

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/  
Couverture de couleur

Coloured pages/  
Pages de couleur

Covers damaged/  
Couverture endommagée

Pages damaged/  
Pages endommagées

Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées

Cover title missing/  
Le titre de couverture manque

Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées

Coloured maps/  
Cartes géographiques en couleur

Pages detached/  
Pages détachées

Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/  
Transparence

Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur

Quality of print varies/  
Qualité inégale de l'impression

Bound with other material/  
Relié avec d'autres documents

Continuous pagination/  
Pagination continue

Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/  
Comprend un (des) index

Title on header taken from: /  
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/  
Page de titre de la livraison

Caption of issue/  
Titre de départ de la livraison

Masthead/  
Généralique (périodiques) de la livraison

Additional comments: /  
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X



Published under direction of the Board of Agriculture of Nova Scotia.

*Omnium rerum, ex quibus aliquid acquiritur, nihil est agriculturâ melius, nihil uberius, nihil homine libero dignius.—Cicero : de Officiis, lib. I, cap. 42.*

VOL. IV.

HALIFAX, N. S., JANUARY, 1884.

No. 41.

CENTRAL BOARD OF AGRICULTURE

HALIFAX, 29th Jan., 1884.

A meeting of the Executive Committee of the Central Board of Agriculture was held this day. Present: David Matheson, President; Israel Longworth, Vice-President; Colonel Starratt, Paradise; C. N. Sprott, Musquodoboit; Prof. Lawson, Secretary. The Secretary laid on the table the annual reports of the agricultural societies throughout the province for the year 1883, and stated that considerable progress had been made in the printing of them, so that the report of the Board to the Legislature may be ready for presentation at an earlier period of the session than in former years. He also presented the attested lists of membership of the several societies, qualifying them for participation in the Legislative grants. The examination of the reports and returns of societies will probably occupy the Board for several days.

30th Jan.

The Executive Committee met at 10 o'clock, a. m. Present: D. Matheson, President; Israel Longworth, Vice President; Col. W. E. Starratt, Paradise; C. N. Sprott, Musquodoboit. A note was read from Attorney-General White apologizing for his absence.

The President submitted correspondence in reference to the Jersey bull "Litchfield 15th, and the committee authorized the bull to be sent to River John for

the winter and spring, under suitable arrangements.

Colonel Starratt laid on the table a petition to his Honor the Lieut.-Governor, now being signed by the agriculturists of District No. 2, comprising the counties of Queens, Kings, and Annapolis. It sets forth the neglect of Sheep Husbandry, one of the most important industries of the province; that the development of woollen factories ensures our farmers a home market for wool at remunerative prices; that the district in question is peculiarly adapted for the production of wool and mutton; that the bonus given in 1882 for sheep importation was inadequate; and lastly, the petitioners pray the Government (through the Central Board), to make a large importation of Shropshires and Leicesters during the coming season; also an importation of pigs.

The examination of the reports, attested returns, and accounts of the agricultural societies organized under the Act was continued.

The Committee adjourned to Thursday morning at 10.30 o'clock.

31st Jan.

The Committee met to-day, and concluded examination of reports and returns of societies.

The Committee having examined the votes of the officers of societies nominating to the Central Board,—on motion of Mr. Sprott, seconded by Mr. Longworth, the Secretary was directed to

send the returns to the Provincial Secretary, with statement of same, as follows:

	Nominated by officers of
Dist. 1.—Gen. Laurie.....	4 Societies.
David Archibald..	2 "
Chas. N. Sprott..	1 "
C. E. Goddard....	1 "
Dist. 2.—Col. W. E. Starratt..	11 "
Jonathan Rand..	6 "
No return .....	1 "
Dist. 3.—C. E. Brown....	6 "
No returns .....	2 "
Dist. 4. J. Longworth....	16 "
Allen Haley, M.P.P.	1 "
J. Hiram Black..	1 "
No returns .....	2 "
Dist. 5.—David Matheson..	8 "
Jas. Kitchin.....	2 "
A. C. Bell, M.P.P.	1 "
C. B. Whidden, M.P.P.	1 "
No return .....	1 "
Dist. 6.—John McKeen....	16 "
Jacob S. Hart....	2 "

Applications for recognition from several new societies were presented.

The recommendations of the societies in the several Statutory Districts relative to the locating the District Exhibitions of 1884 were read and referred to the General Meeting of the Board to be held early in the month of March, during the sitting of the Legislature.

Moved by Col. Starratt, seconded by Mr. Sprott, that the President and Vice-President be a committee to audit the Treasurer's accounts and report same to the Legislature.

The Committee then adjourned.

St. John, N. B., 26th Dec., 1883.

*My Dear Sir,*—In response to your letter of this morning, I may say that the Frost Grape, *V. cordifolia*, is well known on the St. John R., and has, I fancy, grown on every gravelly point along the Long Reach, and is also known on the upper part of the Kennebecasis River—say 20 miles from St. John. I do not know of its growing nearer to the mouth of the St. John River than those two places, and I do not think it grows on the shores of the Bay of Fundy, though I think it likely to be a native of the Saint Croix River. Prof. Fowler reports it from intervals of the Saint John River, (*var. riparria*.) Prof. Bailey, in his Woods and Minerals, mentions the Fox Grape, *V. Labrusca*, as a native of New Brunswick.

Yours truly,  
G. F. M.

We learn from Colonel W. E. Starratt, member of Central Board for District No. 2, that the following petition to His Honor Lieut.-Governor Ritchie, is now in course of signature in the counties of Queens, Kings and Annapolis:—

*To His Honor M. H. Richey, Lieutenant-Governor of Nova Scotia:*

The Petition of the Agriculturists of No. 2 District, comprising the Counties of Queens, Kings, and Annapolis, humbly sheweth,—

First.—That one of the most important Agricultural industries of Nova Scotia, Sheep Husbandry, has been much neglected for the last few years.

Secondly.—That, in view of the present increased development of our Manufactories of Woollen Goods, and the want of raw material for the production of the same, we believe that the manufacture of Woollen Goods is now so far advanced in Nova Scotia that it will go forward quite as rapidly as the production of Wools will allow, and give our farmers a home market with a good prospect of remunerative prices, which means increased prosperity and wealth.

Thirdly.—That it is a recognized fact that No. 2 District is peculiarly adapted, not only from its climatic conditions, but also from its abundant and rich natural pasturage, for the successful raising of improved sheep for the production of Wool and Mutton.

Fourthly.—That the bonus of \$100 per County, recommended by the Agricultural Committee of the House of Assembly in 1882, and approved by the Government, has not given sufficient inducement to the Agricultural Societies in this District to make importations of Sheep as anticipated.

Fifthly.—We, the members of the Agricultural Societies of No. 2 District,

for the reasons above set forth, would most respectfully request that the Government (through the Central Board of Agriculture) make a large importation of Sheep of the Shropshire and Leicester breeds during the coming season; and we would further request that an importation of Pigs be made at the same time.

And we, your Petitioners, will ever pray, etc.

We are informed that other districts are not unlikely to send in similar petitions. It is a healthy sign to see our Agriculturists coming forward in this way to make their wants known to the Ruling Powers.

The 21st annual session of the Fruit Growers' Association of Nova Scotia, was held at Wolfville, on 15th January. We were unable to be present, but find a full report in the *Herald*, which enables us to give an account of the proceedings. Avar Longley, ex. M. P., presided. In opening proceedings he expressed gratification at the representative character of the large gathering, which excelled any previous meeting during the 20 years history of the Association. The apple crop was the smallest known during a generation.

At the request of Sir Charles Tupper a collection of fruit was sent to England and exhibited at Birmingham, and elsewhere, and was a great advertisement for Nova Scotia fruit. The collection was an impromptu one, made after the fruit was gathered, and, therefore, at a disadvantage. As the crops of 1883 had been small and unsatisfactory, he hoped that of 1884 would be large and of superior quality. The trees ought to do something extra, as they had such a rest in 1883 as they had not had for twenty years previously. He was exceedingly pleased at the interest in the association excited among the orchardists, and looked forward to the future with high hopes and trusted that the day was not far distant when the dreams of the founders of the association would be realized, and the apples of Nova Scotia found commanding the highest prices in the best foreign markets of the world. The crop in England in '83 was an extraordinarily large one, while ours was extraordinarily small. In the nature of things the English crop of '84 might be expected to be small, while ours ought to be extraordinarily larger. This was a matter for encouragement to Nova Scotia growers. Fruit growing was as profitable as it was most enjoyable. He hoped that we were now about to enter upon a distinguished career as a fruit-growing country—a country that occupied a position, as regards climate

and soil adapted to fruit-growing, unsurpassed by no other in the world.

C. R. H. Starr, the secretary of the association presented his annual report. It is gratifying to note the large increase in the membership during the past year, and much greater interest in promoting the objects of the association than has been evinced during the previous few years. This may be attributed mainly to the publicity given to the meetings and work of the association. Rev. Messrs. Hart and Asford rendered valuable assistance in compiling the reports of the association. The publication of the portrait of the late Dr. C. Humilton seemed a well earned tribute to his memory, after seventeen years service as president of the association. The reports have been widely circulated, both at home and abroad. The handling of these reports, together with mailing 500 prize lists, and replying to 250 letters, involved a large amount of office work.

Three special meetings of the association and one meeting of the council were held during the year at Halifax, Bridgetown and Windsor. The winter exhibition in Halifax last March was a success as a show but a failure financially. The exhibit of the association at St. John was a gratifying success and was spoken of in the highest terms by the press. The association is indebted to R. W. Starr, John C. Byrne, J. & T. Longley, A. S. & R. E. Harris, T. E. Smith, G. C. Johnson, C. P. Elderkin, Dr. McLatchy, Prof. Higgins, George N. Rand, Isaac Shaw, James N. Borden, and others, besides friends in Annapolis county. The association was awarded a silver medal for the collection. A collection of some thirty sorts of our leading apples were sent to London at the request of Sir Charles Tupper, Canada's high commissioner, which was exhibited at Birmingham during the great cattle show. The association was not represented at the meeting of the American pomological society in Philadelphia. This is to be regretted. Alluding to the naming of fruits, President Wilder, the venerable Father of the American society in his address, said: "Let us have no more generals, colonels, captains, presidents, or governors; no more mammoths, giants, or Tom Thumbs; no non-suches, seek no furrthers, sheeppnooses or ironclads. Let us have no more long, unreasonable, inelegant and high flowing, bombastic names to our fruits. And, if possible, let us dispense with the now confused terms of beunes, dobenus, jippin, sudden favorite, and other like useless and improper titles. The cases are very few where a single word will not form a better name than two or more. Thus shall we establish a standard worthy of

imitation by other nations. And I suggest that we ask the co-operation of all pomological and horticultural societies in carrying out this important reform."

I am pleased to be able to announce, continued Secretary Starr, in his report, that arrangements are being made for a great international fruit show in connection with the world's exposition to be held in New Orleans next winter, when all fruits in season will be placed side by side in competition for valuable prizes. The propriety of making an extensive exhibit of Nova Scotia fruit on such an occasion will doubtless be conceded by every one. And it must necessarily devolve upon this association in conjunction with the government to put forth extraordinary efforts in order that Nova Scotia may be represented in proportion to the importance of her fruit industry. It is to be regretted that the efforts put forth to obtain a frost proof warehouse in connection with the railway at Halifax have not proved immediately successful, but there is every reason to believe that before another season this very necessary addition to the Halifax terminus will be completed. But I would urge the association not to lose sight of this very important matter, and to continue their efforts in the direction until consummated.

A. S. Johnson, formerly secretary of the association, was particularly gratified at the success of the exhibit sent to England. When there he was convinced that Nova Scotia could make a much better fruit show than either the United States or France. That had now been proved. He thought that exhibits should be sent over to England and Scotland every year.

Secretary Starr referred to a private collection sent to England by himself, and quoted encomiums from English and American papers. The London *Post* spoke of it as the finest collection of fruits ever exhibited. The London *Times* spoke of it, in equally high terms. That exhibition had resulted beneficially. The exhibit had caused a demand for the apples. When it was found there were none in the market, an order was promptly sent from England for 200 barrels. The foundation had been laid for an extensive and profitable trade.

A. H. Johnson contended that the exhibit of fruit sent over by Secretary Starr had done Nova Scotia more good than all the talk indulged in by the association in twenty years. The fruit-growers could get and talk but the people of London would still remain in ignorance of the magnificent quality of the fruit. But the sight of the exhibit would be a practical conviction of what Nova Scotia could do. Mr. Starr de-

served the best thanks of the association for his enterprise.

Major General Laurie said that his experience during the past fifteen years was that fruit came to maturity in England much quicker than in Nova Scotia, and that apples that would keep here until April or May, if sent home in the fall would be marketable there in February.

On motion of A. H. Johnson an unanimous vote of thanks was tendered to Secretary Starr for the service rendered to Nova Scotia fruit growing, in sending his private exhibit to England, and for the keen interest he takes in the prosperity of the association.

The Treasurer's report showed that the balance on hand was \$617.

On motion of Rev. Mr. Axford, the association resolved to continue its agitation for a frost-proof warehouse in connection with the railway at Halifax for storing fruit there, and not to cease its efforts until the warehouse is erected. Such a building was as necessary for potatoes as for apples. Mr. Starr read the copy of a letter sent to Sir Charles Tupper in this connection. Major General Laurie suggested that Mr. Starr ought to be sent to Ottawa to urge the importance of the matter on the minister personally. This was supported by Peter Innes. Avar Longley had no doubt but that the \$12,000 requisite would be put in the estimates.

On motion of R. W. Starr and M. G. DeWolf it was unanimously "resolved that this association has learned with pleasure of the preparations being made in New Orleans to hold an international fruit show in December 1884; and we urge the government to take active measures to secure an exhibit of Nova Scotia fruit; and we pledge ourselves to render the necessary assistance in procuring such an exhibit, and to take steps to have the association suitably represented,

We are indebted to M. Ronné, Belgian Consul at Halifax, for the following Circular which we commend to the attention of producers and commercial men:—

Sir,—The Minister of Foreign Affairs of Belgium is organizing a "Commercial Museum" at Brussels, where will be found as complete a collection as possible of all the products which form the commercial interchange of the world; this Permanent Museum is being established for the purpose of furnishing manufacturers and merchants in Belgium full intelligence of the commercial progress in foreign countries, and to facilitate their opening business with the consumers and producers of those countries.

The Government of the King has instructed me to make up a collection of foreign products consumed in Canada, and also of articles produced or manufactured in Canada, which could find a market across the Atlantic, or at least to show the standing of all the industries in the Dominion.

I therefore beg to ask you to kindly cooperate with me in my endeavours; it is needless for me to explain all the advantages which your manufacturing or business enterprise could derive from that permanent and costless exposition of samples of your goods in one of the capital cities of central Europe.

If you wish your goods to be exposed at the "Commercial Museum" of Belgium, please to send me soon as possible your samples with particulars as per annexed schedule.

*The Consul General of Belgium in Canada.*

*Sta. Foye Toll Gate, Quebec.*

#### GENERAL INFORMATION TO ACCOMPANY THE SAMPLES.

State as a general rule the place of production, the wholesale selling price in Canada, when furnished, and with explanations perfectly specified, viz.:

For articles for exportation, F. O. B. Montreal, packing included, or delivered at manufacture or place of production.

For imported articles, the wholesale prices stating:

- (a). The usual terms of sale.
- (b). The cost of packing if any.
- (c). What discount if any.

#### GENERAL INFORMATION TO ACCOMPANY THE SAMPLES.

I.—*Agricultural Products.*—Year of the crop, price at date, average production per acre, acreage of land under culture, localities most favorable to the raising of the crop, most favorable market. If any official classification can be furnished, it will be important to send a specimen of each kind, with the marks under which it is known in the trade.

II.—*Minerals.*—State the importance of the seam, the distance from places of shipment, and, if possible, the composition of the mineral. The sample should represent the average composition of the seam. If the price is stated delivered at the mine, state also the approximate charges to the place of shipment.

III.—*Textile Fabrics.*—Samples should be taken on the width of the goods, and be at least twenty inches long. It will be necessary to state the quantity of yards of the pieces.

IV.—*Woollen Fabrics.*—Samples can be reduced to 9 x 6 inches. In this

case the width of the goods must be stated with the quantity of yards.

NOTE.—Classifications are also made for catalogues containing designs, engravings, photographs and current prices. The name of the firm exposing the goods will be published in the catalogue of the "Commercial Museum" and attached to each sample if required.

### HON. DONALD FERGUSON ON AGRICULTURAL EDUCATION.

The Honorable Donald Ferguson recently delivered an excellent Lecture in Charlottetown, P. E. I., on Agricultural Education. We cannot find room in the present number to quote largely from it, but give our farmer a keynote in the following brief extract, which will be followed up next month:

"It must be admitted on the very threshold of the discussion of the question that the greatest difficulties in the way of agricultural improvement are placed here by farmers themselves. As a class their prejudices are very strong. To insinuate in the presence of an average farmer that his land was not just as well managed as it was possible for any man in his circumstances to manage it, or that his wife did not make the very best butter in the world, would be regarded as a downright insult. Because his father may have practised certain methods of cultivation, is to his mind a sufficient reason why these methods should be sacredly followed by him. When he hears of the great sums paid for well-bred animals, or the heavy expense incurred in applying artificial manures to the land, he shrugs his shoulders and concludes that the men who do these things must have more money than brains. When he hears of schools or colleges to train farmers, he remarks that if people must play at farming they may as well do it when they are young as at any other time. In view of the hostility to innovation which prevails among farmers, the real question to consider is not so much what kind of an education farmers need, but what training can they be induced to receive in order to fit them for their business."

At the American fat stock show all the prizes for early maturity went to grade Shorthorns; and the percentage of carcass yielded by the four leading prize-takers proved to be Wabash (pure Hereford, imported), 69.30; Roan Boy (Hereford and Shorthorn cross), 69.05; Starlight (a pure shorthorn, and the 1st prize winner for carcass), 67.93; and Waterside Jock, (imported Polled Angus) 67.39.

### CONSTITUTION OF EASTERN ANNAPOLIS AGRICULTURAL SOCIETY.

*Rule 1st.*—That this Society shall be called the "Eastern Annapolis Agricultural Society," and shall consist of farmers and others interested in Agriculture.

*Rule 2nd.*—That this Society shall be managed by a President, Vice-President, Secretary, Treasurer, and Council of five, to be chosen annually, and that the officers of Council be reeligible.

*Rule 3rd.*—That the Society shall hold an annual meeting on the first Tuesday of December in each year; such meeting and business be conducted and done in accordance with the Agricultural law and instructions of Central Board.

*Rule 4th.*—That the Society shall hold such other meetings from time to time as may be deemed important or necessary for the good of said Society and the interests of Agricultural pursuits in general.

#### OFFICERS' DUTIES

1. The President shall preside at all meetings of the Society, maintain proper order, regulate discussions, state and put questions when called, decide votes when a tie occurs, endorse orders drawn on bank, call special meetings on a requisition of five members, and perform such other duties as belong to his office. And in his absence the Vice to take his place.

2. That the Secretary shall attend all regular meetings of the Society, keep a correct record of all proceedings, collect all monies due, and perform all other duties lawfully belonging to his office. And as Treasurer, shall keep (safely) all monies and pay the same upon orders endorsed by the President, and make financial returns to the Society.

3. The Council shall have charge of all property, stock, &c., belonging to the Society, ever keeping in mind the welfare and best interests of the Society and the members thereof.

#### PRIVILEGES.

1. Any person may become a member of this Society by paying \$1 annually.

2. No member shall be entitled to the privileges of the Society, neither shall he be allowed to vote, until all dues are paid.

3. No discussions foreign to the Society's interest shall be allowed in its meeting.

4. Seven members shall form a quorum.

5. At any annual meeting the rules or bye-laws may be changed, subject to the approval of Central Board.

#### BYE-LAWS.

Order of business shall be as follows:—

1. Minutes of last meeting.
2. Collection of dues.
3. Report of Secretary and Treasurer.
4. Report of Council.
5. Report of Finance Committee.
6. Report of Special Committee.
7. Discussions.
8. Miscellaneous.
9. At the annual meeting, election of officers.

No member shall speak more than twice on any subject, nor more than ten minutes, except by request or permission.

All resolutions affecting the constitution or bye-laws must be submitted in writing and passed by a two-third vote of those present.

Passed June 13th, 1884.

A. B. PARKER.

Approved by Central Board of Agriculture, 5th July, 1883.

### THE JERSEYS.

THE ISLAND WHERE GROWS THE BEST COW IN THE WORLD.

Jersey is but a small Island; if it were square it would be just six and three-fourths miles each way. Yet this little spot manages to support about twelve thousand cattle—that is, roughly speaking, one for every two acres of its surface—rocks, roads, waste, and house-room for 60,900 people included. And it has done this for the last twenty years, at least, for the census of 1861 gives the number of cattle in Jersey as 12,037. What is more remarkable it exports every year above 2,000 head, the average export, by the customs returns for the last eighteen years being 2,049, nearly one for every ten acres. Now the total number of cattle in England only averages one head to ten acres. It therefore follows that, in proportion to its size, Jersey exports every year as many cattle as England contains. In other words if England were to export cattle at the same rate, her whole stock would be swept away in a single year—not a hoof would be left behind. The system that enables Jersey to do this must be worth considering, particularly in these days, when the English farmer is at his wit's end what to do, as his sheet-anchor, wheat raising, lets him drift upon the rocks.

But another, and not less striking, result of our management is the breed of cattle it has produced. Hitherto, it has been the accustomed fashion in England to look upon Jerseys as the curled darlings of fortune—pretty playthings for the rich—lovely little objects for the lawn—yielding a small quantity of very rich milk, cream and butter for those wealthy enough to afford such extravagance. That they are small we admit; beautiful, we grant. Fitness for the work is the thing; all the rest tinsel. The office of the Jersey is to convert grass and roots into butter, not beef. She is not bred to be eaten; she is too valuable as a butter machine. Then why should she be larger? And, far from being the rich man's luxury, she is more than any other breed, the poor man's necessity, the small farmer's best help.

We have seen that 12,000 cattle are here kept on a place of six miles square;

where rent averages £9 (\$45) an acre; where the farmers are smaller than anywhere else in the world; where every farmer works with his own hands, and is brought face to face with the wolf he must keep from the door. What do we see? The island eaten up with cows and the farmers beggars? On the contrary, the whole island is like a garden thickly strewn with comfortable, well-to-do houses and homesteads; we find ease and comfort everywhere, poverty and want unknown, beggars none. I do not say this is all the produce of cows; but I do say that our farmers (who have so close a fight, and yet are so wonderfully successful) must understand their business, and do not keep 12,000 cattle at a loss. If Jerseys pay here, with land at £9 an acre, can they be unprofitable in England, or anywhere else where butter finds a market? But we go much further; we hold that the Jersey cow is the most beautiful of her species, and the most profitable.

The Jersey does not claim to be the best animal for producing beef or milk or cheese. Her speciality is butter, and here she stands unrivalled for quality and for profit. All the beef for our 60,000 people is imported every week from the neighboring coast of France and from Spain; and this has been the case for the last hundred years at least, as the Acts of our island abundantly show. With our 12,000 cattle we do not rear a single bullock; neither do we make a single pound of cheese, and probably never did. As to milk, that of the Jersey cow is far too good for the milkman, who would find a Holstein or one of the deep-milking tribes of Short-horns much more profitable. Neither does the Jersey claim to be "a good all-round cow." The "good all-round cow" is an anachronism; she might have done very well when every man was his own butcher and baker. Nowadays the farmer is obliged to consider what particular line will best suit his circumstances and surroundings—whether beef or milk, cheese or butter; and he must choose his cow accordingly, for on this depends his success or failure. If he decided in favor of butter, there is no cow will suit him so well as the Jersey, for she is the only one that has been persistently bred for butter alone, and she is the accumulated result of some hundreds of years persevering effort in that direction.—*The Dairy.*

In a sweepstake awarded by butchers to the best animal under three years old, of any breed, in the American fat stock show, the 1st prize went to the white Shorthorn steer bred at Bow Park, Clarence Kirklevington by Duke of Clarence 4th, dam a pure Kirklevington cow. This is a fact highly creditable to Bates blood.

### A LONDON MARKET GARDEN.

To those interested in gardening pursuits, and others who are not, Covent Garden has always been looked on as one of the sights of London, and this in spite of its ridiculously inadequate accommodation, for if there is one place in existence more than another where continually each morning may be seen several thousand people struggling with the impossible task of squeezing four times the amount of material into a given space that the said space can be made to hold, it is Covent Garden Market. Under the disadvantage of a confusion that looks inextricable, with the untold thousands of tons of vegetables and fruit and flowers piled and heaped together in a way that does not admit of half the quantity being noticed, enough is to be seen to excite wonder in the minds of those unacquainted with the market gardens round London as to where it is all grown. Especially is this the case in the spring and summer months during the height of the season, when Rhubarb, Cabbages, Broccoli, Cauliflowers, Peas, Beans, Turnips, Carrots, Lettuce, and salad of all kinds, with Strawberries, Gooseberries, Currants, and other fruit, pour into the market in an endless stream of waggons and vans, that keep up a heavy rumble through the night on the various roads leading from the country towards London. The vast quantities of garden produce that regularly flow to this centre need excite little surprise when it is remembered that in addition to supplying the 1,000,000 of people within the metropolis no inconsiderable quantity passes through the market to the leading provincial towns.

There is an extensive tract of level land, beginning at Tottenham, and extending through Edmonton and Enfield, in the direction of Waltham and Chesham, forming a wide valley, with a deep rich alluvial soil of the right texture, neither too light nor too heavy. Under this, at a depth of 5 or 6 feet, is a thick bed of clean shingly gravel, insuring perfect natural drainage, but down to which, from the character of the soil, the water does not pass so quickly as to carry with it the mineral elements from the surface, or to leave it deficient in moisture. The valley collectively may be described as a sort of half farm, half market garden, gradually becoming less of the former and more of the latter. Many of these gardens are of large size, and, as those at all acquainted with market garden work will suppose, very well done. In a well managed market garden there is at all seasons of the year something worth seeing, but to give a fair idea of the work carried out, and the crops obtained, perhaps the best time is about the end of June, when these notes were taken.

The late Mr. Mitchell, father of the present owner, Mr. William Mitchell, began at Broadlands about 1839 with some 40 acres, which have from time to time since increased until now there are about 450 acres under cultivation. Some 25 acres are occupied with Peas and Apples, the rows of which stand far enough apart to admit of Gooseberries and Currants being grown between them, with, in some cases, Rhubarb. Of Peas, Williams' Bon Chrétien, Brown Bezels, and Hessel are the principal; Apples are confined mainly to Keswick Codlin, Manx Codlin, Gloria Mundi, and Monster Reinette, the last a large white cooking sort and a good keeper. The Peas were carrying a moderate

crop; Apples plentiful. Only one variety of Gooseberry is grown—a large, long fruited, white kind, without a man, that I believe the late Mr. Mitchell picked up many years ago in the West of England. It is a good grower and an enormous bearer; the crop, as well as the Currants, was very heavy.

This Gooseberry rarely fails to yield abundantly, appearing to be more hardy than other sorts. Plums to some extent are grown along with the Apples and Peas, and a large breadth alone, except the usual bush fruit; between Victoria and Pond's Seeculling are the principal varieties.

Raspberries are largely grown—a prolific red kind that has been long here is the only sort depended on. The land is perfectly adapted to Strawberries. Last year 27 acres were in bearing, consisting nearly all of one sort—Sir Joseph Paxton—which, being a heavy cropper and carrying well, is best liked. The rows are far enough apart to give plenty of room for cleaning and gathering; stable litter used to be employed for mulching, but now clean Barley straw alone is put in. The crop was very heavy. The young plantations of Strawberries are always made amongst Onions, of which there were last year about 20 acres. The Onions (White Port) usually follow Cabbages, the land being ploughed-up deeply in autumn, and left to mellow through the winter. A heavy dressing of manure is then put on and harrowed in and the Onion seed sown broadcast about the end of February or beginning of March, when the Strawberries, consisting of last year's runners, taken up from the bearing beds, are at once planted. Nothing could exceed the promising condition of the long rows of plants through this 20-acre piece. The thinning and weeding of the Onions is done by piece-work, £10 per acre being the price paid for the work. The crop this season looked well, but was not quite so even as could have been wished for. Mr. Mitchell grows his own onion seed, two or three acres at a time, about every other year.

Of Broad Beans there were some 7 acres by themselves, and nearly the same extent in alternate rows with Peas; the Pea most grown is Laxton's Supreme. The Beans and Peas were as even and fine a crop as could be imagined; the beans are cleared off as soon as picked, leaving more room for the peas, the rows of which are about a yard apart. Fifteen acres were occupied with Scarlet Runner Beans in rows a yard asunder: these are grown without sticks, the points pinched out so as to keep them dwarf; the plants were strong and vigorous, promising an abundant yield. Near these was a grand piece of Oats, about 15 acres, as free from weeds as the onion ground; here, also, was about half an acre of Broccoli for seed—Mitchell's Late White, an old, well-known variety, hardy, and in every way a sort that may be depended on. The stumps of this broccoli, that had occupied some 8 acres, were just cleared off, and the ground planted with Wallflowers, a noted deep red strain grown here very early. The plants were put in 12 inches apart in a row, and 18 inches between the rows.

At this point were 8 or 10 acres of Rhubarb—Mitchell's Early Albert, an excellent sort raised here, and which has been tried against the different kinds that have been sent out with a character of being early. Side by side with St. Martin's Early the

Albert is eight days in advance—an important consideration in market work. Gray Eagle is here looked on as the best favoured of all the varieties of rhubarb: it is a medium-sized sort. The Early Albert and Victoria are the kinds grown for early work; some 8 acres are covered early in the winter with 6 inches of straw, which brings it in considerably sooner than that left uncovered.

Last year's crop of potatoes occupied about 15 acres: Champion, Magnum Bonum, and Schoolmaster, are the sorts grown, and they looked very promising. Great attention is paid to cabbages, of which there were breadths in various stages in different parts of the grounds; there were dozens of acres without a plant amongst them that was not true to the variety. During the season the crops are gone over, and a selection of the best marked; when cut the stumps are taken up and planted together for seed. About half an acre of these selected stools are grown on for seed each year. In one place a piece of several acres had been cleared and again planted with cabbages; these were from spring-grown seed. Another breadth of 14 acres had been put in after winter Tares, and a space something less was in course of being marketed—an even and weighty crop. Each year a piece of from 6 to 8 acres is grown especially so as to be first in the market, which I understand Mr. Mitchell generally succeeds in by as much as two or three weeks. As may be supposed, these are sent in before the, are near the size the later crops are let to grow to before cutting, consequently they are planted closer. I understand that a thousand dozen of this early crop goes to one wagonload. I saw about 6 acres the past spring just as they were heading, and they were nearly a month earlier than any met with elsewhere. From this it would be supposed that some variety with a character for extraordinary earliness was grown, but such is not the case, for, after trying the various sorts that from time to time have appeared, Enfield Market is the only kind grown. Mr. Mitchell finds that with his time of sowing and after-treatment it will beat any other variety. Sown as early as the Enfield Market the other reputed early sorts would every plant beat. Six or seven acres of Cos Lettuce, which for weight and the even description of the crop it would be difficult to surpass, were just coming in.

Some 16 acres of Brussels Sprouts, from autumn-sown seed, were at this early period 15 inches high. These were intended to come in early in the autumn, and were planted about two feet apart in the rows, which were two feet six inches asunder. Ten or twelve acres of Savoy had been recently planted. About eight acres of red clover had just been cut, with more to follow, and four or five acres of spring tares—all heavy crops. Another large piece of tares was following wallflowers cleared off in the spring.

Of Parsley one might have supposed there was enough to furnish sauce, and to do the garnishing, for half London. Some six acres are grown in rows between the lines of gooseberries and currants that occupy a space in addition to those among the larger fruit trees, and four acres more in the open. Sage occupies two acres, and a similar extent of asparagus is grown in rows three to four feet apart. There is half an acre of Souvenir de Malmaison Rose, and as much of Sénateur Vaisse and Gloire de Dijon, the latter in immense bushes, with stems nearly as thick

as a man's wrist, yielding flowers in such size and quantity as I have not before seen equalled.

It must not be supposed that because so few varieties are grown of any particular thing—often, as will be seen, only a single sort—that it is through a partiality for old favourites, or in ignorance of what in the shape of new varieties is in existence, but simply that after all the so-called improved varieties that make their appearance have been tried they are found not equal to the kinds grown.

There are two things apparent in a well-managed London market garden—the cleanly condition of the ground, and the immense amount of manure used. Through the large extent of different crops here scarcely a weed was to be seen; everything in the vegetable way is grown in rows, that admit of horse-hoeing, which, so long as a weed appears, is kept constantly going, with hand hoes to finish the work. Manure is used in vast quantities, much of it from the train stables, where compressed moss is used for bedding the horses; none where sawdust is employed, neither is the sawdust manure liked. But there are other sources from which the most powerful of fertilising materials are obtained. The London police stations supply Mr. Mitchell, by contract, with the carcases of the stray curs that are unfortunate enough to be taken in charge by Her Majesty's representatives of law and order, and which, after their speedy dispatch by strychnine, are carted to Broadlands at the rate of 1000 a week(?) during the summer months. They are put in between thick layers of hot fermenting stable manure, which material is laid thickly round and on the top, so as to keep down the smell that would otherwise arise; here they lie until fully decomposed, when the whole, bones and all, are carted on and ploughed into the land.

From what has already been said, it will be seen that horse-power is more used in the cultivation than manual labour; to favour this the land is laid out in long stretches, but, nevertheless, a great deal of hand labour is required, even in picking the various crops. Much of this is done by women, of whom, during the busy season, from fifty to sixty are employed, mostly well trained active hands. The work is nearly all done by the piece; with some kinds of crops the best hands can earn as much as 7s. 6d. per day, working from about five in the morning until six in the evening.—T.B.

#### GENERAL LAURIE ON THE AGRICULTURAL SITUATION.

The Grangers are showing praiseworthy activity in the way of stirring up the Agricultural community to increased activity in Agricultural improvement, and to a sense of the necessity of some system of Agricultural Education. The following remarks from General Laurie's recent address deserve very careful attention:—

Whilst so many facilities are offered "our boys" to enter the ranks of professions, for the successful pursuit of which many must leave their native province, we may well enquire what is

done for the training of the industrial community which has to create the wealth. I do not propose to draw comparison between the different branches of industry and the encouragement each receives, for I believe that none receive the assistance they should in the shape of technical education, and that the country suffers in consequence. If our gold mines are of value to us, and a source of revenue to the province, it should surely be worth while to afford some theoretical and practical education which would quicken observation and lead to further discoveries of our mineral wealth. The late fisheries exhibition in London has taught those specially interested that there is much to be learnt in the method of catching and preserving fish—methods which would make the labors of our 70,000 hardy fishermen more productive, and stimulate the application of capital to this important industry; but the fisherman has not to cultivate his crop in order to obtain his harvest—bounteous Providence sends these vast shoals of fish ready for the hook or net, and fit at once for consumption, and the same Almighty hand has hidden away the mineral wealth to be brought to light and into use by the trained intelligence of man. But man lived before a fish was caught, or a ton of ore was mined or manufactured, and unless the soil was cultivated, the fisherman and the miner would both cease to exist. One is almost ashamed to repeat the old truth and yet it cannot be too often restated that the remainder of the world only exists on the surplus of the farmer's production, after he himself has first been supplied; and, if all those engaged in other pursuits would but recognise the full bearing of this simple fact, they would surely feel that their interests, even more than the farmers, lie in the direction of improved cultivation of the soil, and a greater yield in response to his efforts. It would then be reasonable to expect that the community as a whole would manifest some interest in agricultural operations and in assuming that those on whom the management and working of the land devolves should have received a thorough training, so that the surplus which is directly used to furnish them with food, and indirectly benefit them when the farmer invests it in the produce of their industry, or in obtaining from them professional assistance, may be increased to the utmost capacity of the land, but we know that nothing of the sort occurs "What shall I do with my boys?" Shall I send them all to college and let them take their chance of genteel poverty at home, or go into banishment abroad to get a living, or shall we recognize that this province, as fertile a peninsula as the Creator has provided, must be cultivated, and shall

we put our boys out to the land as farmers—what then are the chances for them?—In the Dyke land districts, good enough!—I visited Josiah Wood's farm (M. P. for Westmorland) lately. He has a large tract of salt marsh—this gives him manure, with this he raises a large breadth of turnips, those are fed whole to the cattle, the salt hay is fed uncut—thus the expense of attendance is very small, the food eaten is easily raised, and of small commercial value—the salt marsh furnishes the hay year after without requiring any enrichment, all the manure can be used for turnips on the upland; with such advantages farming is easily and profitably carried out with a little grain towards spring the cattle will gain 200 lb. each, live weight in winter, and thus a twelve hundred weight ox bought at \$3.00 per hundred live weight will sell in the spring at \$6.50 per hundred:—\$36—he will sell for \$77—a very fair profit of over \$40 for salt hay, turnips and a little meal. And this is only an illustration of good business capacity taking advantage of the chances offered. . . . We give our fellow Canadians of Ontario the credit of being the most hardheaded and pushing in the Dominion, and they undoubtedly do go-ahead. The provincial government in 1874, established a school of agriculture which in 1880 blossomed out into the Ontario and Agricultural College and Experimental Farm. It will probably astonish my hearers to be told that the farm without any dyked lands, and with apparently about half its area either in stumps, and stony, or else covered with thistles, was bought for \$75,000, and up to the end of 1880 the total cost of the farm, improved and stocked had been over \$198,000. The course of instruction afforded really goes far to educate a lad. Quebec, New Brunswick and P. E. Island, have each established a stock farm, but I am not aware that experiments are undertaken at any of these, nor is, I believe, instruction afforded. Again I ask, "What shall I do with my son?" If I wish to make him a farmer, how is he to earn the principles of his profession in Nova Scotia. He can read, but without guidance his reading will be very desultory. He can experiment, but more than probably he will travel over the road that has been frequently travelled before. Life is very short, a young man cannot well begin experimenting on his own account until he is of age; his energies will weary of this, or his mind will be occupied with other matters, family, social, political at the age say of fifty—hence his life for this purpose extend over thirty years, but it takes a full year to test any experiment in crop raising and from exceptional conditions, it may be necessary to try the same experiment

two or three times before venturing to work it out on a large scale. Thirty years, thirty experiments, contracted as I remark by possible necessary repetition—is it fair to the young man himself, is it fair to the community that he should, however capable, be left to struggle single-handed in such a matter? Is it not the duty of the whole community to shoulder such experiments? and be careful that capable men with the necessary knowledge and of trained powers of observation should undertake such experimental work. The improvement of stock is very important, but improved stocks can be purchased—knowledge and experience can only be acquired in the old-fashioned way, hard work. I believe that it would pay our province well to establish just such a school as the Ontario college at Guelph, even if we spent as much on it—it would afford the most effective answer to the question, 'What shall we do with our sons? Give them a thorough theoretical and practical training as farmers. We should hear less of the supposed necessity that exists for young men to leave our province and go to the United States to earn a living—they would learn that not merely a living, but a competence would be comfortably earned in our own province, and that, although we grumble at our climate, our land will give us as good returns as any in the known world, and our nearness to market gives us advantages possessed by few communities whose land is so readily obtainable and so productive. With half our population living directly by agriculture, and furnishing cheap food for the other half, who can thus enter into competition with other communities in manufacturing industry. It seems unreasonable that only \$12,000 should be expended by the province on agricultural objects. \$6,000 goes as dole in aid to agricultural societies, and \$4,000 to the very desirable object of exhibitions; the control of this expenditure eats up the rest and nothing whatever goes either in experimental work or in agricultural education; objects which I should be inclined to place before any other. I would not attempt to cross the Atlantic in a whaler if I could get a passage in an Allan steamer, but if it was of supreme importance to get across and I could obtain no other chance I should take the whaler. So if we cannot get the Guelph College perhaps we can devise some scheme that may come within our means, and at which the theory could be taught, the methods recommended put in practice and experiments worked out, and the results published for the general benefit and instruction of the cultivators of the soil. We have institutions of learning amongst us, with lecture rooms and appliances—we have professors of natural sciences

attached to these institutions, and in more than one case I believe there is land attached where the practical work might be carried on and the experiments conducted under proper supervision. The professor who undertook the theoretical instruction might reasonably receive a supplement to his salary—from the public funds;—he undertaking to conduct experiments and publish the reports giving full details. The farm superintendent would afford the practical instruction and should likewise receive part of his remuneration from public sources, although his skillful management of the farm should obtain a larger yield than under ordinary management. A heavy outlay would necessarily be required at first for model farm buildings, and friends of the institution, who desire to give it a special technical character, would probably assist in the erection of these. I do not propound this as a perfect scheme—it is merely an expedient to stop a gap, and meets a difficulty until some better machinery can be supplied. Undoubtedly an independent organization would be more satisfactory, but under existing circumstances I see no probability of compassing it.

The resources of this Province, both agricultural and other, are too great for it to remain a Sleepy Hollow much longer. General Fielding's highly trained emigrants, and graduates from Guelph and Colleges organized like it, will pour in and possess the land, and our lads, with a fair general education, but no special technical knowledge will be at a serious disadvantage, and we shall see them crowded out of the land they have the best right to possess. I earnestly press on the men of Nova Scotia, especially the agriculturists, the necessity of standing shoulder to shoulder, and making the matter of agricultural education and experimental farm work their platform; to my mind it dwarfs all other questions that we have before us—the future well being and progress of the province depends on some action to this end being taken—so that the opportunity for practical agricultural education will furnish the reply to the question our fathers are mentally putting to themselves here, as well as in old England—"What shall I do with my son?"

**HERD MANAGEMENT.**—Mr. Housman, in the *Live Stock Journal*, has raised a somewhat curious point. Breeders of Hereford cattle are far more willing to go on using an old bull—which has proved himself a good stock-getter—than are Shorthorn men. This criticism seems to us to involve a serviceable warning. It is a fact that Shorthorn bulls, above 3 years old, do rarely make anything like their real value; and it is another fact



that by far too many young bulls are tried prematurely, to the superseding of proved sires. But the explanation of the practice seems to lie in this position—that Shorthorn tribes in good repute produce more thousand bulls of fashionable lineage in a year than Hereford or Ayrshire do of tens, so that there is always large choice of Shorthorn bulls. Whilst Angus and Herefords are now under the influence of a keen foreign demand, the young bulls are drafted away to customer as fast as they are ready for use. In consequence of this removal, the old stagers in these breeds must often be retained in service in order to let the young ones go. But in spite of this explanation, it still seems true the state of opinion is not wise which determines that, except in one or two herds, an elderly shorthorn bull is unsaleable at anything beyond butcher's prices. For, as it seems to us, the use of bulls advanced in years has a distinct tendency to reduce stature, and to produce small, compact animals—i.e., the stamp which is now most in demand. And therefore we believe Mr. Housman has done well to call attention to the neglect of old bulls; for a freer use of mature sires would do something to improve Shorthorns. The show bull of the last three seasons, Lord Zetland was begotten by a sire more than 10 years old; and Mr. Hendley's exhibits are mostly by Sir A. Ingram, who is not much younger.

### SILOS.

In June last we erected, and the following month filled a small experimental silo, and the results of our experience we gladly place at the disposal of our readers.

The building, inside measure, is 18 feet long, 9 feet wide, and 13 feet deep—ends circular—built in the side of rapidly rising ground, close to the cowhouse. So that while one end is sunk about 8 feet into the ground, the other is on a level with the surface. A drain pipe, a few inches below floor level, is carried round the building on the outside, emptying at the low end, the drain above the pipes being filled with stones to ground level. Floor is of concrete, of fine gravel and cement, having a slight fall to one end, in which is sunk a small cesspool with grating over, from which a lead pipe is carried outside, and on the end of which is a tap. Walls of stone, faced inside with brick to the height of 13 feet, and on this a coat of plaster of cement, finished to a perfectly true and smooth surface.

A door at the end where the surface is highest, and in the gable is placed for filling, and at the other end, next the cowhouse, another is placed at floor level for emptying—the latter bricked up and plastered inside, but opened when the first section of ensilage was cut down to its level. Roof covering slates. Estimated capacity 40 ton, but experience proved this under the mark, and we find we have space for 45 ton. Weights

used are of cement concrete, 1½ cwt. being put on each foot super.

In the first week of July the first filling of 15 ton of very coarse grass unchaffed, was put in. A heavy rain had fallen in the morning, and the grass was wet as it well could be. It was evenly packed, and well trodden down and weighted as above, same day. At intervals of a week three more fillings were put in, the weights being replaced after each filling, the usual 2-inch boarding being placed between weights and grass. The last three fillings were with grass of good quality, and put in when the weather was dry. I may here remark that the drainage from the grass was so trifling that I consider the cesspool pipe from it to be unnecessary, and am inclined to believe that where water is found in any quantity it must get into the silo by the floor or walls being non-water-proof.

In the first week in December the silo was opened, when 2 or 3 inches on the top was found to be mouldy; but with this exception the grass was in a state of perfect preservation. It was offered to eighteen milk cows, and some five or six took to it at once, and by the end of the week the whole ate it with relish.

We cannot, however, as some other experimenters have done, report any increased flow of milk by cows eating it; but this may be accounted for by the different modes of feeding previous to the use of ensilage. We can easily imagine, if sparingly fed, or wholly on dry food, that succulent food, as ensilage is, would be likely to increase the milk. But be that as it may, we have not been able to increase it. Previous to being put on ensilage, the cows had a mixture of bean, oat, and maize meal; 28 lbs. of mangel per day, and good hay *ad libitum*. Mangel was discontinued when ensilage was given, but in other respects food the same. During the first week they lost milk, but by the end of the second had nearly recovered, but up to now have not exceeded the quantity given when on mangel diet. The butter from the milk is excellent.

We abstain from detailed figures as to cost of silo and its filling, but we are on safe ground in saying that the cost of erecting a silo in a substantial manner, perfect in detail, need not exceed £1 for every ton of its capacity; that is, at 5 per cent. on outlay, the rent to store a ton of ensilage would not exceed 1s. per year, and in average circumstances probably much less.

Again, the cost of securing ensilage will not exceed the cost of making hay; our experience enables us to say it costs less. Moreover, we can only make hay when the sun shines, whereas with the other the sun is a factor that does not influence the operation. This being so the question converges to a single and very narrow issue—viz., this, the relative value of a given quantity of grass made into hay, good or bad as chance may befall, as compared with the same, preserved uniformly good, in a silo.

We must confess that none of the published experiments on this point that we have seen are altogether satisfactory. Yet enough is known to lift the matter from the region of doubt, and to render this matter of grass preserving a question of the very first importance, alike to owners and occupiers of land.—W. J. M. in *Agricultural Gazette*.

### Advertisements.

Resolution of Provincial Board of Agriculture,  
3rd March, 1882.

"No advertisements, except official notices from recognized Agricultural Societies, shall be inserted in the JOURNAL OF AGRICULTURE in future, unless PREPAID at rate of 50 cents each insertion for advertisements not exceeding ten lines, and five cents for each additional line."

### FOR SALE.

**DURHAM BULL "Rob Roy,"** Color Roan, two years old in June. Well bred. Registered Pedigree. In good condition. Apply to Professor Lawson, or the owner,  
THOMAS DUNLAP,  
Lower Village, Truro.  
Jan. 20th, 1884.

### THOROUGH BRED

### SHORTHORNS FOR SALE

2 COWS, one to calve in March, one in May; 2 BULLS two years old in the Spring; 1 BULL CALF, eight months old. Cows imported from Ontario; Bulls from one of the Bulls imported from England by the Board of Agriculture in 1881. They are all choice stock, and can be bought cheap.

W. M. BLAIR,  
Truro.

Jan

Truro.

**RENNIE'S**  
SELECT  
Field, Garden  
AND  
Flower  
**SEEDS**  
ARE  
THE BEST  
THE HANDSOMEST  
AND MOST COMPLETE  
CATALOGUE FOR 1884  
FREE TO ALL INTENDING PURCHASERS.  
**WM. RENNIE, TORONTO.**

### FOR SALE OR EXCHANGE.

A GUERNSEY BULL, 3½ years old, for sale, or will exchange for a SHORT HORN DURHAM.

HUGH FRASER,  
Sec'y. Progress Ag. Society.  
Elmsdale, Dec. 28, 1883.

### WANTED

TO purchase by the Saint Andrew's Agricultural Society, a thoroughbred SHORT HORN DURHAM BULL, age, about 2 years. Address (stating girth, weight, pedigree, price, &c., &c.)

D. CHISHOLM,  
Secretary Agri. Society.  
St. Andrew's, Co. Antigonish, Jan. 4, 1884.

### The JOURNAL OF AGRICULTURE

—is published monthly by—

A. & W. MACKINLAY,  
No. 10, GRANVILLE STREET,  
HALIFAX, NOVA SCOTIA.

### TERMS OF SUBSCRIPTION:

Fifty cents per annum—payable in advance.  
Single copy five cents.