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## Yol．KiV 戉 1.12

Montreal，DEGE思BER 1892 \＄1．00 por amulim，in auvance

RGTMCE．－The subseription to the Illustrated Journal of Agriculture，for members of Agricultaral and H irti－ oultural Societies，as well as of Farmers Clubs，in the province of Quebeo，is 300 annually，provided such subseription be formarded through the secretaries of such societies．－Edrobifle mattee．All editorial matter should be addressed to A．R．Jeaner Fust，No． 4 Lincoln Avenue，Dorehester Street West，Montreal－or to Ed．A．Barnard，Dircetor of the Journals of Agriculture，so．，Quebec．

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The Eleventh Convention of the Dairymen＇s Assoclation of the Province of Quebec．

The eleventh meeting of the above association will bo heid at Ste．Therese de Blainville on Tuesday and Wednesday the 13th and 14th of December，and not on the 14 th and 15 th as erroneously stated in the last number of the Journal．
＂lisnecul Frollé．＂This French coaching stallion seems to have had a most successful season in 1891．Be served 49 mares and they all stoo？to him， 4.7 foals beng still in existence and doing well．More about this successful sire in our neat．

COPY of a report of a Committee of the Honourable Executive Council，dated 29th September，1892，approved by the Lieutenant Governor，November 17 th， 1892.

No．638．－On the nomination of members of the Provin． cial Council of Agricultare．

The How．Commissioner of Agricilture and Colonisation， in a memorandum，dated the twenty－ninth of September， 1892，recommends that the Orders in Council，No．400，of September 2nd，188：1；No． 611 of Dewember 13th，1890，and No．322，of June 2nd，1891，appointing the present members
of the Ceuncil of Ayrioulture of the Provinoe of Quebee, be revoked, and that the cand Council of Agriculture be in future composed of the following persons :-

Hon. A. C. P. R. Landry. Senator. Beauport.
Hon. John MeIntoh Ayronome, Waterville.
Hon H. G. Joly de i.otbinière, Agronome, Lotbinière.
Rev. M. 'T. Montminy, Cure of St. Georges, Beauce.
F avien Dupont, Notary, St. Liboire.
Bevjamin Beauchamp, M. P. P., St. Hermas.
Milton McDonald, M. P. P.. Acton Vale.
Joseph Girard. M. P. P., St. Gedéon.
Joseph de la Broquerie Taché, Notary, Ouebec.
I. J. A. Marsan, Professor, School of Agriculture, l'Assomption.

Robert Ness. Frecholder, Howick.
Thimothé Bredeur, Freeholder, St. Hugues.
Charles D. Tylee, Freeholder, Ste. Thérese de Blainville.
Henry S. Foster, Agronome, Knowiton.
Rev. M. E. Dauth, Cure of St. Leonard.
Dr. Wilfrid Grignon, Frecholder, Ste. Addle.
Basile Lamarre, Freeholder, Longueuil.
Rer. L. O. T'remblay, Director of the School of Agrioulture, Ste. Anne de Lapocatiere.
A. A. Ayer, Bisporter of butter and checse, Montreal. Ora P. Patten, Freeholder, agent, Montreal.
Andrew J. Dawes, Agronome, Lachiue.
Certified.

> (Signed) Gdstave Gremier, Clerk of the Executive Council.

Notice-Gratuitous distribution of plans of barn-byres and of pamphiets on drainage.
The Hon. L. Beaubien, Commissioner of Agriculture and Colonisation, requests us to inform our readers that, by addresing the Secretary of the Department, plans of barn byres and pamphlets on drainage may be obtained gratuitously.

## Notice-Herd-books

Dr. Couture, 49 rue des Jardibs, Quybeo, is the secretary of the herd-books and stud book of Canadian cattle and liores, and of the swine and sheep registers recently opened by the Council of agricalture.

In future, all requests for registry in the above books as well as all letters, documents, \&c., connected with them, should be addressed to him.

All letters requiring an answer must contain a 3 cent stamp.

> Ed. A. Barnard,
> Sce. Coun. Agriculture,
> Dircetor of the Journals of Agricullure.

## Agricultural Clubs.-Important Notice.

The agricultural clubs alrcady in existence and those shortly to be instituted, are requested to apply to the secretary of the Department of agrioulture, who will forward to them, gratuitously, for the use of their members, certain pamphlets on agriculture, and all the information on that subject that the department is able to afford them.
H. G. Joly de Lotbiniere,

Pres. Counoii of Agrioulture.

## Sitrogenolta Manuren.

The consideration of this subject is of primary importance breause nitrogenous manures are more essentia! than any other kind of mauures to the farner who wishes to obtain from his land its maximum yield of crop. They are, beides, the most expensive manures which the farmer has to purchase; not that nitrogenous manures alone, in whatever quantity they may be applied, will produce a maximum return in cropi ; they will not, because although nitrogen is the mont essential, and at present the most expensive, food which plants require, still it is not the only food required, and if a orop has not available supplies of phosphorie acid, potash, and lime in quantitics adequate to the full growth of that crop, no amount of nitrogenous manuring will remedy the deficiency in the other plant foods. As Liebig expressed it very many years ago in his " Law of Minimum," it is that plant food which is present in least quabtity in a soil that regulates the maximum amount of crop which that soil will produce; for if a soil be deticient in any onc substance-nitrogen. phos. phoric aeid, potah, or lime-it will not give its full possible yield of crop until that deficiency be remedied. I have often met men who ought to have known botter ask for crideace of the use of nitrate of soda and sulphate of ammonia when applied without any other manure whatever.
Both nitrate of soda and ammunia salts will give much greater yields than no manure at all. Thus on the average of ifteen yeass' permanent wheat crowing at the Royal Agricultural Socioty's experimental farm at Woburn, Bcds, the plot receiving annually a dressing of 200 lbs ammonia salts (cyuivalent to 50 lbs ammonia per aere) gave 25.1 bushels of dressed corn and 24 cwt. of straw per acre. The plot receiving a dressing of 275 lbs . nitrate of soda (also equivalent to 50 lbs ammonal per acre, gave an average yield $f, r$ the fitteen years of 24.9 bushels dressed cora and 25.4 cwt. straw. per acre. The gields on these plots compare favourably with the uamanured plot, which shoms an average of 16.2 bushels of wheat, and 16.8 cmt . straw per acre. I think that the necessity of nitrogenous manure is even better shown by the fact that the plot receiving a full dressing of mineral manures only just beat the one reeciving no manure at all by haif a bushel of wheat on the average of the ifften years.
In the case of the permanent barley plots at Woburn, the difference is even more marked. Here we have from the unmanured plot a yield of 24.6 bushels of barley, and 14.1 cint. ui straw. With 200 lbs ammonia salt per acre we get 37.7 bushels of barley, and 214 crt. ef straw ; and with 275 lbs. nitrate of soda per acre we have 386 bushels of barley and 23.2 cwt . straw.

These results show conclusisely the value of nitrate of soda and ammonia salts, even when used alone, and uscd, too, upon land where the same crop is grown contioually year after year.

The influence of nitrogenous manuring is even more marked in ordinary rotations. A friend of mine, in dressing a field of swedes with nitrate of soda left a strip six yards wide down the center of the field without any nitrate dressing. The result was shown by a considerable deorcase in the gicld of rots over this strip of land as compared with the yicld in the res' of the field. The barley in the following year received 1 owt per acre of nitrate of soda all over the field, but along the strip where nitrate had been onitted the preceding year the barley at harvest mas not so high by full six inches, and even in the third year on the secds the position of this strip was distinctly marked by the appesrance of the crop. And now baving shown the great value to the farmer of artifioa! nitrogeuous matures, let me consider in dotail the sourecs of
these manures and their relative value and suitability ior difforent purposes.

Nitrile of Nodn.-This manure mast be considered first becouse it is now the commonest and oheapent form to whioh nitrogenous manure may bo bought. Another greal ad...n. tage in the use of nitrate of soda is that at alre... contain. its nitrogen on the only form in whioh it can be takn up by plant:-in the form of nitrate -..for so far an our preseat know. ledg. groes it is only in this nitrate form that crops can take up the nitrogen which they regrime. Hence it is that nitrate of soda iv a quek-acting menure, being very soluable in water it is taken up by plants readily if a shower of rain succeeds a top dressing with this salt and its stimulating effects are almost inmedintly seen. That nitrate of soda aots not only as a food but as a stimulant there can be no doubt. It forees the crop to take an inereased amount of mineral matter out of the land, but the increaved erop far more than compensates for the expense of applyng mineral manures the following season. It i: owing to the guick stimulating effect which nitroe of sods exerw upen a growny orop that a dressing of it is so valuable as an antidote to the attacks of the curnip-fly, or of the beet-fly, which is much too prevalent this season. Such a dressing causes these root crops to grow rapidly beyond the power of the fly to destroy them, for, epecially in the case of turnips, it is only when the plants are small and as it were, at the beginning of their growth that the attack of the fly are so deadly.

Nitrate of soda dues best with meadow grasses, with Ita lian ryurass especially, and with cereal crope. Mangels, too, nee 1 it, and indecd there is probably no field orop whira will not benefit at some period of its growth by the judicious applieation of this manure.

Nitrate of soda is chiely obtained from Peru and Bolivia, and after purification it is put upon the market.

Sulphate of a:nmonia.-The sulphate of ammonia of commerce is obtained from the ammonia liquor of the gaswork. It is the most valuable nitrogensus manure known, if we except the murbate of ammonia, which is obtained from the same sourec Sulphate of ammunia when pure, contains 255 per cent, of ammonia, but an average sample wili contain about 1 per cent. less. It is useful as a top dressing in the same way as nitrate of soda, but does not act so quickly as the latter, because the ammonia which it contains must be tran-furmed into the nitrate condition before a crop can make use of it.

This transformation is effected by means of the mitrifying bacteria of the soil, the study of which is an axtremely comp!ex and difficult one. However, it had been demonstrated that the micro organisms which take part in the work of nitrificathon cxist in most soils in great numbers, and are of two kinds. The action of bacteria of the first kind is to convert the nitrogenoue matter in the soil, whether it caists in the form of ammonia salt or as mitrogenous organio matter, at first into an intermediate acid called nitrous acid, and it would appear that these particular bacteria canoot carry the change further. 'There is, however, a bacterium of another kind present which has be power of completing the transformation and converting the nitrous acid into vitric acid by some process of oxidation. Hence, where the two kinds of bacteria are present together in a soil (as they gencrally are) the two changes will go on simultancously.

It is generaily said that sulphate of ammonia docs better in a wet season than nitrate of soda, because the former is not so casily washed out of th: soil as is the latter, but for the last fifteen years at Woburn the pitrate has the advantage. Of the permanent wheat plots that getting mineral and nitrate gives an average increase of 2.3 bushels dressed corn and 4.7 ewt . straw over the plot receiving the equivalent
amount of ammolia galta and mineral manares. Similar re $-u l t s$ are obtained from the permanent barley plots, here the tigures being 1.9 bushets dressed corn and 3.4 ewt. straw.

Arranged in tabular form, the resulta oan bo compared much more easily. The mixed minerals consisted of 201 lb sulphate of pota-h. 100 lb . sulphate of soda, 100 lb . sulphate of magnevia, and $3 \frac{1}{2} \mathrm{cwt}$. suporphosphate. These quantitics were used year ofter year, not from any idea that they were all wanted in such quantities, but to ensure that there was no essertial mineral constituent deficient in the soil. Note that 200 lb . ammonia salts contains the same value of ummona as $\because 75 \mathrm{lb}$. nitrate of noda.

EXIGHGQEV UN PEHMARENT WHEAT AND DAHLEY AT KOBURN. AvBRacis of 1.5 yr,Aic--1887-1891 noll'sifs.

| $\stackrel{0}{-1}$ | Manure per Acre. | Permanent Wheat. |  | PermanentBarley. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bush. <br> Dress'd <br> Corn | $\begin{aligned} & \text { Cwt } \\ & \text { Straw. } \end{aligned}$ | Bush. | Cwi. <br> straw. |
| 1 | Unmanured ......... . ............. | 162 | 168 | 246 | 141 |
|  | 200 lb ammona salts .. ........ | 251 | $2 \times 0$ | 377 | 214 |
|  | 255 lb mitate of soda.. ......... | 249 | 254 | 386 | 23.3 |
|  | Vised mineral manures......... | 167 | 17.5 | 232 | 128 |
|  | ; Mived minerals and 200 lb ammonia salts | 311 | (1) 0 | 42.1 | 248 |
|  | Mixed minerals and 275 lb nitrate of soda............... | 334 | $34.7$ | 44.0 | 282 |

## SQUITCH.

"Squiteh, or coucherass, is one of the closest friends a farmer has. The poorer the farmer gets, th greater will be the number of his fricods of this class. The poarer the squitch is, the harder will it be for the farmer to get rid of it. Good, nealthy, fat squitch is comparatively casy to exter minate, especially when it grows in good long pieces, a foot or more loug; but that nasty, short, thin, half-starved stuff is an abominable nuisance. If a piece only half-an-inch long is overlooked, it will take root and spread away like anything. Just let a piece of squiteh get its head under the soil, and it will burrow away like a mole and spread in all directions. It is wonderful what vitality there is in a piece of dried and withered-looking squitch. Thougb to all appearances quite as dead as the proverbal mutton, just let it havg its head and the dried-up stuff grows away like a willow. The great questios is how to get rid of it. The cultivator is far preferable to the plough, as it pulls it up and does not cut it like the coulter of the plough. I have seen land so full of squitoh that the coulter could not cut it, and the plough had to be stopped once in eighty yards or so to take it off, but I hive secn this only once or twice, and then the land was in a fearfully dirty state.
"The creat thing is alwags to keep it on the top. Cultivate the land once or trice if necessary, but always clear away all that is on the top before you plough up more. When the cultivator has got it up, then harrow it well, first with heavy (modium) barrows, and thed with light harrows, and then, as a fiuisb, run the chain harrow over it, as by the last process it knoeks all the soil from about it, and leaves it in cigarettelike rolls. The next step is do to it exactly the same as you do to a cigarette-namely, convert it into smoke and anh! This is the safest plan, and, when it is being burned, see that it all is burnt, as if this burn oo is carelessly done th out-
skirts of the fires are left alive, and then a new stock is left to grow again.
"Some people say, " plouel: it under deep, and it wall smother it." But that is a risky plan, and one that oan never be reaily relied upon. The only safe plan is to get rid of it enther by carting clear away or by burning, and, as the Irishman said, "Be carcful where you put the ashes." For my own part, I clearly prefer burning to oarting away, as the ash contains some useful manure, whereas if you cart it away it deprives the land of that benefit. Une way of fimshong off is to caretully piek by hand the drills when they are first drawn up, and thea again when the manure is put in the drills and the drills are covered up to go over them agein by hand. By thas meats you get very nearly all the squitch that is in the land Thes plan may be objected to as being coolly, but it is well worth the trouble, as I have found from wy own experience.
" Wany people neglect to clean the headlands, but this is sui cidal, as it leaves a stock which will quickly cover the land as when it ia ploughed asain for a corn crop duriog the plough turnaus on the headlands vall pieces catch on 'o the coulter and are carried into the field. and these take root and cause endless trouble the nest time the land $1 s$ precu-cropped. Besides the headlands, the hedegrows in the field form a oursery for it, for often the grass is not mowed round the hedges till late autumn, by which time the seeds are all shed and are sowing the field afresh.
"V etches are often somn on squitchy lend. as they are said to "smother" it; if this be so, "grood 'uck to the vetches " But there is no plan to be compared to that of getting it out of the land. Why should the land waste its strensth in growmg crops useful to man and beast?
"I have muxed the squitch I have earted off the land green. with hime, and it makes excellent manure for grass land, but the heap requires turning over two or three times to ensure it being properly kulled, and this costs money. The ouly way is to bura!burn!! burn '!!
"It has been said that by putting it into the drills intended for potatoes, and then putting the manure on to the squitoh before the potates are set, we can $k_{1}!l$ it; but it is a risky ray, as, uoless the potatoes are very heavily covered with soli, the squitch will force the way through, and will fatten upon the manure intended tor the benefit of the potatoes. Many people think that Italian ryegrass is a great cause of squiteh in land, and if this be so it is very hard on us, considering the heayy prices we are charged for grass seeds; but I have never come aoross any rehabie proof of this, and should be only too pleased to hear of any experiments that may have been made as regards the statement
"Autumn cultivation, if the weather be suitable, is the best way of cleaning land, as then we are not so pusbed for time as we are in the spriog, and we can get the squitch more casily out, as it will have grown nearer the surtace during the summer, for we must always bear 20 mind that squiteh is naturally a surlace-groming plant.
"In some parts of the country they fork oper the stubbles and get the squitch out, but this is costly, and it is very difficult to get it out entirely l.y this means. The only way to realiy clear the land of squitoli is to burn it; all other ways are merely pretences. Dead men teli no tales, and so dead squitch leaves no roots, especially if it has been well burnt first. Of course, if we could afford to fallow a field during the summer we sbould have a far better chance of thoroughly purifying it but as fallow fields furnish no rent. re are unable to follow this plan in these days of agrioultural depression. In oleaning land, bissdes the weeds we have to fight with, there is always another enemy (?) we have to contend with, and that is the woather. You cannot clean land of weeds in wet weatber, unless the weather oe right, you may employ
a seore of men and horsea, but you san never get your land clean.
"In conolusion I mould say, keep getting the squitch to the surface, and when it is there burn it."

## CORN FOR FOWLS

There should be nu controversy about the value of corn fir freding ponltry. Mr. (Yrosby and Mr. Be'a'e louk at this matter from different poines of viow, and chmate, as suggeoted by Mr. Beale, must be takeo iotu consideration. Corm is not well understwod by the English people; for in a prom. inent agricultural work, Stephen's Book of the Farm, it is, or Was in au carly edition, stated that forls could nut swalow this grain, which was therefure unfit for feeding to them. I have been kecping poultry vometimes extensively, nearly a thunsand old and young at one time, aud coro has been the on'y grain food. I have never had any cholera or other common diseases in my fluek, but I have almays measured the food and strictly avoided overfeeding. By such and other procintions in regard tu healihfal covisuncuent.s, furls may certainly be fed on corn as the single grain food.

No doubt there must be a proper balanoing of the food to cosure health of ang animal, but the hen must consume a large amount of the heat or fores (fynongmous term) of the food in the production of the large number of egres she lay 4 . The white laborers of the South (" poor whites," as they are commonly callod) live on corn, and this in a hot climate, and as a rule they dispoe of very little surplus heat by work, but get theg are healthy and long-lived. It is a fact to be deplored that the Europeans are not better acquainted with this staple rrain of ours, or able to accommodate the uselves to ity peculiar but not I sti!, $r$ rable flacu), for it is a better balanced food (1) for fowls than the barley commonly fed in Enyland, taking into consideration the large quantity of fat in the egge they produce. Yet it may not be a suitable food altogether in England, while it is the very best for the American hen. But I think even in England it rould be found, when fed in proper rations, consistent with its dietetic character, an excellent staple grain zot only for the fowls but also for the horses. This, however, may be impracticable, as the grain cinnot be grown there, and of course cannot displace the home-grown "corn." (2)

Henby Steviart.
Country lientliman.

## HOW TO DRESS A CAPON.

A capon should be dressed very differeat by from other fowts, as the manner in which it is done secms to identify these tirds nith others in our markets.

A capon's head is never cut off uor should his throat be cut on the outside.

The bird should be stuck in the back part of the throat and allowed to bleed from the mouth, care being taken to keep the blood from soiling the feathers as we shall see that many of them are left on the bird. Begin as soon as possible after ticking to pluek the feathers using exira care to prevent tearing the flesh.

It is tender and fat under it and tears casily. So look out. Leave all the feathers on the legs half way up the "drumstick" all the tail feathers together with those, say, two inches up the back from the tail covering the oil vent, the bunch of loag feathers fund on the hip or just below it.
(1) It is very disagreeable to some people
I cannot bear it.
A R J. F .
(2) 1. e. osta.

Jeave on all the wing feathers from cod of wing up to first joint and all the feathers from the head baon to the breast, including the long haoklo feathers whioh are very nandsome in a capon.

Leave the head on as it has a very peculiar lonk or appear. anee, and reems to distinguigh the oapon more than ang thing else.
('ut around the vent carcfully and draw out the entrails. using care to strip off and pu-h back the abundance of fat that will be found upon the m Nothing dive i removed. The orop must be cmpty by keeping feed and water from the birds twenty four hours, previous to billing.

Wash the head and mouth clean of all tlood and the feet and legr of cuery particle of dirt, and the job is completed. The reason so many featlecrs are left on is that it is the oustom to do so, and the reason for its having become a oustom is that the plumage of a capon is unusually profuse, lung and brilliant and is supposed to make the bird louk more attraotive. But the real distinguishing feature of a capon aside from its plumage, size, legs and feet, is the birds head.

No one oan mistake a capon after once haviry ubserved that head.

It is hard to describe just how it looke, but it has something the shape of a hen's.

No comt of an; size, wattles very small and a sort of hairy feather grows out on top of the head. standin; up separate from the others.

The white head has a sort of snaky look.
The lirds should be packed 'a a clean bux lined with white Puper, with heads down, and when they are ready for market they are sure to bring the owner a big sum of money and will pay him as large a profit as any hen he has on his place.

If any of your readers will send me poutage, I shall send them directions how to make a sapon:zing Table.

Gerrae Q. Dow.
North Epping, N. H.

## TOMATOES

Singlestem tranning, says the Ohio Bulletın No. $\overline{\text { B }}$, gave twice as much yield per square foot as ordinary culturs, with somewhat carlicr results. and it greatly decreased injury from rot. Although requiring too much labor for field culture, it is fitted for carly marker ur for home use.

Perfectly right is this statement. We all know what a late, moist spring was that of 1892 , a spring highly favorable to growth of leaves and stem, but, on that account, hostile to the production of fruit. Yet my tomatoes, grow. on a singlestem as usual, in a very shady biekyard in Dorohester St., Montreal, ripened fruit by the 3rd August. Planted at dis tances of $18 \times 18$ inches, the 16 plants-that was all I had room for-gave me $48 \frac{1}{2}$ dozen tomatues, all of which ripened, except five ycllow beasts on a plant that had crept io unknown to me.
A. R. J. F.

Cauadiar Stock can compete.
(Special to the Star.)
"Ottama, Otober 15.-Prof. Saunders continues to receipe gratifying assurances from the live stock association in the United States that Canadian-bred registered stoek will be allowed to compete for the speoial premiums offered at the World's Farr The latest body which Las intimated the eligibility of Canadians in the special class with which it deals is the Hampsbire-down Breeders' Association."

I begin to think there are no Hampshire-downs in Capada.
A. R. J. F.

## A BUYER'S NOTES

## By John A. McDonalid.

> (Rrad at the Ifontmanmy metmy of the ll. Ass.)

Mr Presilent, (irillimu'l.-Ia venturing to oddress a few remarks to the onivention, I will endeavour to bring before your notice a few facts concerning evils at present "xisting in the management of the Dairy Industries of this pr nee, which might very well be abolished, and also to im. provemeuts wheh might be made, the attention to which might tend to advanoe the dairying industry in the province.

During the past season I have had ample opportunity to compare the w stern dairying with that of our province, having visited ohecse foctories in the Iugersoll rection of Wentern Ontario, ulso some in Northern New Yurk State, and having made quite a number of trips through the province of Queber, and I must confess that there are many improvements, which might be cupied by us from our fellow. dairymen of the West.

At the beginning of last season $l$ had the pleasure of visit. ing six or seven fuctorics in the Ingersoll section, and while thero, I made cheese in a factory owned by a Mr. Sweet.

To begin with; the faotory buildings are very muoh superior to those in our province, mostly of them being . . ry substantial in loth size and appearance, and being olay boarded on the outside, and painted.

The making room, I found to be very !arge, and made perfectly cumfortable and warm, being weli lined, and all the equipments were first class in every way, and kept taultlessly olean and in order, nothing at all being waating for the manufacture of first class cheese.

The curing room is entirely separate from the making room, being some ten feet away. The ohecse are taken from the mabing room to the curing room, where the temperature can be regulated at from seventy, to seventy-five degrees in the warmest weather, or at any time. In thes way they escape all the steam from the making 100 m , and heat from the boiler, which so often injures the cheese in this province, causing them to get over-heated before they are oured, and go off fl avour on $t$ ' shelves before they aro ready to ship. The curing rooms were double-boarded, papered and clapboarded, and most of them lath and plastered on the inside, in fact, as comfortable as a dwelling, which enables them to regulate the temperature all the year round; a feature which is well worthy of your notice.

The milk is weighed and inspeoted by the maker as it comres in, and any milk that he considers not fit to make a first class cheese, he at onee rijects, and seade home; and the patron may take it to a neighbouring factory, only to fiod that it will be rejncted there. That is a standiag rule am ag the factorymen there, that when one maker rejects any mulk, no one else will accept it; the patrons in consequence take the best ef care with their milk, using aerators, and in general taking the utmost pains to send fist class milk to the factory.

I was present at the reception ur che milk at Mr. Sweet's fastory in Ingerooll one morning during the last week in April, before the cows had been turned out to grass. I examined every can of milk as it came in, and did not find one can tainted out of $7,000 \mathrm{lbs}$. of milk.

The cheese maker vioits every ore of bis patrons at least once every week, sometimes twice; and should he fiud any une of them negicoting his duty as regards the ciearlibess of his cans, (keeping them near to his whey tank, or anywhere where they might be subjected to the odours of his $f: m$ yard, and be liable in any way to foul the milk), he will at once tell him, that unless the matter is attended to at once,
he will reject their milk. In this way he acouress first olase milk.
In Not thern Now York Site, my experience was not up to that of my Western Ontario trip, but still I found their factories ahead of some of our factories in this Province ; bat I would urge you to take pattern by our Western Dairymen, and uot be ountent with trying to equal them, but go in to axoel them, and this ane ouly be doae by atrict attention to the matters that I bave made referenso to.
After having visited the Ingersoll seotion, I cannot be at all surprised that their cheeso hould be looked on with so muoh more favour than ourd, and command a better price: the reason is before you, and it is for you to remedy the present atate of affair. You have the pastures and the eattle ; and you ouly want the oare and attention to your milk and factory which the Westerner gives, and there is no reason why you should not equal him in quality.

It is discouraging to oheese buyers to have to buy through this Province to compete with Western oheese, and when the fault is often put on to the buycr's shoulders it really lies with the factorymen.
So much for improvaments which may be made; now a word or two in referenve to our laspeotors and their work in this Province.
During the past season I bave bought cheese all over the province of Quebea, and visited every section whero they had an inspector, with one esception, that beiag, Chionutimi : I was through the Eastern Townships, and there I found a geat improven.ent. The patrons had done their utmost to take good care of their milk, and the result was easily seen by their oarrying off the prizes at the Fair at Sterbrooke, whech was open to the Dominion; this is different to what it was in the Townships two years ago, when their che se had a very bad favour, which seemed hard to get over. I think the greatest improvement in the province can be notied in the Townshipa, and I consider it due in a great measure to the work of the inspectors; this seems to be more the case when comparisuns are made with the checse from Rimouski, \&ce., where they have no inspectors; the oheese from there being poor; some factories turn out fairly good cheese one day, and very poor the nest; altogether they are very uneven; which showe the need of $!$.truetion. The wast is also felt badly on the north shre below Montreal, and all the way along the line on the nerth shore between Hontreal and Quebec The marked improvement in the sections where the in upectors have been at work, is -ufficient proof that their work has bee a frutful; and those sean ns which have no instruction are so very much behind, $\mathrm{t}^{+}+$it behoves them to secure the instruction they 80 much need.
Having spoken so wuch in tavour of the inspectors. now, a word or two to the contrary. In some eases, I think the inspeetors have over-stopped their limit by interfering between the buyer and the selle:. I had one case myself of this, which eost me some four or five hundred cherses through the season. It occurred in the case of an inspector having an interest in three factories, the checse of which I had bought early in the season, and on going to see them at another time to buy them. I found them to be not first class cheese, and told the President of the factory so; but the iaspector having pronounced them to be first class my opinion went for nothing, and he would not sell the cheese to me, thinking that I was trying to buy them under falso description, and as a conse quence, I lost the cheese for the rect of the sesson. At the same time, my verdiet was perfectly right, and that of the inspector entireiy wrong; that is an evil whioh comes from an inspector mis-representiog the checse and pronouncing then first class, when he knows perfectly well that they are not so : should any such oase ocour to me again, I shall most
ecrtainly make a complaint against the inspeotor so offending, av no grod ean possibly come of such work. Oar inspectors are not paid to hide faulte, on the contrary, they are suppived to find them out, and not only that, but take off their ceats and $\mathrm{g}_{\mathrm{H}}$ to work 10 remedy them, and gise suoh instrue. toon to the maker, that will cmble him to get rid of the faults in $h$; shece. There is to much of ther geotiman about some of wir inspretorz, who drive up to a factory, get out of their bugey and inspect the cheese, pronoune them first elass, and drive on, many a tume pacing over taulte, where they should stand by and see them remedied.
I notice that in cases where the inspestor * $t$ off his cont. and went to work, that the result was very much ahead of the factories ${ }^{\text {asisited }}$ by our genteman inspectors.
Of course I do nut consider the judyment of the inspectors iofallible. I had the good fortune to be present at a meetins of three inspectors, and sume oheese makers. The tieneral Yaspector being present, alyo thr distriet inupectur, and an inspector from the Ottawa Experimental Farm, the lattur inspeoted the milk, and between them they made the cheese. I was preseat in tie morning and siw the mik, and I pronounced it very fine. I was back in the afternoon, and was asked to give my opinion on the curd, which I did, namely, that it was not tinest, having too much acid, they admitted the fault, though cach blamed the other for it, and of conrse no one would admit it; thin may have been a oase of too many couks spoiling the broth, and may not oecur erery day.
1 trust that my remarks may be ree wed in the sportt that they are given in, namely, that of furtheriog the dairy iuterests of the province of Quebec and I shall be pleaned if thry bear good fruit amongst the patrons, makers, and inspectors.

With all good wishes for the suceess of the dairymen in the province, as represented by the gentemen presint, I hare the honor to remain,

Yours sery truly.
John A. MeDonaho.

## First-Prize Cross-Bred Steer at Birmingham Show

We reengrave frow the Mark Lanc Express thi, purtrait of what unr contemporary calls " a very nace beast, a grand esample of early maturity "-" the capital gres roan crossbred, Lattle Wooder, with which Mr. Robirt Wright wou the championship of the Uakham Show, the reverve for chanpion stecr at Norwich, and which was first in its el. iss at Birmmes. ham." No further information as to the animal's breedng is given here ; but the Landon Live-Stock Jourfal says he was got by a "polled" bull whether red white, Aberdeen-Angus or Galloway the reader is left to guesil out of a Short-Horn cow, and weighed " 15 cwt .1 qr .7 lb ." at 2 years and 11 nooths. "He is almost faultcess at his rumps,"," the writer adds, " and pa،ticularly nice over loin and crops."

## DE OMINIBUS REBUS.

This is the last nunber of the fourteenth volume of the Illesiralthl Jumrual of Agru ulture. I have been associated with it from the very commencement, and I can hoacstly say that I have done my best to help to make it the means of preading a more general knowledge of what goot furmeng really is than previoully existed in the proviuce of Quebec. I yay "a more gencral knowledge"", because no one knows better than I that there are, both in the Townshipy and on the Island of Montreal, many men who work their farms as well as ang agroulturist in the Britich Isles. But there is, no doubt, a visible improvement, takn, the province as a whole
in the pracent state of our farming when compared with what it way in 1879, when the firut number of the Journal was published, and if I ound persuade myself that my offorts had helped on the greod work in any degree, I whond feel that I have not lived in vain.

Milrog'n arcumillutios.-I nee thet some advoentes for green-manuring still perent in recommending rye and buokwheat as fit subjecte for ploughing down This is by no recans the adrice of the groat Gerasan expermenters. They say, and not without advanoing satidfactory proof, thet no other plants than the /ripummosa', such as olover, pease, vetohes, dio. are of any ue for this purpove.

Agrecultural srhonk.-The Dairy-sohool at St-Hyacinthe is about opening its doors for the reception of pupls. I am grad to see that this cohom is not mixed up with any literary college, but is to stand alone on its own merits. Ductor Hos. kins still holde with the that a successful umon of the clascical and agricultural college the world has never seen and, unti! the millenaium arrives, never will see. I must repeat what Doctor Hokins said some few months ago: "The example is all against it ; the iofluence is all aganst it. The subtle atmosphere of the one will permeate and vitinte the other. It is impossible to reconcrle the two. With the feeling amons the instructors, and the pretensions of the classes in the literary department, the industrial students will inevitably be driven away."

Hangels.-Those who are intending to grow mangels in the spring wall do well to attend to the following points:

1. Sow new seed, if you can get it. Senator Guabremont, of Sorcl, would not take my advice on this s-'jject, but sowed stuff he bad had by him for two or three years, and the consequence was that, after waiting sis weeks, ho had to sow the piece with white-turnips.
2. If your orop falls from insect-ravages or any other cause, pray do cot waste your time by transplantiog. It never answers. even in a dripping summer, and if the plants do happen to take, the roots are always hard and stringy.
3. Sugar-beets are doubtless superior in qualitg to mangels; but an acre of mangels contains a much greater amount of nutriests than an aore ol sugar-beets and the mangela are much easier to harvest, therefore, grew them in preference.
4. When you hear from the States' agricu'tural stations, as I have heard. that manurıny land with fresh farmyard dung diminishes the yield of this orop, do not pay attention to the statement. If by this is meant that well managed fermentation improves dung for any root crop, that is quite a different thing.
5. If you do not roll down your land, whether on drills or on the flat, after ploughing down fresh or any other dung, the hollowness of the soil, when tho ranure becomes theroughly rotten, will leave the roots of the plants without a firm foothold, and, failing moisture, the leaves will of course wilt and the plant be enable to accumulate nourishment.
6. The oringe globe mangel is the best in quality of all the varieties of mangels: globe, long-red, long-yellow, ovoid, \&e., but, in most soils, the jield of the long-red is 80 mueh superior to the yield of the others that I prefer it. I fancied that the Sorel sand would just suit the orangerglobe; suit it better than any mangel or any swede; but I found, by experience, that the swede would wive at least ten tons an acre more than orange globe mangely, and at least six tons an acre more than the long-red, so I and my friend M. Soraphin Guèvremont agreed that no more orange-globes should he sown.
7. Plough in your mangel-leaves. They are not worth eait-
ing away; but if you have a flook of sheep, I do not any that they should not be turned into the fild after the roots have been haroested. In both eases, do "at leave the foliage in heaps, but souter it abroad.

Minl"mg-burley-Cinadian barley is still quoted in my lingl. a papers at from 184 , 20 a quarter, equal to 50 ots a buhel, while it is worth here, about 55 cents. As long as the Enolish maltuter persistently (and ma/e wolenlly aceording to some proplè refuses to acoept grain, however good in weoght, if it be not suitable to his purpese in colour and eondifion, so long will our barley harvested and dreased as it now is, oooupy an inferior poction on the great English mar. ket. I have a sample of the Alanitoba barley exhibited io, the C. P. R. at the September show at Mile-end It is as "white as a hound's tooth"; whereas, a maltster prefers "a coloury nample". And there was a largish proportion of peelfel erains among it; whereav, a maltater wants the auruspire-zhioh would become, aventually, the plumule, or green shont, but for the kiln-to come nearly up to the end of the grain oppo. site to the end from which it started. Lastly, there were at least $7 \%$ of broken grains in the sample, and broken grains, as I have been dinring into prople's cars for gears, grow mouldy on the floor, and, when turned into beer, oreate in it a queer sort of suo-fermentation that prevents it from ever becoming brilliant, and, in the long run, turns it hard or sour.

Newark-on-Trent. is one of the largest malting town in England. Not far from Burton, much of the finest barley grown in the Eastern-Counties, Hertfordshire, Essex, \&o., is sent thither for anvervion into malt for the Basses, the Allsops. \&o, Messrs. Gilatrap, Carp, \& Co., one of the principal firms at Newark, offer, in the Agrimultural Gazelte, prizes of the value of $\$ 250$ to the farmers whose barley, bought by them direct, is delivered in the best condition as regards dressing and freodom from broken and peelod corns.

The prizes are offered for barley bought from the farmers direct, beoause, when bought of dealers, there will probably be a mixture of barleys grown on different soils and cut at various states of ripences, which grain-I muat repeat myself, please-will not grow equally on the floo

The difference in price between divere samples of barley on the English market is something prodigious. Good grain, veighing about 52 lbs . the imperial bushel, can be bought for about 70 cents ; first rate malting barley, from the Enstern-uounties, or from ti aale, from Moravia, \&c, is worth $\$ 1.20$, and will soon fetch $: \$ 1.30$.

Permanent-pastures.-A correspondent of the French edition of the Journal, whose name and place of abode are not given, enquires: what grass-seeds are likely to answer for establishing a permanent pasture " on a heavy soil, very tilly, and subject to strong winds and severe frosta?" I do not envy the owner the possession of the land he mentions, and I am not, sanguine as I usually am, hopefnl of being of much use to him, as he seems to ave tried several times to lay down grass on this soil and to nave failed every time. Still, as I have been asked to solve the diffoulty, I can only say that if the following seeds do not answer, I do not think any other mixture will have a better effect :

Per arpent.
Part is perennial ryegrass. .... 1 peck ;

$$
\begin{aligned}
& \text { Urehard-grass................... } 2 \text { bushels; } \\
& \text { Cowgrass (perennial red-clover.. } 5 \text { pounds; } \\
& \text { White olover..................... } 2 \text { do }
\end{aligned}
$$

This misture ranay do. if the land is prourrly prepared for the secd. I should cither make a summer-fallow, as a preparation, or grow some hoed-crops on the diece; in cach case, the land must be heavily manured with farmyard dung, and,
if the expense be not gruderd, a dressing of Indian bonemeal might be added : say, 500 tbe to the arpent and harrowed 10 just before serd ime. In the following apring, the land having been ir rubbed, on the furrow of the previous autumn, and reduced by repeated harrowings and rolliges to a fine tilth. the seed may be cown preferably kuthout " arainrap, and covered ebout $f$ of an inol deep by chain- bush., or grass-seed-harrows, followed by a light rollor.

I would not allow a seythe or mower to touch the grass the tirst year, but praze it lred with young catte. 1 dressing of dung should be give $n$ in the autumn, ar $d$, the moment the land is dry enough the nest spring a stroke of the chain- or bushharrow, followed by a likavy roller, would do untold good. No sheep should be admitted, and the grass should be fed down level by the stock: it'ome patches bave a tendency to run to seed, they should be kept mown, as grass, however percunial by nature, has always a tendency to dee if it is allowed to mature its seed.

I wonder if this correspondent could manage to get a few pornds of the wild vetch (fols saluater) so conspicuous, with its blue flowers, in most of the meadows on the slopes of the hills below Quebec. It evidently lores heavy land, and I should judge it to be persistent in is habits, so I fancy half a peek of it to the arpent would not make a useless addition to the above mixture.

In my country, we should set about the treatmert of a piece of land like the one in question in a very diffirent way. We should burn 40 or 50 large loads of cluds to the aore, and sow rape, with a fiw bushels of bove-dust, the rape, fed off by sheep eatıng oake and arain, would be followed by turnips, with more bones, and after theee two crops consumed where they grew, barley and sceds would follow. But there is no use in talking of such treatment here, though Dr. Hoskins, in lis paper, the Vermuml Whahmult, is doing is best to encou rage the system in his State, and Mr. Benoctt, a large landed proprictur in New England, as my readers saw in the October number of the Journal, is about throwing six farms into one for the purpose of stocking then with Hamphire down sheep to be treated with rape and other green-ineat after our Haglish fashon.

Canadu-pease.-Dr. Hoskins cbserves, in the Lermont Hatchman: "The little boomlet that the Canada pea uaderwent seems not to amount to much. No doubt pea-meal is a tine cow-feed, particularly for butter-cows, but Canada peas need a Canadian climate to grow them profitably in, and the Middle-States are not 10 it? $?$

If the Canada pea, which is a delioate white pea, does not suit the Middle States, I should advise the farmers of that coun y to try one of the varieties of English peas, such as the Maple, the Partridge, or the common gray pea we use for hogrs during the lart three week, of fattening. These sorts are ail hardy, and if sown in February, in Eogland, ripen by the end of July. They yield, to the best of my judgment, some $25{ }^{\circ} \%$ wore than the white pea, ceteris paribus; weigh quite as much per wushel, and, though they will not melt into soup, like the best specimens of the Canada pea, they are by no means inferior to it in digestible nutrients.

Do you know that I attribute a great deal of the almost universal healthiness of the French Canadian farmer and his family to the constant use of peast-soup? If any of my readers suffer under that evil-temper-productive complaint of constipation. let them submit themselves to a regimen of pease-soup, made with whole, not with split. pease, and he will soon find his trouble alleviated. I an certain that, just as unbolted ground oats cause diarrhoea in hand fed calves when mixed with their milk, so the skius of the pease, whiot should never
be skimmed off, by exoiting prenstallur notion, act as a preventive of conatipation.

Wen here, in the proviner of Quebec. It is not easy to get really tirst-rate soup-pense. The Sorel pea will not melt, but at Berthor, Jnst over the St Lowrence, they grow oapital welting pease just as in lingland, where the b rley of parts of Kient will not malt, and the lisace barlicy, rrown just over the Thomis, makes on the same geologion formation the Lomemerlay, the finest malt in the conntry.

I'wo pidet of pease, so iked for twelve hours; ; little green mint; two large onions, fired ; a atick of celery out up fine; $\frac{1}{3}$ to of fit salt-pork; and three quarts of water; palloped for thre hours, with more boiling water added as the soup thick. ens, will, if earefielly watched to prevent burning, please most pilites. If celery is scarec, the nowder sold as "celery-salt " will do nearly as well. Ni: objection to the addition of carrots, parsely. dic., but the soup must nol be stralt,ed bul skimmed. No salt, as that in the pork will be enougn, but pepper may be added "to taste"; no: that horrid white soented stuff, but good blach pepper. A few fricd duce of bread, nicely browned, with a very little sprinkling of dried mint, both added in the plate, add much to the flavour of the soup. Soft water, please, hard won't do at all, any more than it will do for tea or coffee, and the addition of soda to hard water, which some injudicious people praotise, spoils everything.

Pleuro-pneumonia in lingland.-A!l my readers are by this time aware that, owing to the detcetion of pleuro pocumonia in certain cattle imported into England from (\%anada, the entrance of live-stock from Canada into England has been forbidden by the Board of Agriculture of the Mother-country . in technical phraseology, Canada is "scheduled".

A hard case, no doubt, is this, but if all those who are crying out so lustily about it knew how very hard was the case of those farmers in Britain who in past times suffered from the attacks of contagious diseases on their catele, they would, I thiok, lover their tone a little. As for givirg ootice beforehand of the intention of the Board to close the ports, ${ }^{\top}$ do nut see how more than the 20 days warning could have been expected. There was the disease; it had to be guarded against; aud, as shiploads of cattle were on their way from the supposed infected country, I presume to say that the suthorities would have juvtly been blamed had they allowed more time to clapse before issuing the orders in question.

I speak as one who suffered severe losses from onntagious diseases amoog my cattle in 1849, and again in 1852. In the former year, a cow, bought in Smithfield market, introduced pleuro-pncumonia into my herd. I lest, to the best of my recollection, 9 cows and seven heifers, and about 95 pigs that were nearly fat : about 82000 worth on a farm of 180 acres, equal to about $\$ 11$ an acre, which was just two years' rent of the farm.

In 1852, I bnught at Peterborough fair, 37 three year old bullocks for fatteoing. They were put icto a rallroad truck that must have been contaminated by cattle with the "foot-and-mouth " disease, for two days after their arrisal on my farm, they were all down with the above foul disorder, and, though none of them died, they lost an average of $\$ 10$ a head to say nothing of the cost of the veterinary surgeon's attendance.

My friend Mr. Carr, of Stackhouse, W. Riding, of Yorkshire, a breeder of Booth shorthoras, was utterly ruined by pleuro getting among his ard; his losses in two years amounting to over 875,000!

Another trin nd, Mr. James Webb, of Calcot, Berkahire, bought, as the commoncement of a herd, eight shorthorn cows and a bull from Mr. Leniy, a great Kent breeder, pleuro attacked them almost inmednately after their arrival at Cal-
ont, and all but the bull died : Inss about 87,000 ! Portunately, these beasts were from the first kept awny from the herd of ordiniry miloh enws on Mr. Webb's farm, or else they would probably have followed in the same road.

The e instances are only trivial, but I note. .m as having happened within my own cirole. The losses suffered hy Hinglish farmers in general from contagious diseases during the la.t fifty years amount to many millions of pounds sterling : an any reasonable person, th n, wonder that the British authorities should act peremptorily when even the most dis tant probabilty axists of a renewal of these froghtful calamities?

Canada's sheep trade with Brititin is said to be a falure this season. Shippers have sustained heavy losses.

Multon.-The Vermont Watchmult has a paragraph in its last issue, ()ctober 26 th , on the fact that "the mirkit for choice mutton is widening ycarly." "The writer", it continups, " :nows many people who a few yrars agn would not eat
their mutton, and more partioularly, if they will persistently pay tho same price for a pound of meat from a wornout ten year old long-wool ewe, that they pay for a fresh two year-old whort mool wether, all I can say is that I do not pity them if they never fod out what good mution really is

I sec that what is soientifically oalled a "Mippophagous", or horse-eating society, met the other 'ay in the States, to dine on a variety of dishea, each made entirely from some part of a horic. The same thing occurred in l, ondon some years ago, by the bye, at which the fill" from Lord Ossulston's $2^{r}$ year old cabhorse (not a hack oab hor-c, by any means but a splendid powerful beast, gray in coous and worth. in his youth, anywhere between 250 and 300 guineas), were said by the brst judges to be the most tender, delicious meat they had ever tarted.

Well, why does not some enterprisiog butcher, like the Messrs, Brown of Ste Gatherins Strect, advertice a dinner composed of divhes made from the various parts of $s 1 y$, two


FIRST.PRIZE CROSS.BRE AT BIRMINGHAM SIOW.
mutton at all. but now prefer it to any other meat. 'They had never $t$ sted first-class mutton, and were sickened by the taste of the inferior article"

Well, I do not wonder at people being disgusted at the taste of' "the inferior article". Only last month, my buteher, Mr Winch of St. Catherine Street, sent me the loveliest sad dle of lamb. It was dressed to perfection, with all the gravy in it, and juat cooked enough. It cut a good deep thickness, and-it was uneatable. An carly male lamb, uncastrated, that had, I dare say served half a dozen ewes ! Not the tradesman's fault at all, but the farmer who neglects to castrate small lambs dropped early by the 1st September, and lets them san loose arnong his cwes, deserves corporal chastisement.

We often hear of mutton that has a " woolly taste ". This arises, in most sases, from not stripping the pelt off the moment the sheep is dead; for sometines a butcher will stick a dozen or so and leave them half an hour before stripping: I have seen it happen on a Fridsy afternoon at Sorel.

Neglect to thoroughly wash out the interior of the sheep after eraptyin it of the paunch, \&o, is often the cause of bad flavoured roeat. If people will not look into these defects in
year old Shropshire wethers? The tickets might be placed among " the 400 ", and the Manogers of the principal hotels might be invitrd to sit as judges. Joking apart, some means ought to ie taken to remedy the lamentable ignorance of the flavour of good mutton that exists among our people. On the London market, the best Downs are always worth 3 cente a pound more than the best Scoteh bullocks. Here are the last quotations :

October 10th, 189?.
s. d.

90 to 95 stone $=^{-9} 0$ lbs. to 760 lbs . Scolch.. 4 . 10 : $\mathbf{5 1 . 1 5}$
$7!$ to $8!\quad "=60 \mathrm{lbs}$ to $6 \varepsilon$ lbs Downs.. $510-\$ 140$ And I must add $8 \frac{1}{2} \quad$ c. .. Canadian.. 4 :- $\$ 1.00$

Is it not sad to see that the value of Canadian sheep in the first market in the world is less than the value of an English sheep of the same weight by nearly $\$ 4.90$ ?

Create a taste for good mutton bere, and it will not be long bofore all the rubbish we sead to Engla.-. will erase :n exist, as it will no longer pay any one to breed or seed it.

Sweel or sour melk for pigs, \&c.-I see that Professor Cooke, of the Vermont station, has shown slightly better re-
sults from feeding with ;our than with sweet milk, but the animals on which he tried the experiment are not mentioned. I should oot like to give sour milk to calves, but I dare say pigs would thrive on it. At all events, the celebrated Arthur Young, the "Plain Suffolk Farmer", advised the souring of all pig.food before administering it to the animals, and, to secure that end, bui't a number of tanks round his pig-pens sufficient to ensure that no food was ladled out to the pigs till it had fermented for at least three weeks. Practically, in all homefarms attached to large country houses in England, the wash of the house is run from the scullery into a large puochesn, on wheels, which is removed only when full, by which time all the contents-vegetailes, crusts of bread, bits of meat, d.c.-are sour enough, and this, mized with pollard and a little barley-meal is given to the pigs as long as it lasts. I speak from experience when I say that the pigs, young and old, do well upon it, though I do not think Arthur Young's idea of the tanks holding a three peceks supply was ever lary: aoted upon.

Milling trials at the London Dairy-show.-A curious thing occurred at this exhibition: An Aberdeen-Angus cow, (1) which breed is not supposed to be rood milkers, gaiaed 140.8 points, the best Jersey having only 933 points ! As usual, the shorthorns were at the bead of the show, barring the accidental polled-Angus, but the Quernsegs ran the shorthoras very close. The best Jersey was 27 points behind the worst prize winving fhorthorn. The seale of points is, to my mind. very well oalculated to show the real merit of the cows. One point is given for cevery ten days since calving, deducting the first 20, and makiag 18 the maximum; 1 point for each pound of milk yielded per day; 20 points for each puund of fat; 4 points for each pound of solids other than fat in the milk; with 10 points ceducted in cases where the butter-fat amounts to less than 3 per cent.

The wonderful yield of the Polled-Angus is the highest that has ever been known at this show since it was started. The following is a list of the prize-winners: EnOBTHORNS Points.
1, and Thorlej's, Mr. Errington's Lily................... 1323
$2, \mathrm{Mr}$. Horoby's Pride of Finohley. ....................... 129.8
$r$, and Errington's, Messrs. Ramball \& Son's Lily..... 1200
Jersexs.
1, Mr. Baxendale's Chesnut 2nd........................... 933
2, and 'Thorley's, Mr. Brutton's Vairy EIf............. 89.0
r, Miss Standisb's Beauty ...... ........... ............... 831
GUERNSEY8.

1. Mr. Christie.Miller's Mountain Maid 2nd. .......... 125.8
r. Express Dairy Company's Ladybird 2nd.. ............ 75.2

AfRbeires.
1, Mr. Holm's Suowdrop.......................................... 99.8
$r$, Mr. Holm's Rosic.............................................. 78.9
KERRIE
1, Express Dairy Company's Killarney................... 88.2
2, Lord Ashburton's Mavouracen.. ........................... 82.5
r, Mr. Roumicu’s Topsy.......... ......................... 50.1
GIXRD CLASS.
1, and Thoricy's, Mr. Spenoer's Aberdeen-Angus, Black Bess.
140.8

2, Mr. Speocer's Dorothy. . ...................................................................................
$r$. Mr. Speucer's Modesty 2 nd..................................... 1228
(1) This cow turns out to be a shorthorn crois' ':
A. R J. F.

At the same mecting, a large display of eream-separators was mace by Messrs Lister, of Dursley Glo'stershire, whose agent in Canada is our energetic friend, Monsienr J. de L. Taohe, secretary of the Dairymen's Association of the I'rovince of Qucdec

In all, they had sume forty two separators on their stand. The hand machines were kept at work nearly the whole day loug, mostly worked by a young lady, to whom it appeared quite casy, requiring no great effurt to work them. Searal improvements in these machines have been made during the past year. Ay in former years, Messrs. R. A. Lister \& Co. were again suppiying the Dairy P'armers' Association with their cream for the butter-makics competitions, so that their power machines were kept buily runaing during the whole of the day. When une examines the mechanism of the "Alexandra" separator, the extreme simplicity of its construction, and especially the case with which the stecl bowl can be cleaned, one is not surprised at its erruat popularity; a whilst in some separators the steel bowls are made up ut a large number of loose parts, all of which require cleaning, in the "Alezandra" there is only one piece, which can be as easily cleaned as a teapot.

English and Canadian cheese.-I must be forgiven if I was a litile proud at seeing, in the quotation of the cheescmarent in England, sophetime during the past month of October, that Canadian cheese sold for 48 s a cwt. ( 112 lbs ) and single Glo'sier for 56 s . From what I hear, our Vale of Berkeley mea are determined not to be beaten, and, if they really give their minds to it, the splendid grass land that surrounds them ought to uake them superior to all comers. But, alas! they are plunged into such a deep rut of routine, that I far it will take them years to get out of it.

Exportation of horses.-Monsieur Bouthillier, in his article on the horses at the September cahibition at Mile end, lashes out vehemently against the paucity of thoroughbred stallions, and asks, implicitly, how can we expect to have firstclass horses to export to England for the saddle, if our farmers and farmers' sons prefer lolling lazily in a 4 wheeled buggy, to cantering pleasantiy along on a well-bred young one with its shoulder in the right place? We shall never have good riding-horses to export until this is altered.

Monsiear Bouthilier kicks, too, at the American trottinghorses; wherein he agrees with me and with Dr. Couture, who thus expresses himself in the January number of the Journal-1892:
"War to the knife against trotirrs. Thny are cither fit for the plough, the cart, the carriagr, nor the sudder; "and it is for riding purposes that te should breed, if we have any intention of makiag our * in the English market

Low prices for stock in England.-Now is the time to buy breeding-stock in England. Prices have not been so low for many years. They were low enough in Ootober 1891. but, this ycar, Hampshire-downs cwes were sold at the autumo fairs for $2 \frac{1}{2}$ dollars a head less than last year. Oh, Mr. Greenwhelds, Fhen gou have time to think of anything else but your arduous labours in your profession, do cast you yes orer the hords of Dairy-shorthorns and the flocks of Hampshiredowns, and gratify your patriotio instincts by impo:ting a few of each as a specimen of what I have been trying to win favour for during the last fourteen years.

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