that end in this case was good cattle. He had endeavored to preserve as the first essential good constitution, and submitted the cattle at his recent successful sale in evidence as having been refined at both ends without expense to their middles. a board the swa be carring shaded having tion for a super readily

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THE FARMER'S ADVOCATE.

APIARY.

Swarming.

will induce early swarming, as it is generally due to an abundant secretion of honey and the general

to an abundant secretion of noney and the general prosperity of the colony. The outward indi-cations immediately preceding swarming are a partial cessation of field work on the part of colonies that have been industriously gath-ering and the clustering or loitering of the workers about the entrance at times when they

have usually been engaged in collecting and

when other colonies, no more populous, are at work. Suddenly great excitement seizes the work-

ers that happen to be in the hive at the time, when

they rush out pellmell, accompanied by the old queen, and after circling about for some minutes cluster on some neighboring tree or shrub. When a swarm has fairly settled it is best to

hive it as soon as possible, lest others coming out

may join it, occasioning a loss of queens and some-times of bees. The operation of hiving may appear very formidable to the novice and attended

easily it can be done. The same sort of quiet, deliberate motion as should char-

acterize all handling of bees is as effective here as at any other time. To be doubly sure the novice should sprinkle sweetened water over the cluster, and at the same time wear a veil to protect the face, is advised

by Frank Benton, in his manual issued by the American Department of Agricul-

ture. If the cluster should be on a small

limb, which can be readily cut off, it can

be laid down in front of the new hive, which

should have a full width entrance, to be

matters. If the bees have clustered on a

branch which it is desirable to preserve, yet where the hive can conveniently be placed directly under the cluster and close

to it, the swarm may be shaken into the hive at once, as shown in the illustration,

o doubt the advanced condition of this season

BLOODY MILK.

HERMAN WRIGHT, Simcoe Co., Ont .:- "I would like to know through your valued paper if it is possible to dry up cows in the flush of milking, say six weeks after calving, without injury or interfering with fattening them. They are not desirable cows to milk ; one of them is liable to give bloody milk any time. Would also like to know the cause of cows giving bloody milk?"

Persistent milkers are usually difficult to dry, but it can be done without injury to their welfare as "beefers." The course to pursue is to give a heavy dose of purgative medicine : Epsom salts, from 1 to 11 pounds; treacle, from 1 to 1 pint ground ginger, $\frac{1}{2}$ an ounce; dissolve in 1 quart of hot water and give in one dose. She should be fed sparingly on dry food without grain, with a scanty supply of water. After the purge has acted, give daily until the milk ceases to secrete : Powdered alum, 2 drams; vinegar, $\frac{1}{2}$ an ounce; water, $\frac{1}{2}$ a pint. Gradually discontinue milking, and never strip dry. The giving of bloody milk is due to some derangement of the udder, usually caused by injury, such as a bruise or the like which causes

such apprehensions. The bees before swarming usually fill their sacs with honey, and are quiet and peaceful, so that by the use of a little smoke in hiving there is seldom any difficulty. A glance at the operation as being performed by the lady in the illustration shows how easily it can be done. The same port of

without any treatment. 2. (a) The points of a good dairy cow are : Head smallish and lean, and good dairy cow are: Head smallish and lean, and broad between full, placid eyes; neck rather long, thin, and clean at throat; shoulders fine and slop-ing; loins broad; barrel long, well sprung and deep at flank; hips well apart and rump high. The skin should be flexible, velvety, and coated with fine, soft hair. When the hair is of light color the skin about the flanks, inside of ears, and end of tail should be way and vallow. The udder of tail should be waxy and yellow. The udder, being the most important part, should extend well forward, well up behind, and have teats well apart. When milked out it should neither be like an empty rag nor very fleshy, but a nice medium. The milk veins should be prominent, tortuous, and enter the body by large orifices well forward. (b) Yes. (c) If bred to a pure-bred bull she would likely produce calves much like their sire. 3. Mr. A. G. Gilbert, Poultry Manager at the Do-minion Experimental Farm, Ottawa, found that during the months of January to June, inclusive, pens of 11 of different breeds ranged as follows: Barred P. Rocks, 607 eggs; Langshans, 563; W. Leghorns, 518; S. L. Wyandottes, 479; Andalusians, 462; White P. Rocks, 430. The same authority claims that Black Minasser Langebrane and Light Back that Black Minorcas, Langshans, and Light Brahmas are layers of the largest eggs. Capt. A. Young, Tupperville, Ont., found last summer in a test that Silver Spangled Hamburgs layed the largest

Silver Spangied Hamburgs layed the largest percentage of eggs among his eight breeds, which stood in the following order of merit: S. S. Hamburgs, White Leghorns, Light Brahmas, S. G. Dorkings, B. Spanish, Part-ridge Cochins, B. Leghorns, and S. Wyan-dottes. We might say that Plymouth Rocks and Wyandottes are usually classed among dottes. We might say that Plymouth Rocks and Wyandottes are usually classed among what are styled the "general purpose" breeds; the Leghorns, for example, being considered specially as egg producers. As in the case of milch cows, so with laying hens : we presume there is as much or more difference between individuals as between breeds. One test does not settle which is the best breed of hens; much also depends upon the care and feeding.]

Miscellaneous.

ROUND-HEADED APPLE-TREE BORER.

W. G. BARKER, Ont. Co., Ont .:- "Would you kindly give me some information as to what is wrong with some of my young apple trees. The tops are green and the stocks black, spotted and sickly around the bottoms. The bark appears dead and has bottoms. The bark appears dead and has numerous dots. I found a grub crouched in the center of a tree that was dead and dotted. Is this the apple-tree borer? The trees were planted in fencecorners, and last spring I dug them up and planted them in orchard style. Quite a number are affected as described above.

There is very little doubt that the trouble is due to the work of the round-headed borer (Saperda Candida), a widely and generally distributed pest. In its perfect state it is a very handsome beetle about three-fourths of an inch long, cylindrical in form, of a pale brown color above, with two broad creamywhite stripes running the whole length of its body; the face and under surface is white, the antennæ and legs gray. The females are ger than have she antennæ. The beetle makes its appearance during the months of June and July, usually remaining in concealment during the day and becoming active at dusk.



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board before the entrance. As soon the swarm is fairly within the hive it should be carried to its permanent stand and well shaded and ventilated. The new swarm having the old queen will be in fine condi-tion for work. It should, therefore, be given a super in a few days, which they will readily fill.

then dipped, by means of a dipper, upon

To prevent swarming the racks should be examined occasionally, and the green cells pinched, so that they will be destroyed, also give more room above by the addition of supers.

QUESTIONS AND ANSWERS.

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

Veterinary.

ACTINOM YCOSIS.

W. F. E .: - " Please tell me what should be done with a cow having actinomycosis or wolf jaw? Is it lawful to use the milk? The lump is pretty well developed. We have been using a salve composed chiefly of iodine, I think."

[A description and treatment of actinomycosis has been given in the ADVOCATE several times during the last few months; the last time in May 1st issue, page 191. A good purge should be given at first, from one to two pounds of Epsom salts with a little ginger added, and then administer daily two-dram doses of iodide of potassium in a mash, gradually increas-ing the quarties for two or there weeks. If the ing the quantity for two or three weeks. If the animal goes off its appetite cease giving the iodide for a few days and then commence again. In about six weeks an improvement will be noticed. According to the law governing the sale of milk in cities, towns, etc., milk from cows with any disease, including actinomycosis, is forbidden to be used.]



HIVING A SWARM.

LAMPAS-DAIRY POINTS-HENS. "FRESHIE," Prescott, Ont.: -- "1. A four-year-old "rRESHIE, "rescott, Unt.: - "I. A four-year-old mare I have just bought has the lampas, which bothers her considerably in feeding. She has been eating dry hay, but I feed moistened cut hay and provender. (a) Is the lampas a disease or only the symptom of some disease? (b) What is its symptom of some disease: (b) what is its cause? (c) Are surgical operations, such as cutting or burning, necessary or advisable? (d) If not, is the inflammation likely to last long? 2. In judging a milch cow, of whose reputation you know nothing, (a) What marks would you look for? (b) Are such marks independent of here. (b) Are such marks independent of her for ? breed marks? (c) If so, and found in a cow which was only low bred, would you expect her offspring to inherit her good qualities? 3. Please tell me also what breed of hens you consider the best layers, taking size and number of eggs into account?

[1. Lampas is congestion, fever, and swelling of the gums and bars of the mouth. It is peculiar to young horses, due to teething, and may be considered a provision of nature to protect the incom-ing teeth. It rarely occurs in aged horses, when it is due to digestive derangement. A remedy is often found in feeding unshelled corn, but to scarify with a lance or sharp knife half an inch ing teeth. back from the teeth, followed by soft or green food, and an astringent wash such as alum water or and an astringent wash such as alum water or weakened vinegar is a surer means of curing. Burning is not only useless but barberous. The inflammation will likely subside in a few weeks

and becoming active at dusk. The eggs are deposited late in June, dur-ing July and most of August, one in a place, in an incision made by the female in the bark of the tree near its base. Within two weeks the young larvæ are hatched, and at once commence with their sharp mandibles to gnaw their way to the interior.

It is generally conceded that the larva is three It is generally conceded that the larva is three years in coming to maturity. The young ones lie for the first year in the sapwood just beneath the bark, excavating flat, shallow cavities, about the size of a silver dollar, which are filled with their sawdust-like castings. Their presence may, how-ever, he detected in young trees from the bark becoming dark colored and sometimes dry and dead enough to crack. Through these cracks some of the castings generally protrude and fall to the ground in a little heap; this usually occurs in the spring of the year. On the approach of winter the larva descends to the lower part of the burrow, where it remains dormant until spring, and then where it remains dormant until spring, and then goes on eating away at the sapwood, doing great damage. Here it works until the following year, when it emerges a mature beetle, after drilling burrows sometimes through the tree. The larva is of a whitish color, with a round head of a chestnut-brown and the jaws black. It is without feet. When full-grown it is over an inch long.

Remedies.—The most effective remedies are of a preventive nature. Alkaline washes or solutions are probably the most efficient, as it has been proved that the insect will not lay her eggs on trees protected in such washes. Soft soap reduced to the consistence of a thick paint by the addition of a strong solution of washing soda in water is perhaps 234

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where the main branches have their origin, will cover the whole surface liable to attack, and if applied during the morning of a warm day will dry in a few hours, forming a tenacious coat not easily dissolved by rain. The soap should be applied early in June and a second time during the early part of July.]

WIREWORM-COUGHING PIGS.

SUBSCRIBER, Middlesex Co., Ont.:-"1. Can you inform me of anything that will destroy the wireworm? I have a ten-acre field of oats destroyed with them. It was a hay field and I plowed it after taking hay off in '94 and sowed it with wheat; plowed in the fall of '95; sowed oats this spring. I also sowed about five acres of fall barley in another field . Last fall they took about one third with field. Last fall they took about one-third of the barley, and this spring I sowed spring barley on the bare spots, but the worm destroyed all the spring-sown grain.

"2. My small pigs have had a bad cough since last spring; they have it yet, but are growing better. It does not seem to hurt them much. I have two little fellows about three weeks old that were with their dam about two weeks, and they have the cough. They never got cold or wet that I remember of.

"3. Have you heard of any hogs dying from the disease?

[1. Owing to destructive ravages by the wireworm in various parts of the United States, Prof. J. H. Comstock, the Entomologist of Cornell University, conducted some especially interesting experiments with reference to the destruction of the larve, the pupze, and the mature beetles, and has arrived at conclusions that are noteworthy as being of essential value to the farmers wherever the wireworm has taken up it habitation. His experimentation extended over a period of three years, employing three methods of action : First, protection of the seed; second, destruction of the larve; and third. the destruction of the pupze and matured bettles Under the first head many processes were employed, but none of them accomplished anything of im-portance. With regard to the destruction of the insects, fair success was met with by fall plowing the ground. It has been ascertained that after the worm commences the process of pupation he loses his power of action as a worm, and the slighest disturbance or interference will operate to destroy him. This is likewise true of the pupa and of the young beetle. Assuming that the worm com-mences to pupate on July 1st, it is reasonably sure that any reasonable disturbance of the earth in which the cell is located up to perhaps the 1st of October will destroy a large proportion of the pupz and young beetles. It is recommended that the ground be not only plowed but that it be frequently stirred and also rolled, as the worms do not thrive so well in soil that is compact.

2. Hogs will sometimes be troubled with cough and to all appearance be in good health. Such a cough is likely caused by an irritation of the throat, not sufficient to cause the animal to be sick; or it may be the result of indigestion or worms. See that the pigs have clean, warm, dry beds, free from dust; and while well ventilated, free from draughts. Give each hog one or two teaspoon fuls of sulphur mixed with two tablespoonfuls of syrup in a little food twice a day for a few days. Sometimes a physic of Epsom salts, one or two ounces dissolved in half a pint of water, will remove a cough if the animal seems to be in good

LIVE STOCK MARKETS.

Toronto Markets.

Toronto l'larkets. Export Cattle.—We see no marked improvement in the export cattle business. The first shipment from St. John's, Newfoundland, arrived in Deptford (346 head) May 9th, and met a poor sale; 5 pence per pound estimated carcass weight. The demand in the Old Country markets is kept down by the large offerings of United States cattle. A few picked head brought ic. per pound; most of the sales were made at from \$3 to \$3.90 per cwt. for mixed loads. Dealers seemed quite indifferent and only bought picked lots to fill space already secured. Butchers' Cattle.—Good butchers' cattle in demand; prices shaded from last quotation; the best price for extra choice fat cattle, 3jc.; half fat, \$2.90. A few fancy cattle fetched 3jc. per pound, while some others sold as low as 2c. to 2jc. per pound, is many remained unsold at the close of the day. One load of 8 cattle, 268 pounds, sold for 3c. per pound. One load of 16 cattle, 21,160 pounds, 3c. per pound. One load, 1,060 pounds, \$3.50. One or two went at 2jc. to 3c. for shipping purposes. Sheep.—Sheep are dull at 3c. to 3jc, per pound. *Lambs.*—Choice grain-fed lambs, \$3 to \$4 each. Yearlings with the wool on rule from 4jc. to 5c. per pound; extra choice, \$5 each. Milk Corcs.—Quite a number of good-looking dairy cows

with the wool on rule from 41c. to 3c. per point ; extra choice, \$5 each. Milk Cows.—Quite a number of good-looking dairy cows were on offer and all sold before the close; \$25 to \$40 for choice. Calves.—Steady; offerings heavy, but most of them cleared before the close of the day, except the very poor qual-ity. Prices from \$3 to \$5 per head. Stockers and Feeders.—Not many on offer; all the good half fat feeders sold; no request for light stockers. Prices of good feeders rule at from \$2.75 to \$3.50 per cwt. Light stockers

good feeders rule at from \$2.75 to \$3.50 per cwt. Light stockers fetch only 24c. to 24c. per pound. *Hogs.*—Choice selections of bacon hogs were firmer to-day, selling at 44c per pound. Heavy thick fat are dull; not wanted; too many on the market; \$3.50. Mr. Sintclair, of Essex Connty, brought in to this market nearly 1,000 this week; Stores are steady at 33c. per pound. Stags and rough hogs, 2c. to 24c. per pound. *Dressed Hogs.*—Very few dressed hogs in this week; prices quoted, \$4.75 to \$5; heavy hogs, \$4. *Meat.*—Easier; one load of white at 78c.; one load of goose wheat selling at 54c. One load of red ; wheat, 74c. per bushel.

hushel

goose wheat selling at 34c. One load of red , wheat, rec. parbushel.
Oats.—In full supply; easier; selling at 25c. per bushel;
Oats.—In full supply; easier; selling at 25c. per bushel;
Quite a few loads have been taken for export; 800 bushels changed hands.
Peas.—Steady; selling at 52c.; 100 bushels sold.
Barley.—Dark, heavy barley would sell at 26c. to 28c.
Choice malting grades are quoted at 39c. to 41c.
Hay was in good demand, and, with a better quality offering, brought higher prices. About twelve loads sold at \$11 to \$15; one load, \$16; prime quality.
Baled Hay.—Stocks are large and movement is slow.
Cars No 1 on track are quoted at \$12 to \$12.50.
Straw.—Dubveries large; \$10 to \$11.50.
Butter.—Tub butter is more plentiful, and there is an easier feeling in the market. Roll butter generally arrives in poor condition and is difficult to dispose of. Dairy pound 1018, 16c.

condition and is difficult to dispose of. Dairy pound folls, life. to 18c. Supply more plentiful. Eggs.-The deliveries liberal; prices unchanged; 9c. to 11c. per doz. Hides and Skins.-There has been an advance in the price of hides in the United States, and the trust there has recently made some large purchases. A buyer on this market during the week cleared up quite a number of warehouses. The demand all round is better. The feature during the week is the advance of one cent per pound in beef hides, due princi-pally to the improved demand from the tanners. Dealers pay 5c. for No. 1, 4c. for No. 2, 3c. for No. 3. Cured hides firmer at 5je. to 6c.

 W_{001} .—The movement in new wools has been moderate New fleece brings 18c.; rejections, 15c.; and unwashed, 11c.

Montreal Markets.

Cattle.—The better prices noted in last report, consequent upon demand for export stock, have not been maintained, caused principally by the continued depression in the British markets and also by the heavier receipts of stock of which very little can be called export, but which are good butcher cattle. Only the very best of export cattle realize up to 4c, per lb., the larger range of sales being around 3jc. Of course this is largely governed by what is wanted to ill space, which is seldom beyond a load or two, the quality and price of cattle to be had often inducing exporters to take hold; therefore the absence of any needed demand keeps figures down. Butchers' stock has been sold very low on the past two weeks' markets, price even little beifers or steers running from 1000 absence of any needed demand keeps figures down. Butchers' stock has been sold very low on the past two weeks' markets, choice, even, little heifers or steers, running from 1,000 to 1,100 lbs, average, being had for 3|c, per lb. One large buyer, who handles over 100 head weekly, said these were the cheapest cattle he had ever bought, and there were lot- of them. One lot of 11, weighing 10.015 lbs., made 3c; 4 head, 3.625, 15 head, average 1,050 lbs., at \$3.35; 12, average 1,000, at \$3.55; 23 head, average 1,000, at 3|c; and so the sales went. Sheep and Lambs.—Old sheep were a little heavier run and made from \$2.50 to \$5 each. Lambs are coming in more freely, but the good demand for them keeps prices up, a mat-ter also aided by the better quality of those brought in. Sales at \$1.50 to \$4 each, according to quality, were freely made. Calres.—Continued heavy runs of calves keep prices down and a large number were carried over from last market (Thurs-day) to swell future offerings. No high figure has be paid that we have heard, the tops being readily had for from \$7 to \$8.50each, medium grades \$4 to \$6, and small and inferior lots down as low as \$1.50 One butcher's purchases of 52 head, weighing 55 lbs, dreesed, cost \$2.10 each. we have heard, the tops being readily had for from §7 to \$8.50 each, medium grades \$4 to \$6, and small and inferior lots down as low as \$1.50 One butcher's purchases of 52 head, weighing 55 lbs, dressed, cost \$2.10 each. Live Hogs.—The run has been light during the past two weeks; that is, the usual run brought in by local shippers, contracts west not being included. The best that has been paid for light, handy-weight bacons has not, however, got beyond \$4.25 per cwt. off cars—the usual price—and \$3.90 to \$4.10 in the yards; fed and watered, contracts, \$4 40, *Hides and Skins.*—An active demand springing up from tanners has sent beef hides up one cent per pound to five cents, and all accumulations have been speedily cleared out. Quotations for heavy (60 lbs and up) and light (59 lbs. and down) are 5c., 4c., 3c. per lb. for Nos. 1. 2, 3 hides. Owing to keen competition in lamb skins, clips have been advanced to 25c. each. Calf skins steady. British Markets.—Cables received to-day (Monday, 25th) were of an improved nature, but sales received did not bear out any improvement; one shipper's sales losing him \$10 per head. Best stakes were quoted at 10c. per lb., and choice Canadians from 94c. to 10c. per lb. Ocean freight rates are unchanged at from 35 to 40 shillings, Glasgow and Bristol being the strong points. The French Trade.—The predominant feature of the past two weeks has been the opening up of new markets that to France, although not quite a new venture, have been put on a more business like foundation,—regular sailing of steamers being arranged, and a Canadian salesman being appointed to handle consignments; the other market receiving its first consignment being Manchester. The prospects for these, two latter ports, however, do not seem to be overly bright, and it would not be surprising if the first shipment to the latter port would be the last. Advices received to-day from France seem to point to the infectious nature of the depression in foreign cattle markets—this latter place showing a decline in valu JUNE 1, 1896

Chatty Stock Letter from Chicago.

(BY OUR SPECIAL CORRESPONDENT.) Top prices for different grades of live stock, with com

arisons: -	Descent Wree weeks	
	Present Two weeks	

	Present Two weeks					
CATTLE.	Prices.	ago.	1895.	1894		
1500 lbs. up	.\$ 4 25	\$ 4 55	\$ 6 05	\$ 4 40		
1350 @ 1500	4 40	4 50	6 05	4 40		
1200 @ 1350		4 50	5 85	4 35		
1050 @ 1200	. 4 25	4 35	5 65	4 20		
900 @ 1050		4 25	5 45	4 15		
Stillers		4 35	5 50	4 10		
Stks. and F		4 00	4 65	4 12		
Fat cows	0.05	4 10	5 15	4 00		
	0.00	2 30	3 20	2 70		
Canners	0 40	3 25	4 50	3 50		
Bulls	F 00	4 75	5 65	5 10		
Calves	0.00	4 10	5 10	3 90		
Texas steers		3 40	4 25			
Texas C. & B	3 35	3 40	2 40	3 25		
Hogs.						
Mixed	3 50	3 65	4 75	4 95		
Heavy	3 47	3 60	4 85	5 00		
Light		3 75	4 70	5 00		
Pigs		3 80	- 4.50	4 80		
SHEEP.	4 00	3 90	5 35	4 85		
Natives	0.07	3 80	5 35			
Western				4 60		
Texas		3 75	4 55	3 90		
Lambs		5 10	6 30	4 75		
	1	thoma i	a ma flat	toning		

Prices are extremely low, and there is no flattering pros-pect of betterment for a while, as receipts are large and the demand still narrow. The army worm has appeared in many Western localities, and as a result a good many young cattle are being forced to market

The army worm has appeared in many "restand here years a result a good many young cattle are being forced to market. At present there is very little profit in feeding any kind of stock; but there is certainly no profit in selling grain. Prices for light store cattle are not much below figures paid for choice heavy beeves, but should the army worm pest develop, as is feared, the relative position will be changed. Here is an opinion of an expert hog salesman which is of interest even if one does not agree with it. He says: "This is the only country at the present time that can successfully raise hogs and corn on a large scale, and the present and prospective era of low prices will doubtless have a tendency to cause other countries to liquidate and go out of the hog business, which in time will be reflected in the shape of a better and broader market here." Another man says the reason light hogs are so scarce now is because farmers had the corn, and fall shoats that would ordinarily be coming along as light weights are now coming as 240-lb. to 220-lb. hogs. While the spring crop of pigs was good the spring pigs can't hurt the market before fall. A hog buyer who says he can't see any turn in the provision trade yet, thinks the hog crop will continue to move freely, and is of the opinion that it is universally large. Now that country prices are below the 3c, point and owners have lost faith in better prices, he thinks we may count on natural runs from now on, and heavy ones, too. Present hog prices are the lowest in over sixteen years, or since 1879. In December, 1878, \$3 was the extreme top price for fancy heavy, with "droves" of packing during the month around \$2.50. One of Chicago's leading commission men says: "We

round \$2.50

for rancy neavy, with throves of packing utring the induct around \$2.50. One of Chicago's leading commission men says: "We have not been able to detect anything in the situation that would warrant a belief in anything but a weak and declining market, and while we look for a fairly active demand right along, we do not believe that hogs have struck bottom yet. Even the present comparatively low prices for hogs are high when compared with the price of other stock, grain or feed; and hogs are about the only commodity that is selling above demand are light and will doubtless continue so until people generally understand that times are on the mend." To show how buyers are discriminating against the big-weight cattle, the following among the purchases of one day

weight cattle, the following among the purchases of one day recently are shown:— D. Moog bought 1,281-lb. steers at \$3.90. B. Wolf bought 687-lb. heifers at \$4.05. Swift bought 1,161-lb. to 1,167-lb. steers, \$3.90 to \$4.10; 1,013-lb. to 1,140-lb. steers, \$3.65 to \$3.85; 1,267-lb. to 1,307-lb. \$3.85 to \$3.90. Armour bought 1,428-lb. to 1,641-lb. steers at \$3.80 to \$3.90. Eastman bought 1,438-lb. to 1,661-lb. steers at \$3.75 to \$3.90. Morris bought 1,558-lb. steers, \$3.75, 1,491-lb. to 1,797-lb. steers, \$3.70. Schwartzchild & S. bought 1,277-lb. steers at \$3.95. Hathaway bought 1,455-lb. to 1,639-lb. steers at \$3.75 to \$3.80. Canada and the United States ought to do more towards supplying the Old World with muttom. Of the 6,000,000 muttom and sheep carcasses annually exported to Great Britain for home consumption, the United States furnishes only about 8

per cent.

JUNE

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health. If the cough is very troublesome give a teaspoonful of compound syrup of squills twice a day for a few days. Also rubbing a little mustard on the throat once a day for a few days will often be useful.

3. No.1

CUTWORMS (Agrotis).

HENRY BRIGHAM, Grey Co., Ont .: - "A new pest, about an inch long and dark in color, has made its appearance in this neighborhood. It is eating out fall wheat, oats, and peas below the ground. Please describe and prescribe. What crops should be sown on land that has to be plowed because of them?" [There is no doubt but the pest is one of the cut-

worms, of which there are several varieties. While they are most prevalent and destructive on crops sown upon inverted sod, they occasionally destroy a field of grain upon other land. When a crop is noticed to be under way of destruction, nothing can cut threatens to be short, millet or corn should give a good return. The former is the better, as it is less likely to be destroyed by the worms. The best method known for destroying cutworms is autumn plowing and thorough cultivation, as at that season the grubs have entered the pupal stage, when they can least withstand interruption.]

The Storrs Experiment Station (Conn.) draws the following, among other conclusions, from a careful study of rations fed to milch cows: "The nitrogenous (protein) feeding stuffs, like clovers, cotton seed, linseed and gluten meals, should be more extensively used as dairy feeds. These feeds have been shown to exert a greater influence on the quantity and quality of animal products than corn and even wheat feeds, and when the manure is carefully saved they are of great value for keeping up the fertility of the farm." The last of the Colorado lambs are on the road, and a week or two more will see the end of them for this year. About 175 000 lambs have been sent to market from Fort Collins and vicinity this year, nearly all of which came to Chicago. The quality was exceptionally good, and prices were relatively high compared with good native lambs, yet about \$1 per hun-dred lower then a weer sec dred lower than a year ago.

New York Horse Sales.

At the American Horse Exchange sale, New York, recently the first consignment was made by J. W. Wilson, of Chicago, who offered his first lot. The best price realized was \$1,600 for a matched pair of Morgans. Other pairs sold down around \$500, \$175, and some single roadsters brought \$375, \$200 and \$150 each. The latter sale was a consignment of M. H. Tichernor & Co., Chicago, who have sold five such lots since February. The present average was nearly \$350. Pairs sold for \$900, \$925, \$850, and less. Some of the best single cobe brought \$480, \$450, and \$130 each.

Toronto Horse Market.

The usual weekly sales at Grand's Repository have been well attended, large numbers of horses changing hands. Good horses are more difficult to find. Mr. Lord, of Brookline, a suburb of Boston, Mass., was over and purchased nine useful carriage horses for that city and will return in two weeks. Mr. C. O'Brian, Brookline, Mass., was also purchasing a num-ber of fine carriage horses. Horses recently exported met a fair demand and made some money.

Death of President Betts.

We regret to announce the death, on May 21st, of Mr. Silas Betts, of Camden, N. J., the honored President of the American Guernsey Cattle Club. He was a native of Borodino, N. Y., where he was born, May 9th, 1828. He has been devoted to Guernsey breeding for nearly a quarter of a century, and was one of the organizers and chief promoters of the Club. He was an able contributor to the agricultural press.

The law against sheep scab is being rigidly enforced in Scotland, farmers being heavily fined recently for not reporting cases, for moving affected sheep on the roads, and for pasturing sheep suffer-ing from scab in fields adjoining the highway, the penalty in the latter case being £5. farn N acre ł crop the and

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FARMER'S ADVOCATE. THE

A RED CEDAR PENCIL.

A RED CEDAR PENCIL. Droe upon a time, in a large and smoky city, there lived a por young artist. He had not always known what it was to perform the was a little boy he lived in a grand house, and had all the comforts that any child could want. But all that was changed now, and he was very poor. His father was dead, his mother was dead, and he had no one in the world to perform the max all things he meant to be honeset, and though the could have run up bills at different stores he did not do it, but pail for everything as he got it, and hoped for better days to come. But better days seemed so far away on that Thurs-for of an old tumble-down house. It was a cheerless day : the rain drizzled against the window panes and washed one little piece of soot after another down onto the sill, from whence it dripped to the roof, and ran off in a current of dirty water to the guiter below. The room itself was nearly as comfortless as the day outside. In one corner was a cot-bed, the legs of which ware tied up with string to keep them from falling apart. There was a washetand which had been good once upon a time, but looked as though it had been through two or three auction sales before it got up into the place it now or fried the artist sat with his hands in his pockets, be-fore the table on which rested his last quarter. He had taken it from his pooket, and after having fumbled in all the others to see what anybody's last quarter really looked like. He was he time when he would hardly know how to spend one because he had so many things already. A glance around the room and many things already. A glance around the room around him that there was no more and rine alread on the rink if when he would hardly know how to spend one because he had so many things already. A glance around the room around him that there was noting reft to sel whoic nod around him that there was noting reft to sel whoic housd if day, an 'I went store. Me will used to go out workin', but wore than when he would hardly

reward." The door closed, and the man and the quarter were both gone. "Too bad," exclaimed the artist, but he wasn't thinking of his money. All he could think about was the haggard face and wheezy voice of the man who had just left him. "And I told him I hoped he'd soon get well," said the artist to himself. "Poor chap, I'm afraid he knew as well as I did that he never will."

"Poor chap, I'm afraid he knew as well as I did that he never will." Daylight had gone and night had shut off from view all the poverty of the room, but the artist had not stirred from his chair. He had no money to buy a supper now, so he had not bothered about it, but had fallen asleep where he sat. All of a sudden the clang of the fire alarm drowned all the usual noises of the city, and in an instant there was a scurry-ing of feet on the pavement below. Gradually the room began to be lit up from the reflection on the sky, and when the artist started to his feet, bewildered and dazed, it was to see thick clouds of smoke rolling up and tumbling over each other, whilst showers of sparks and wicked tongues of flame lit up the city far and wide. Snatching up his hat and the pencil, which were both on the table, he hastened down to the street. Sparks were falling everywhere, but he rushed forward to the scene of action, guided by the thrumming of the fire engines and the shouts of the firemen. At last he was in the crowd, hustling and pushing to get a better view. When he had suc-ceeded in getting a good position, from which he could see the crumbling buildings and the men rushing out yards of hose, and directing their streems first here, then there, he found he was next to a man who was taking notes. At once a thought struck him. "Are you a reporter ?" asked he. "Yes," replied the man," struck him. "Are you a reporter?" asked he. "Yes," replied the man, giving the name of the largest paper in the city. "Do you think I could get some sketches taken if I were to do them now?" asked the artist. "I think you could," said the man; "both our own artists are away on a railroad wreck, which occurred this afternoon, and they can't possibly get back for two hours." occurred this afternoon, and they can't possibly get back for two hours." On paper procured from the reporter our friend began to work. At first he was doubtful as to the success he would have with an ordinary pencil bought from a poor peddler, but there was no time to go back even if there had been a chance, so he made the best of it and began. The pencil proved more than a success. Never in his life had he been able to get effects so quickly and so well. The sketches which he dashed off were perfect, and it seemed as though all he had to do was to put the pencil-point on the paper and it would draw what-ever he wanted. So in about half an hour he had pictures of firemen with hose and hatchet hard at work, pictures of fall-ing buildings, and of people being caught in the net, pictures of dashing hose reels, and of policemen keeping back the crowd. He hastened back to his room and worked them up, then back to the office of the paper and delivered them. Fifteen hours later he was sitting in his room, as he had been when the poor man left him the afternoon before; but now he had a toothpick in his mouth, and there was an un-broken ten-dollar bill in his pocket. On the table was a morn-ing paper containing some remarkably good sketches of a fire, and on the paper lay a common red cedar pencil with a rubber tip. The artist leaned forward and picked it up to examine it, saying as he did so something about "kindness bringing its own reward."—Dermot McEvoy.

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THE CHILDREN'S CORNER.

IHE CHILDKEIN S CONNER. A "Proverb-Hunt" will now begin this column. A prize is offered for correct solutions of the first three pictures. Only children of subscribers may compete, and competitors must be under sixteen years of age. Answers should be sent in for each group, e. g., 13, 46, 79, etc. A prize is offered for each group of three pictures, and a better one at the end of the year for the largest number of correct answers. Letters marked "Proverb-Hunt" will not be opened until ten days after the third picture of each group is issued. The first letter opened, containing correct answers, will be prize winner; all others will veoive honorable mention. Address your letters to Cousin Dorothy, FARMER'S ADVOCATE, London, Ont., and mark them "Proverb-Hunt"-Hunt"-outside the envelope.



MY DEAR CHILDREN,— I want to thank you for the nice letters which are con-stantly coming in from all parts of the country. John Shee-han's proverbe were correct as usual; and although they arrived too late for the prize, deserve honorable mention. Two of Bert Hodgins' proverbs are correct. J. S. writes: "I thank you very much for the nice prize I received from you. I have not had time to read very much of it, but I think it is a very good story."

In have not had time to read very much of it, but I think it is a very good story." I will start two new competitions at once. For the girls I offer a prize for the best paper doll with three tissue paper dresses—removable, of course. The doll must be home-made; cut out of a paper and pasted to very thin cardboard, or painted directly on the cardboard. For the boys, a prize is offered for the best home-manu-factured text, to be painted in water colors on paper—card-board not accepted—twelve inches long and six inches wide. These must reach me not later than October 15th—vacation work for you all—and will be sent, after being judged, to the Children's Hospital in Toronto. Any one who does not get a prize may feel quite certain that the work spent on doll or text is not thrown away, for it will make some little invalid happier. Do you remember who has said, "Inasmuch as ye have done it unto the least of these My servants ye have done it unto Me." Read "The Quiet Hour" in this issue and you will find out the surest way of having a happy summer. Your loving friend, COUSIN DOROTHY.

" Do Something for Somebody Quick."

Are you almost disgusted with life, little man ? I will tell you a wonderful trick That will bring you contentment if anything can— Do something for somebody quick !

Though it rains like the rain of a flood, little man, And the clouds are forbidding and thick, You can make the sun shine in your soul, little man— Do something for somebody quick !

Though the skies are like brass overhead, little man, And the wall like a well-heated brick ; And all earthly affairs in a terrible whirl— Do something for somebody quick !

Little Buttercup -- A True Story.

I am a cat. My name is Little Buttercup. I am ellow and white. I'm not very pretty-my little

THE QUIET HOUR.

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-F. R. H.

Growing.

Unto him that hath, Thou givest Ever "more abundantly."

Lord, I live because Thou livest,-Lord, I five because I not lives, Therefore give more life to me; Therefore speed me in the race; Therefore let me grow in grace.

Deepen all Thy work, O Master, Strengthen every downward root, Only do Thou ripen faster, More and more, Thy pleasant fruit. Purge me, prune me, self-abase, Only let me grow in grace.

Let me grow by sun and shower. Let me grow by sun and shown Every moment water me; Make me really, hour by hour, More and more conformed to Thee, That Thy loving eye may trace, Day by day, my growth in grace.

How Fruits Grow.

Where does joy come from? I knew a Sunday scholar whose conception of joy was that it was a thing made in lumps and kept somewhere in thing made in tumps and kept somewhere in heaven, and that when people prayed for it, pieces were somehow let down and fitted into their souls. I am not sure that views as gross their souls. I am not sure that views as gross and material are not often held by people who ought to be wiser. In reality, joy is as much a matter of cause and effect as pain. No one can get joy by merely asking for it. It is one of the ripest fruits of the Christian life and like all fruits must fruits of the Christian life, and, like all fruits, must be grown. There is a very clever trick in India called the mango trick. A seed is put in the ground and covered up, and after divers incantations a full-blown mango bush appears within five minutes. I never met any one who knew how the thing was done; but I never met any one who believed it to be anything else than a conjuring trick. The world is pretty unanimous now in its belief in the orderliness of Nature. Men may not know how fruits grow, but they do know that they cannot grow in five minutes. Some lives have not even a stalk on which fruits could hang, even if they did grow in

which fruits could hang, even if they did grow in five minutes. Some have never planted one sound seed of joy in all their lives; and others who may have planted a germ or two have lived so little in sunshine that they never could come to maturity. Whence, then, is joy? Christ put His teaching upon this subject into one of the most exquisite of His parables. It is the parable of the Vine. Did you ever think why Christ spoke that parable? Afterwards He turned to the disciples and said He would tell them why He had spoken it. It was to Atterwards He turned to the disciples and said He would tell them why He had spoken it. It was to tell them how to get joy. "These things have I spoken unto you," He said, "that my joy might remain in you and that your joy might be full." It was a purposed and deliberate communication of His secret of harminess. Go hast over these of His secret of happiness. Go back over these verses and you will find the causes of this effect -the spring, and the only spring, out of which true happiness comes. Remember, in the first place, that the Vine was the Easter symbol of joy. Christ is "the true Vine." Here, then, is the ulti-Christ is "the true Vine." Here, then, is the ulti-mate source of joy. Through whatever media it reaches us, all true joy and gladness find their source in Christ. His people share His life, and therefore share its consequences, and one of these is joy. His method of living is one that in the nature of things produces joy. The medium through which it comes is also explained: "He that a bideth in Me, the same bringeth forth much through which it comes is also explained: "He that abideth in Me, the same bringeth forth much fruit." Fruit first, joy next — the one the cause of the other. Fruit-bearing is the necessary ante-cedent — joy the necessary consequent. It lay partly in the bearing fruit, partly in the fellow-ship which made that possible. Partly, that is to say, joy lay in mere constant living in Christ's say, joy lay in mere constant living in Christ's presence ; partly in the influence of that Life upon mind, character, and will; and partly in the in-spiration to live and work for others, with all that that brings of self-riddance and joy in others' gain. These are sources of pure happiness. Even the simplest of them — to do good to other people — is an instant and infallible specific. There is no mystery about happiness whatever. Put in the right ingredients and it must come out. He that abideth in Him will bring forth much fruit; and bringing forth much fruit is happiness. The infallible recipe for happiness, then, is to do good ; and the infallible recipe for doing good is to abide in Christ. The surest proof that all this is a plain matter of cause and effect is that men may try every other conceivable way of finding happiness, and they will fail. All fruits grow, but no man can make things grow. He can arrange circum-stances and fulfill conditions, but the growing is done by God — "The fruits of the Spirit are love, joy, peace," etc. What more need I add but this — test the method by experiment. Do not imagine that you have got these things because you know how to get them. As well try to feed upon a cookery book. Spend the time you have spent in sighing for fruits in fulfilling the conditions of their growth. The fruits will come — must come. We have hitherto paid immense attention to effects — to the mere experiences themselves; we have de-scribed them, advised them, prayed for them done everything except find out what caused them. About every other method of living the Christian life there is an uncertainty. But so far as this method is the way of Nature it cannot fail. Its guarantee is the laws of the universe, and these are "the Hands of the Living God." —From "Pac Vobiscum."

Why the Oat Crop is a Failure.

Farmer Hardacre-"Fate is always agin the farmer."

Mr. Cittiman-"What is the matter, Mr. Hardacre?'

Farmer Hardacre-"Why, I've got a bustin' big crop of oats for the first time in four years, and there's nuthin' to feed 'em to any more but bicycles and trolley cars.'

mistress says so-but I'm the cleverest cat in all the world.

I am a very dainty cat. I always have my meals in the dining-room with the family. For a table I have a square of oilcloth covered with a white napkin. My meat is cut into small pieces and put upon a china plate. My milk is put into a silver cup. If my food is given to me in any other way, I stick up my nose. That is what my little mistress does when she doesn't like her food, but it doesn't look pretty in her. I eat my meat with my own little fork. It is a pretty fork. The handle is covered with velvet and the prongs are covered with mother-of-pearl. My little mistress calls it my paw, but I am sure it was made for a fork, and so use it. I stick the sharp points into my meat, and

thus carry it to my mouth. I drink my milk in the same way. I mean, I dip my paw into the cup, and when it is covered with milk I draw it out again and lap the milk from it

My little mistress puts her nose into her cup every time she drinks—but she has not the advan-tage of being a cat. Our cook doesn't like me. I am sure I don't know why; I am very fond of her, and I want to make her like me, because she always has nice things to eat. I thought, perhaps, she would like me better if she could see some of my cunning tricks; so one morning, when she was ringing the breakfast bell, I jumped upon the table and dipped my paw into the cream-pitcher. I had just begun to lap it off nicely when the cook came in. Now, when my little mistress sees me do that she always says, "Oh, you darling little cat!" I expected cook would say it, too, but she didn't; she said, "Aw, you spalpeen of a cat!" and she slapped me five or six times, and put me down cellar. I didn't stay there long, though, for my little mis-tress brought me back. I had cream instead of milk for my breakfast, so I knew that she thought I was clever. I do wish I knew what to do to make cook like me. But some people are always so illnatured !

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THE FARMER'S ADVOCATE.

John Knox Preaching Before the Lords of MINNIE MAY'S DEPARTMENT.

the Congregation. BY SIR DAVID WILKIE,

Knox preaching before the lords of the congregation is one of those pictures which forms in one view most of the leading characters of an epoch in a nation's history. Knox is an incarnation of the spirit of the Reformation, the power that crushed Mary Stuart and delivered Scotland from Rome. His convictions were stern and immovable, and in carrying them out neither danger nor scruples deterred him from the most decisive action. In the contest with Mary, the beauty and charm that had more or less effect on all around her, on him was powerless. His deep, concentrated zeal for the cause he represented rendered him hardly fair and at no time tolerant in his judgments on her actions. In his sermons and prayers he indulged in a freedom of expression which the Queen bitterly resented. He had no sympathy with the moderate men of his own party. The penetrating shrewd-ness of his perceptions were unobscured by any taint of self-interest or touch of commiseration, and the course of history may with some force be held to have justified the position of unyielding opposition which he took to the Queen's party including Murray Maitland and other friends of the Reformation.

In his sermons Knox's language was plain and homely to a degree. He had learnt, he says, to call wickedness by its own name;—"a fig, a fig; a smade a smade". His spirit man doubted spade, a spade." His spirit was dauntless and agree. It is really surprising to observe the im-

danger stirred him like a trump et. A hostile audience called forth all his powers, and his energy and vehemence of delivery were tremendous. It is related of him that in his old age, when worn and debilitated to the last degree, he had to be assisted into the pulpit by his devoted servant, the good Richard Ballenden, and on his first entry had for some time to sustain himself by leaning on the sides, "but ere he was done with his sermon he was so active and vigorous that he was lyke to ding the pulpit in blads and flie out of it."

For this picture Wilkie made long and careful pre paration. It was his first attempt at what has been called the "grand school" of paint

A Plea for Our Skirts. I lately came across the following poem, which I fancy echoes a very general sentiment :-

Wail of the Anti-Bloomerite. We hear so many rumors About wearing of the Bloomers, That we feel inclined to ask— Why should women try to mask Her own sweet and lovely sex And with men's her clothes perplex?

Why the flowing lines pervert Of fair woman's graceful skirt? Why the groanings and the rants Because we can't endure those - pants?

Why should they wear balloons, Just like pumpkins or full moons? With a waistcoat and cravat And a mannish-looking hat? Oh! lovely fair ones, why Is all this thus, we cry ?

Just take an average girl, And two suits of clothes unfurl. Dress her first as woman fair— Don the other,—then compare !

If you only knew how sweet If you only knew now sweet Is dear woman—when we meet Her—in her modest dress arrayed, A truly woman maid,— Oh ! surely soon these rumors Of the ugly, clumsy Bloomers, Would no longer woman vex, And shed prefer to keep her sex.

Firstly, because the list is endless, and secondly, because I have arrived at the word "skirts." There lies the rub. Those dear ladies, the Bloomerites, are not satisfied with the dress menu which I have are not satisfied with the dress mente which I have enumerated, but they must abolish "skirts." This most suitable and graceful of all woman's dress must flee, and in its place shall reign the ponderous bloomers! One argument advanced is: "Impossible to ride a bicycle gracefully or safely with a side to rule a breyers grace any of safety with a skirt." This humble writer happens to know that one of the finest lady bicyclists, who has wheeled hundreds and hundreds of miles, in Europe and America, considers that a properly-made skirt offers no sort of impediment to good and safe riding. The anti-Bloomerite poem I have quoted speaks a wholesome truth, although jestingly. A woman cannot look womanly without a skirt! Let undergarments be divided if you like-indeed much comfort may be derived therefrom-but have a skirt outside. A short skirt (that is, to about the ankles) for walking, especially in bad weather, is highly to be commended; but the shortness I name is enough. Look like a woman! What is there to be ashamed of? If there is any radical change in dress, let our brothers have a chance. Strange it is that so few men (in fact, are there any?) want to look feminine and so many women want to look masculine! FRANCES J. MOORE. masculine

Recipes.

VEAL CROQUETTES.-Mince the veal, season it, With the author of these lines I most cordially and moisten with white sauce, then heap it in small shells or pattypans; sprinkle with bread crumbs, and bake

till brown. LAMB CRO-QUETTES. - Boil two large tablespoonfuls of rice in stock until it has absorbed the liquid and is quite tender; then spread it on a platter and brush over with a little meat glaze. Make six croquettes of lamb in the same way as the veal, brush over with meat glaze and pile them on the rice; season with

QUETTES. -Mince enough cold chicken to make a pint of meat; add two or three mushrooms and half a pint of white sauce; stirup with the meat until the sauce is melted; add the beaten yolks of two eggs and salt and pepper to taste. the mix hen ture has become nearly cold, form into deep, round croquettes, and brush over with the yolk of an egg beaten in a tea-spoonful of milk. After this, roll in dried, sifted bread crumbs, and fry.

green peas or beans. CHICKEN CRO-

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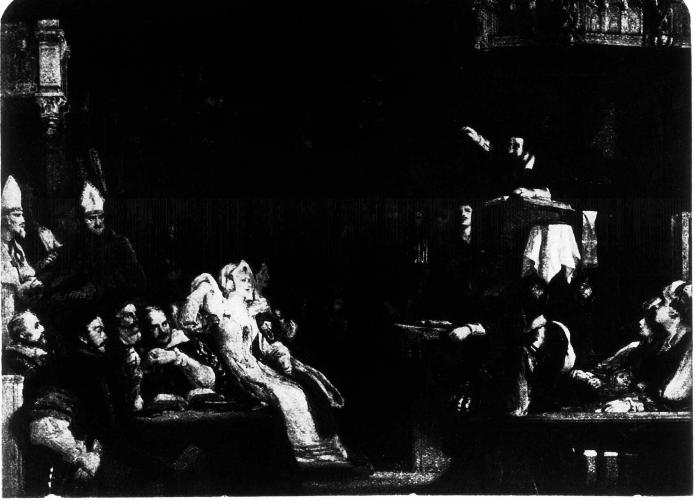
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MY DEAR

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ing-attempts which Mr. Ruskin holds to have ruined him. No No doubt the foun-dation of Wilkie's fame will always rest on his inimitable representa tions of Scottish life and character.

JOHN KNOX PREACHING BEFORE THE LORDS OF THE CONGREGATION

value and prove of as unfailing interest as those of Hogarth. But few will be willing to admit Ruskin's dicta as applied to this picture of Knox preaching. It rarely fails to arouse the interest and enquiry of all who see it, and Dr. Waagen, the great German critic whose cosmopolitan judgment is rarely at fault, holds this painting, "for size and richness of composition, one of Wilkie's greatest works."

The lady in the center of the picture has often been supposed te be Queen Mary of Scotland, but that is a mistake. It is a portrait of the Countess of Argyle, the illegitimate sister of the Queen. The first Catholic prelate behind the ladies is Archbishop Hamilton, with Kennedy, Abbot of Cross nishop Hamilton, with Kennedy, Abbot of Cross-rayme, whispering in his ear, and next to them, Beaton, Bishop of Glasgow. The group of four noblemen in front are the famous Murray (the good earl who was assassinated), the wily Morton, the Earl of Argyle, and Cunningham, Earl of Glen-cairn. In the gallery is represented George Buchanan, one of the most famous scholars of his day and a bitter opponent of Mary Stuart, his unhappy Queen. The age was one of strong convictions and desperate conflicts, in which the lives of the leading contestants often hung upon the fate of their cause.

Bethink thee of something thou oughtest to do and go and do it, if it be but the sweeping of a room or the preparation of a meal or a visit to a friend.-George MacDonald.

His works of this class will always have a unique mense amount of spare steam expended by women value and prove of as unfailing interest as those of on dress discussions. Not by *all* women, happily. There is still quite a large majority who prefer to retain the garments suitable to their sex. Now, if the poor men were to make some protest anent their habiliments, it would not be so much a matter of wonder. Think of a man's dress, and the small amount of change there is in it! No matter what complexion a man possesses — what hair—what eyes-what height-what breadth-he must wear the regulation clothes. *He* can't choose a color to suit him, poor fellow! Sometimes he may venture on a becoming color for his tie-his blazer-his -his summer sash; but take his every-day suit capand his dress suit—what monotony! I am sure he must often read, with envy, of the velvet doublets and "fetching" waistcoats and hose worn by our ancestors, and gaze, with a hopeless heart-sinking, upon the pictures of that far off youth.

I read lately—*apropos* of the bicycle craze—that "trousers must go." Let them go, by all means, the ugly things! Knickerbockers and stockings are twice as picturesque. I hope a good time is coming for the "sterner sex" - | Which is the "sterner sex," by the way, for things have got some-what mixed of late ?]. And now, Why, why all this fuss amongst the women? If there ever was an age when lovely woman could array herself in any way she pleased, truly this is that age. Color-shape-grace-everything! Tailor gowns-empire gowns-dark colors, light colors, one color, a dozen colors; big sleeves, no sleeves: little hats, big hats; long skirts, short skirts ---- Here I must pause

STEWED PINEAPPLE. - Take a ripe pineapple, cut into small pieces and cover with sugar. Let stand a few hours, then pour all the juice off; add more sugar, and boil it until it assumes the consistency of syrup, then pour it over the fruit-the latter must not be cooked—and serve cold.

TO PRESERVE STRAWBERRIES WHOLE.-Procure large, firm strawberries-not too ripe-and hull and weigh them. Take an equal weight of sugar, make a syrup, and when boiling hot, put in the berries, a few at a time. Boil about twenty minutes, then seal in small jars.

HOME-BREWED BEER.-Home-brewed beer is a delicious drink in summer. In filling the bottles great care must be exercised that they are not filled too full or they will burst when fermentation sets in. Fill up just to the neck. To make home-brewed beer, proceed as follows: Measure four teacupfuls of brown sugar, four tablespoonfuls of ground ginger, and a two-quart basin full of fresh hops. Place the hops and ginger together, cover well with water, using three or four quarts, and boil for an Then strain, pour the liquor into a kettle, hour. add half a cupful of molasses, and boil for half an hour. Put the hops, ginger and sugar in a crock holding four gallons, put in the hot liquor, fill the crock with water, and add a cupful of yeast. Set the liquor in a warm place for eight or ten hours to ferment: then skim and bottle, tying the corks securely. Beer bottles with rubber corks are best. In two days the beverage will be ready for use. areful in opening, as the beer will be "heady. Beer made in this way will keep all the year round.

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THE FARMER'S ADVOCATE.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,-"Queen of the months of the year, Hour of her crowning and prime, Everything royal and dear, Comes in this bountiful time."

So sings the poet of the lovely month we are now enjoying, and surely we are almost willing to agree with him, for if not "everything royal and dear," at least a great many of Nature's beautiful treasures are opened to us in leafy June. How charmingly cool, fresh and inviting the shady woodland looks in its new emerald gown! Bryant has very beautifully described the prairies in a poem, of which I was always fond. You all know it most likely. It commences thus :--

"These are the gardens of the desert,— These, the unshorn fields, boundless and beautiful, For which the pride of England has no name— The prairies."

The prairies may, and certainly do, have their peculiar attractions; but think for a moment, boys and girls, of what this country would be without a tree upon which to rest the eye, and tell me would you not soon be heart-hungry for your old friends. They have there, perhaps, a greater profusion and variety of wild flowers than we have in Ontario; but in this month of roses at least we have no cause to envy them; nor shall we who enjoy so many blessings covet those bestowed upon our own sister Province.

I read recently an excellent advice for discon-tented people, viz.: "The way to have everything you want is never to want what you cannot have and indeed there is quite an art in learning to do without ;-fortunately, one that may be cultivated. A spirit of contentment and cheerfulness is a noble patrimony, and I hope most of my dear nephews and nieces are blest with it. If, however, any of them are victims of the opposite spirit, they should try as speedily as possible to eradicate it, for discontent has far-reaching roots, and when once firmly established can not readily be removed, but holds the fort forever, permeating with its corroding acid every blessing, proving a veritable opposite to the philosopher's stone and transmuting gold to the hasest metal.

Instead of envying the few who are better situ-ated than yourselves, think of the numbers who are infinitely worse off, and instead of repining, be thankful. Just make up your minds to look only

on the bright side of everything, to find the silver lining that hides behind every cloud, and soon you will find the habit grow upon you, and the dark, complaining frown yield to the softer and fairer smile of satisfaction. It is a sad thing to hear the young talk of the "coldness" and "wickedness" of the world, when most often it is just "as we make it.'

t."
"Some say this world is a sad, sad world, But it's always been glad to me, For the brook never laughs like my soul when it quaffs And feasts on the things to be.
The night comes on with its rest; The morning comes on with its song; The hours of grief are few and brief, But joy is a whole life long.
This world is not old or cold; This world is not to do or sad;
If you look to the right, forgetting the night, And say to your soul 'Be Glad."

The success in illustrating rebuses achieved by our clever niece, Lily Day, causes me to think that perhaps some others might be able to do something in that line too, so as an inducement I will offer a special prize-a very nice book-for the best rebus UNCLE TOM. received before August 1st.

Puzzles.

All puzzles should be sent direct to Ada Armand, Paken ham, Ont., who has charge of this department. 1-EXTRACT FROM LAY OF THE LAST MINSTREL

One word in each line.

One word in each line. I will tell thee something I heard; Just say thou wilt never tell; Thou must not repeat the least word Of this tale I know so well. Be as still as the little mice, As if 'twas to be your death; As I said it's awfully nice, Thou had best to hold thy breath. Why, let me see! They're gone. Ah me! A. P. HAMPTON.

2-A KINGLY QUINTETTE.

What king resulted in this rhyme? What king is wanting all the time? What king creates, what king destroys? And what one's always making noise? CHARLIE S. EDWARDS.

3-TRANSPOSITION.

- My FIRST is a poet, My SECOND is meat, My THIRD is to venture, My FOURTH is to cheat, My FIFTH is to move In a manner quite fleet. CHAR

CHARLIE S. EDWARDS.

4-SQUARE WORD.

1, having concentric bands; 2, drama; 3, in no degree; 4 unshaken; 5, weapons. Morley Smithson. 5-NUMERICAL ENIGMA

- My 9, 2, 6 is an esculent root. 4, 8, 5, 1 is a shred. 3, 7, 1, 9 is tenacious.
- WHOLE is covetousness. CLARA ROBINSON.

Athletic

AND

Firemen's

Chromos

Sports

Base Ball A Handsome Chromo for

advertising costs only

a little more than cheap

printed bills, but they

draw the crowd, thus protecting the pockets

of the committee.

and prices.

THE LONDON PRINTING AND LITHO. CO.(Ltd.)

Write us for samples

Answers to May 1st Puzzles.

237

1.—They were a parent (apparent). 2.—Annie P. Hampton. 3.—Notice. 5.—Leander.		4.—D iver B U nd O R ea R	
6.—Sentin		I ro N O oz K	
7	*	O oz K Nunci O	

7.-N unci O DEAR COUSIN GRACE, -I hope you will have a good time on your birthday. Augusta says she will be up on Trinity Sunday, and will stay awbile, and I think young Cleveland will be with her. I would like if you and St. Clair could be here also. I am going to put a tent up at the river at the land's end. Father has just bought me a lovely picture of Queen Charlotte, and has promised me one of Queen Victoria; I will then have three pictures, for I now have a picture of Champlain. My brothers, St. John and Albert, are going to Northumberland, and Rupert is going to London. Your sincere cousin, HOPE. 8.-Attendance.

SOLVERS TO MAY 1ST PUZZLES. J.S. Crerar, Charlie S. Edwards, Annie P. Hampton, Clara Robinson, Joshua Umbach.

A Parrot That Was Original.

There was lately advertised a parrot who could make original observations — not mere slavish "copy," but the most apt remarks. A parrot-fancier answered this advertisement, and the advertiser brought his bird. He was not beautiful, and he did not look accomplished. He no sooner opened his mouth, however, than his genius discovered his mouth, nowever, than his genius discovered itself. "Supposing that this bird is all that you say of it," inquired the possible purchaser, "what do you want for it?" "Fifty pounds," said the dealer. "Make it guineas!" exclaimed the parrot. The enraptured bird-fancier bought him at once. Weeks rolled on, and the bird never said another wordnot even that solitary sentence, "Make it guineas," which the purchaser naturally thought he had which the purchaser naturally thought he had learned by rote. He sent for the dealer, and thus frankly addressed him. "Of course I have been taken in. This wretched bird is dumb—can't even say, 'What's o'clock?' or 'Pretty Poll!'" "He only professes to make original observations," put in the dealer. "Nonsense! He does nothing but scratch himself. You have got your money; at least tell me how he contrived to say 'Make it least tell me now ne contrived to say 'Make it guineas' at so appropriate a moment. I'll forgive you if you'll only tell me the truth." "Very good, sir; then he didn't say it at all—I said it for him. I'm a ventrilcquist. My parrots all make original ob-servations, but only in my presence." Then the parrot-fancier shook hands with the dealer and gave him a list of other neurot-fanciers his neugave him a list of other parrot-fanciers—his per-sonal friends—who also in due time were taken in which of course was very soothing.

For she's one o' them things as looks the brightest on a rainy day and loves you best when you're most in need on't.-George Eliot.

CRAIGIEBURN Stock Farm.

BETHESDA P. O. G. A. BRODIE, breeder of Scotch Shorthorns. A few good young bulls for sale. Write me for prices and particulars. All orders and corre spondence promptly attended to. Mention ADVOCATE. 21-1-y-om

Shorthorns, Shropshires, and Berkshires.

Six young Bulls from 10 to 14 months old; 25 Shropshire Ewes, one, two and three years old, due to lamb in March; 15 ram and 20 ewe lambs. Twenty Berkshire Sows, from 5 to 12 months old, several of them due to farrow in March, April, and May. The above choice stock are all registered, and FOR SALE at GREAT BARGAINS. 15-y-om





12-y-om

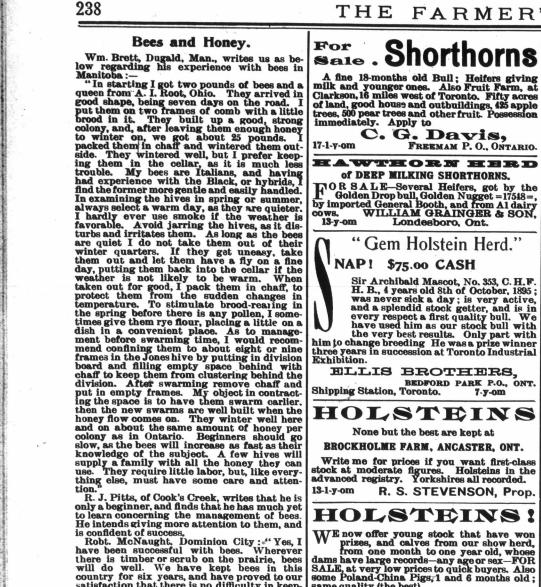
Thamesville, Ont.

THE GLEN STOCK FARM Our stock comprises Clydesdales, Ayr-shires, and Shropshires. High-olass Ayrshires a specialty. We are making a special offering of ten very promising young bulls, and a number of very choice cows and heifers of the heaviest and richest milking strains, any of which will be sold at very moderate prices. We also have Rough-coated Scotch Collies for sale, eligible for registry. WHITESIDE BROS., INNERKIP, ONT. 7-y-om

SIMMONS & QUIRIE.



Shorthorn Bull FIT FOR SERVICE ; WON FIRST PRIZE AT MARKHAM FALL FAIR; HAVE ALSO SEVERAL HEIFERS. Write, or come and see. JOHN MILLER, Markham, Ontario. Choice Shorthorn Cows, HEIFERS, and HEIFER CALVES of good milking strain, for sale at very moderate prices. Also BERKSHIRE PIGS, of October and January litters; both sex. Wm. Rivers, 13-1-y-om Springhill Farm, WALKERTON, ONT. CARGILL HERD OF SHORTHORNS. Have some good show material in show material in Heifer Calves, also some grand Canadian-bred Cows and Heifers for sale. Write for sale. V H. CARCILL & SON, 11-y-om CARGILL, ONT. IT PAYSTO ADVERTISE :-:-:-:-: IN THE :-:-:-:-: **FARMER'S ADVOCATE**



R. J. Pitts, of Cook's Creek, writes that he is only a beginner, and finds that he has much yet to learn concerning the management of bees. He intends giving more attention to them, and is confident of success. Robt. McNaught. Dominion City :-" Yes, I have been successful with bees. Wherever there is timber or scrub on the prairie, bees will do well. We have kept bees in this country for six years, and have proved to our satisfaction that there is no difficulty in keep-ing them over winter. We put them in the kitchen cellar, giving them plenty of air and we seldom lose a hive. We never put them in until the weather gets cold, about the mid-dle or latter end of November, putting them out in the spring as soon as they can begin to work;—last year the 16th of April, and they were carrying pollen the same day. We advise every farmer to keep two or three hives for their own use, but they seem to be afraid of them. The land here is covered with willow scrub. I don't think they would do so well on open, clear prairie; it would be so late before they could get pollen. The great drawback is, in our opinion, that all our supplies have to come from the East, the freight adding greatly to the first cost." to the first cost.

BOOK TABLE.



2

HOLSTEIN BULLS FOR SALE Four good two-year-olds, four yearlings, and a few good bull calves. The above stock are descended from imported cows, and will be sold at a bargain. Write for prices. 5-1-f-o JNO. MCCULLOUGH, Deseronto, Ont. Geor

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Address: SYDNEY FISHER,

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Alva Farm, Knowlton, P.Q.

Addres





E. GAUNT & SONS, St. Helen's, Ont. 13-1-y-om To Stockmen & Breeders.

LITTLE'S

PATENT: FLUID

NON-POISONOUS

SHEEP D AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc. Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy.

Marking the coar sort, shows healthy. Mar The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons inter-ested in Live Stock:

ested in Live Stock: "MAPLE SHADE" HERDS AND FLOCKS. BROOKLIN, ONT., Sept. 4th, 1890. DEAR SIR, -- I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders. JOHN DRYDEN. M Seventeen Gold. Silver and other Prize

Armers and breeders. John Diribla. Ar Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quanti-ties. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to Support Comparison of the second of the second of the second Se

ROBERT WICHTMAN, DRUGGIST, OWEN SOUND, Ont. Sole Agent for the Dominion. 7-1-y-om

A CHOICE assortment of the following pure-bred stock always on the choicest breeding and most fashionality. Our breeding stock has been selected, at great cost, from the choicest units and flocks of both England and Canada, and have been very successful the show rings. Young stock supplied, either individually or in car is the lowest prices. Prompt attention given to all correspondence. J. N. GREENSHIELDS, Proprietor. T. D. M'CALLUM, Manager, Danville, Que. IN THE REALLY HIGH CLASS Holstein-Friesians Write for particulars and breeding to H. BOLLERT, Maple Grove Steck Farm, Cassel, Ont. For Sale Cheap, That grand Ayrshire (1 HEATHER JOCK " _1212 Bred by D. Morton & Son, Hamilton; sire Royal Chief (Imp.) -75- (1647), dam Primrose (Imp.) -1205- (5607), This bull has proven a sure stock getter and can be purchased at a hargain if taken at once. Having a number of his progeny at breeding some choice young Yorkshire Sows or breeding age from the stock of J. E. Brethour. Correspondence a pleasure. FOREHMARY, Colling wood, Ont.

Alex. Hume & Co., Importers and We still have several good AYRSHIRE BULLS, of DAIRY TYPE and breeding, fit for BULLS, of bulk calves. Also a number of heifer calves from cows of several crosses and extra heavy milkers. Write for prices and particulars. N.B.-A few Yorkshire pigs of good quality, 5-1-y-o

or different ages. 5-1-y-0 Telephone and Station-Hoard's, G.T.R. Burnbrae P.O.



of one new yearly subscriber, accompanied by one dollar.-EDITOR.]

NOTICES.

NOTICES. Mr. R. J. Shrimpton, Manager of the Mani-toba Mortgage and Investment Co. (Ltd.), Winnipeg, Informs us that sales have been very encouraging up to date. This company still have some fine parcels of farm property for sale, and the terms are such that pur-chasers who are at all enterprising will find no difficulty in meeting payments. Further in-formation will be given promptly by letter or personally to any one calling at 228 Portage Ayenue. HOW TO BUY RIGHT.

HOW TO BUY RIGHT.

One of the secrets of success to-day is in buy-ing good articles for use on the farm at close prices, such as the People's Wholesale Supply Co., Toronto, Ont. [R. Y. Manning, Manager], offer in their advertisement elsewhere in this issue. Our readers will do well to examine the list. The prices are certainly put down very low, and as the offer is only good for a limited time our readers should take immedi-ate advantage of it.

HON. JOHN DRYDEN'S LATEST EXPERIENCE WITH-SHEEP DIP. Oct. 4, 1895.

Oct. 4, 1895. "I continue to use your dip regularly, and desire to say two things. First-Your prepa-ration is a perfect tick destroyer. Second-It is a powerful cleanser of the wool. I lately sent to New York State two yearling ewes, and the purchaser expressed his delight with them and wished to learn by what process I kept the wool so beautifully white. The ewes had been dipped some months before and were running night and day in the field. My answer to his question was, 'I use Cooper's Dip.''

SHEEP BREEDERS' ASSOCIATIONS.

·L/STREETERS

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President. Toronto, Canada. Address correspondence to MORTIMER LEV-ERING, Sec., Lafayette, Indiana. 3-1-y-om

TOPAL

THE FARMER'S ADVOCATE. . JUNE 1, 1896 240 JUNE 1, Siprell & Carroll, CARHOLME P.O., Ont., **GOSSIP**. IT in writing to advertisers please me e Farmer's Advocate. -BREEDERS OF-FREE G Mr. Hugh McCutcheon, Glencoe, Ont., changes his advertisement in this issue, offer-ing choice young Duroc-Jerseys from the fluest ancestry. **BERKSHIRE SWINE** finest ancestry. The 17th annual Shorthorn auction sale of Hon. H. T. Brown, of Browndale Farm, near Minneapolis, Minn., was held on May 12th. This herd has been brought to a high and desirable standing by vigilant care in selection and breeding. The best price reported is \$275, for Rosemary of Browndale 2ad, purchased by S. H. Thompson, Iowa City, Ia. Thirty-eight females sold for \$3,520, an average of \$92.00. Seventeen males sold for \$1,495, an average of \$88.00; the average for the herd being \$10.0. The c Quality of the Best. settlemen Calgary s Full Our leading sows are Carholme Queen, Carholme Lass, and Lady Lightfoot. Choice young SCUFFLER. THE MAXWELL BINDER. ROOT CUTTER. stock for sale. Correspondence solicited. Calgary a 12-2-у-о FOR good healthy BERKSHIRES and YORE. SHIRES two months old, boars ready for service, and sows in pig of good quality, OXFORD Our her all the fi pig o write The prolificacy of the Shropshire sheep is well demonstrated in a report of the lambing season amongst Shropshire sheep of Great Britain. It has been estimated by Mr. Alfred Mansell, Secretary of the English Shropshire Breeders' Association, upon returns received by him from owners of 60 flocks, that 11,766 ewes have produced and are rearing 18,275 lambs being an average of 164.30 per Toronto, hibitions. the unbea H. J. DAVIS Box 290, Woodstock, Ont. Fair, hea David Maxwell & Sons Breeder of LARGE ENGLISH BERK-W. THE MAXWELL MOWER. SHIRE and IMP. WHITE YORKSHIRE 15-y-om SWINE, SHORT. HORN CATTLE, and lambs, being an average increase of 164.30 per cent. It is worthy of mention that a number of reported losses were said to have occurred from too liberal feeding of roots before lambing time. ST. MARYS, ONTARIO, CANÁDA HERR SHROPSHIRE 8-y-om SHEEP. time. H. J. Davis, Woodstock, Ont.:-"Business has been fairly active in the different lines of stock. Have recently sold to John McComb, Harrington, a very fine Shorthorn bull, and three others to go to B. C.; thirteen head of Shropshire sheep to D. G. Hanmer & Sons, Mt. Vernon; also two ram lambs to an agri-cultural society in N. B.; and in hogs have done a steady trade since the shows. Have sent several to Minnesota and Kentucky, and a very fine show sow to Messrs. Metcalf Bros., of New York State. Am now taking orders for young pigs. Have still a few very fine young boars fit for service on hand." MANUFACTURERS OF BINDERS, MOWERS. W. P. HUFF, CHATHAM, ONTARIO. Poland-Chi REAPERS, HAY RAKES, HAY TEDDERS. -BREEDER OF CHOICE TAMWORTHS HAY LOADERS, SCUFFLERS, Descended from the stock of John Bell, of DISK HARROWS, TURNIP SOWERS, ROOT TEDDER. Amber, and the Grant & Co'y importation. Young stock of No. 1 quality always on hand. Some choice sows now ready to breed. Rock-bottom prices. 21-1-y-0 CUTTERS, WHEELBARROWS, ETC. RESPONSIBLE AGENTS WANTED IN ALL UNOCCUPIED TERRITORY. THE FA Are of th young boars fit for service on hand." The American Southdown Breeders' Asso-clation offered a gold medal as a prize to its member scoring the highest number of points in prize winnings with Southdown sheep at the exhibitions of 1893. The committee who looked after the score was made up of Messrs. J. H. Picknell, S. E. Prather, and Chas. F. Mills, who presented the coveted trophy to the winner, Mr. Geo. McKerrow. Sussex, Wis., who scored during the year 2,342‡ points. Mr. John Jackson & Sons, Abingdon, Ont., made a close 2nd by making 2,192‡ points, while F. W. Barrett. Wadsworth, N. Y., secured a total of 2,037‡, and W. E. Spicer, Harvard, Neb., who visited only four fairs, scored a total of 1,052½ points. NORMAN BLAIN, have you and imp choice so Joe. Th right pri COLD SPRING FARM, - ST. GEORGE, **Breeder of Choice TAMWORTHS** see niy s 13-1-y-0 STEEL HORSE RAKE. Young boars fit for service, and sows ready to mate. Orders booked for April and May pigs. Prices moderate. Correspondence invited. 5-1-e-0 ESSEX R.B. Goldsmi Importe of Regis Woodlands Herd China S stock fo istered r nished. hatching varietie of TAMWORTH SWINE. of 1,0521 points. Choice young stock from Imp. and home-bred stock. Pairs not akin. Write for prices. DISK HARROW. LOADER. TURNIP SOWER. CAI H. REVELL, W - prese Proprietor, Ingersoll, Ontario, In the Kitchen Elmdale amworths Herd of The heat from cooking during summer months with an ordinary cook stove is very fatiguing. The first-prize boar under six months at the Western (London, Ont.) and other fairs; fit to head any herd; also September pigs Cooking Can be Done from prize-winning stock. on a "Splendid Oil Cook Stove" JOHN C. NICHOL, Hubrey, Ont. Add 17-y-om With Comfort 53 females sold for..\$11,230; average of \$212 00 10 bulls sold for... 1,705; 170 00 at a small cost. 63 animals sold for . \$12,935 ; 66 \$205_00

MR. JOHN MILLER'S SHORTHORNS.

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63 animals sold for \$12,935; "\$205.00 MR. JOHN MILLER'S SHORTHORNS. We recently had the pleasure of calling on the well-known breeder of Shorthorns, Mr. John Miller, of Markham, Ont., whose herd has established the reputation of producing some of the choicest stock exhibited at leading fairs. The stock is mostly of the old Sims family, and includes some grand breeders. Rose Montrath 3rd is still in the herd, and has proved herself one of their best breeders; she was sired by the grand stock bull, Vice-Consul 4132. Rose Montrath 5th and Rose Montrath 6th, daughters of the above cow, are proving themselves wonderfully good breeders, pro-ducing stock of exceptional merit; these two cows are sisters to the famous winning cow owned by E. B. Mitchell, Ill. We were most favorably impressed with an exceedingly handsome red bull calf out of Rose Montrath 5th, by Wimple's Heir 14529; this calf is of handsome build throughout, a capital handler, deep, rich red in color, and has a style and finish about him that will win him many admirers in the show ring, and we look for a successful career for him in the ring this year should he continue to improve as at present. We also saw a very handsome roan out of Rose Montrath 6th, by Aberdeen (a bull that has been in use for some time on the herd). Aberdeen never was beaten in this country as a show bull, and has been a grand stock getter. The last mentioned calf is thought by some to be the better of the two, and a deep, thick-fieshed fellow of grand quality he certainly is. Either of these calves should come well to the front as show bulls, and should top any herd with success. They also have a fifteen months old bull left, out of Rosy Nell 4th =16348=, and by imp. Mexico =4114=. He won first at Markham fair over the third prize calf at Toronto, and without doubt would prove a heifers and heifer calves over, we concluded that it would take good ones to win the rib-bons from a beautiful roan heifer out of Bash ful =18173= and by Hopeful (imp.)=6375=, dam Mara Montrath by Lord a their home, and whose produce are gener-ally winners when shown at Canada's leading





17-y-om CAPT. A. W. YOUNG, Tupperville, Ont.

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of testimonials and invoice dated this season. It will pay you. Also ask for our Yellow Dent, which is very choice. Our sales this year have been very heavy.

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the Farmer's Advocate.

Bar None Conqueror 14467, one of the best known Shire horses in England, the property of Mr. Grandage, Bramhope, Leeds, died lately of lymphadenoma. He was six years old, but had been very successful in the show ring and as a breeder also.

Sales of breeding sheep have commenced very briskly for so early in the season. A Shrop-shire breeder writes us that the other evening he received \$100 per registered letter for a pair of ewes, his surplus ewes being nearly all ordered for later shipment, and several rams

also. Mr. H. E. Williams, Knowlton, P. Q., writes: "Since writing you, I have had my herd of pure-bred Jerseys tested by official test, show-ing an average of 6.60 per cent. butter-fat-Babcock test. This includes seven heifers two years old. Lady Green of Belleview made the remarkable test of 9 per cent; Beauty of Meadow Sweet showed 8 per cent. three months after dropping a fine heifer calf. Have stock from these cows for sale. See advertisement."

from these cows for sale. See advertisement." Prof. Wilckens, of Vienna, whose investiga-tions on the subject of regulating sex in horse breeding have been extensive, is of opinion that sex is determined when the dam has passed about one-third the period of gestation, and that its determination is regulated chiefly by the bodily condition of the mother at the time, and that a well-nourished foctus is more likely to be a female than a male. In so far as stallions are concerned, age seems to exercise but little influence in determining sex, while as regards mares the case is somewhat differ-ent. This he also puts down as the result of nourishment in the dam, the old mares being not so strong as the young ones. Mr. F. Bonnevcastle, Campbellford, Ont.,

not so strong as the young ones. Mr. F. Bonneycastle, Campbellford, Ont., writes :--"We could have sold a lot mere balls if we had them, as there has been a great demand for them. We have made the follow-ing sales since we commenced advertising with you: One bull to G. Bedford, Campbellford; one bull calf to F. Peake, Belleville; one bull calf to W. H. Chapman, Ivanhoe; one to Henry. P. Jose, Halloway; one to John Blessard, Wark worth; one to J. A. Sutton, Ida; one bull to John Givan, Campbellford; three Berkshire sow pigs to J. B. Ewing, Dartford; one sow to Robert Campbell, Roseneath; one boar te J. H. Isaacs, Charlecote; one boar to George Duncan, Campbellford; one to George Hay, Campbellford; one yearling ram and one ram lamb to J. Buchanan, Norwood; one to S. Little, Campbellford."

THE MAPLE LODGE SHORTHORNS AND LEICESTERS.

Little, Campbellford." THE MAPLE LODGE SHORTHORNS AND LEICESTERS. "Maple Lodge, "owned by Mr. Jas. S. Smith, so called from its handsome belts and beauti-ful groves of fine maplee, is located near Lucan Crossing, on the G. T. R., and may be classed among the finest stock farms of Ontario. It comprises an area of nearly three hundred acres. With well-kept garden and lawn, neat and substantial brick dwelling, fine, large, modern barn and outbuildings, well tilled field, and broad acres of rich, wooded pasture lands, Maple Lodge leaves little to be de-sired as farm and stockman's home. As we-strolled over the farm with a genial conductor, the thought presented itself to our mind, what a find armers evinced the same taste, skill, and industry as the above. The Shorthorn herd is still large, although considerable sur-plus stock was disposed of at their recent sale. The stock consists of pure Bates and Cruickshank blood, and Bates topped with Cruickshank blood, and Bates topped with Cruickshank blood on Bates topped with Cruickshank blood for \$13.500. In the pastures is able on the stock consists of pure Bates and families, while others are by Duke of Cloonus -9282 - by 54th Duke of Orford, who was sold for \$3.500, he being by Duke of Clar-ence (\$3597), sold for \$13.500. In the pastures eight beautiful yearling heifers were seen, of the even, thick-fieshed, short-legged type. They are an unusually uniform lot, of excellent quality, and we have yet to see an evener lot. They are an unusually uniform lot, of excellent quality, and we have yet to see an evener lot. They are by British Flag 1855, one of the stock buils now in use; a handsome, stylish bull, of great constitution, he being by Barmpton Hero, one of the most successful size of prize winners in Canada. The two-year-olds are of much the same type as the yearlings, and are maturing into exceptionally handsome cows, they being sired by Lavender Prince = 14825=; bred by Hon. J. hn Dryden, Brooklin. The Lavenders heifers should pay a visit to the maple Longo-herd. Last, but not least, is the handsome Leicester flock, comprising sheep of grand quality, of which a number are selected and are being prepared for the coming fall exhibitions. Among them are some exceedingly fine speci-mens, and from present indications we would predict that a large share of the red ribbons must surely fall to this flock.

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ADVERTISE IN THE FARMER'S ADVOCATE.



Britisn Columbia-S. F. Toime, vietoria, H. C. Dircetors.-A. G. Bowker, Woodstock, Ont; Robert Graham, Claremont; John Holderness, Toronto; Robt. Davies, Toronto: John K. Macdonald, Toronto; H. Awrey, Hamilton; Robt. Bond, Toronto; R. McEwen, Byron; Robt. Miller, Brougham. Auditors-G. H. Hastings and Geo. Pepper

Delegate to Industrial Exhibition, H. Wade.

