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

VOL. II.

HALIFAX, N. S., MAY, 1872.

No. 77.

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Halifax, 20th April, 1872.

It affords us much pleasure to be able to publish the following Speech of I. Longworth, Esq., Member of the Board of Agriculture for Colchester, delivered at a Conference Meeting of the Board with Agricultural Committee of the House of Assembly, on 22nd March, 1872, an abstract of which appeared in the minutes of the proceedings of the Board, published in the April number of the *Journal of Agriculture* :—

Mr. President,— Hoping that it will not be considered out of place on my part, in the hearing of the Chairman and Members of the Agricultural Committee of the House of Assembly, to make a few observations on the great subject which has brought us together—I do so, not because I deem it necessary to say one word to increase the deep interest those gentlemen already take in the subject,

but to satisfy them that the members of this Board are alive to its great importance to the country. As a prominent member of the late Board, in expressing himself relative to the Act under which this Board was formed, stated that "it would never do to permit the results of their recent successful efforts to perish," I hope it will be the great aim of this Board, as it is doubtless the strong desire of the Legislature, and the earnest wish of those whom we represent, to carry to a happy issue those grand measures for the promotion of the agriculture of the Province, which that Board so auspiciously inaugurated. That the former Board was enabled to effect so much good at so small a cost to the Province—some \$5,000 or \$6,000 a year on an average, a less sum than Mr. Cochrane of Compton, Ontario, often pays for one animal to improve his herd—is matter of surprise to all of us. What this good amounts to, is well known to every person who take an interest in the advancement of Nova

Scotian husbandry. Perhaps it is most visible in the marked degree of improvement that has taken place of late years in neat cattle in certain parts of the Province. For instance, last fall I attended a sale of cattle within the bounds of the Onslow Agricultural Society, and witnessed the astonishment of many farmers of the old school in seeing a pair of yearling steers—half-bred Durhams—sold for \$37.50; and I was much gratified to notice that they were not more surprised at the big price than they were at the large animals. They saw there was money in them, and after they were knocked down, a cautious farmer regretted that he had not run them up to \$40. In the same locality, a gentleman has a pair of two year old steers of that breed, for which he refused \$100. The other day, Mr. James Leaman, an enterprising butcher in Truro, paid \$180 for a pair of half-bred, and at the age (three years old) half fed, Durham steers. One of them, I saw alive, girted 7 feet 2 inches, and

was laid at 900 of beef. Since coming to town, I have been informed that F. R. Parker, Esq., of Shubenacadie, lately received \$180 for a pair of three year old steers, laid at 1,500 pounds dead weight. And Mr. Leaman, the butcher referred to, has bought for Easter, at 13½ cents a pound, Mr. James Norrie's splendid pair of four year old Durhams, stall-fed six months, and laid at 2,500 of beef. One girls 7 feet 9 inches and the other 7 feet 11, and, for all those nice points which distinguish the breed, would fill the eye of a good judge of cattle from Smithfield Market.

But it must not be supposed that the late Board has done all that can be desired to promote the cause of agriculture, and that nothing remains for the present one to accomplish. Unfortunately, "the results of their recent successful efforts" can only be found, and to a limited extent, in the more advanced agricultural districts, where agricultural societies have been in operation, and have not extended to the more remote, but equally fertile farming sections, which must be reached before Nova Scotia becomes, as I hope it will ere long become, in an agricultural point of view, as it is in a geographical, the frontier Province of the Dominion of Canada. This can readily be understood from the fact that not more than 3,245 out of 50,000 inhabitants who follow the plough, are members of the Agricultural societies, the principal recipients of the benefits accruing from the operations of the Board. And when it is considered that there are at least 120,000 milch cows of common breed in the Province, and 330,000 sheep, in some parts not much better than a cross between a woolly dog and a goat, upon which any improvement in the breeds must be founded—we may well exclaim, what are the few animals hitherto imported for breeding purposes among so many? Indeed! before the 150,000 steers in Nova Scotia of the large-boned, long-legged and long-lived breed can be worked out and replaced by fine and thrifty animals of the description noticed, and before the character of our sheep, both for mutton and wool, can be materially improved, the Province has yet to make many large and judicious importations of stock.

It is quite evident that agriculture, cattle farming, sheep husbandry, and every other important branch of agriculture, as carried on in Nova Scotia, is capable of vast improvement; and to my mind, it is the paramount duty of the legislature, and should be our highest aim, to see that that improvement takes place. It is impossible for it to go on without benefitting the inhabitants in many direct and indirect ways, largely increasing the revenue, causing the Province to become a more attractive field for immigration, and generally producing a wonderfully beneficial

effect upon the resources of the country. Besides bringing people into the place, an advanced state of agriculture will keep the sons of our farmers at home, many of which valuable class, unfortunately for our husbandry and well-being, are tilling the soil and developing the resources of other lands.

The small attendance of members of this Board is much to be regretted, but owing to the impassable state of the roads from a succession of heavy snow-storms, almost without precedent in the history of the country, is unavoidable. I was in hopes that every member would have been here, prepared to state the present urgent agricultural requirements of the Societies and Counties represented; and that, for the information of the Legislature, from the various statements, an estimate might be formed of the money grant needed to meet those requirements. To my mind, it is exceedingly desirable that some very decided steps of progress be made in the cause. While the Government might, to the great advantage of the country, establish a School of Agriculture, where young men could be instructed in the art of farming, and qualified to become more successful agriculturists than their fathers ever dreamed it possible for them to become; and, while the same authority might, with like good effect, order an agricultural survey of the Province, and let it be known where good farming lands are vacant, and what parts are better adapted than others, for certain agricultural pursuits, it would seem that the more important duties of this Board are to foster Agricultural Societies, encourage their formation where none exist, import stock and seed grain, and generally promote those objects which more immediately concern the welfare of the farmer. After carefully surveying the whole ground, the members of the Board present have come to the conclusion, leaving the importation of stock out of the question, that they cannot, with advantage to the Province, perform what they conceive to be their duty with anything short of a legislative grant of \$10,000; and, they are strongly of opinion that an additional amount, equal to the sum invested for a Stock Farm, will be necessary for an importation of stock, now very much required.

We therefore earnestly hope that our legislators will fully appreciate the grave importance of the subject under consideration, and that they will evidence their appreciation by placing at the disposal of the Board such a grant of money as will prove an effective lever in its hands to raise the Province to a higher agricultural position than it has ever occupied, and better prepare the country for the reception of the tide of immigration which the Government, by laudable efforts, are striving to bring to our shores.

FLAX MACHINERY.

A desire having been expressed by David Matheson, Esq., of Pictou, for information respecting flax machinery, suitable for a water power in Pictou County, we made enquiries of Professor Buckland, of Toronto, which resulted in the following correspondence:—

BUREAU OF AGRICULTURE AND ARTS,
ONTARIO,

TORONTO, March 23, 1872.

My Dear Sir—Your favor of the 29th of February was duly received.

Mr. Donaldson, to whom I applied for specific information, being out of town, I could not reply before. Mr. D. informs me that he has written to you, and forwarded his pamphlet on Flax. He expects to see the manufacturer referred to at a public meeting, in the course of a week or two, when he will inform you as to price, &c.

We have very severe weather for the season, though not much snow in this section. I fear we have a poor lot out for winter wheat. The ground was so dry when it was sown, germination in many instances was prolonged and imperfect, and a weakly plant has been subjected to alternate freezing and thawing, with much of the surface unprotected by snow. I was at a farmers' meeting at Markham yesterday, when a general opinion was expressed, that a slight covering of rough manure, straw, leaves, &c., at the beginning of winter would be very beneficial.

I learn that you have had on the seaboard, and many miles inland, very severe snow storms.

Yours truly,

GEO. BUCKLAND.

Professor Lawson.

TORONTO, 22nd March, 1872.

Sir,—At the request of Professor Buckland I have now the honor of sending you a small pamphlet on the culture of flax, written by me some years ago.

At present, this business, is doing remarkably well in the counties of Wellington, Waterloo and Perth, some sixty miles west of this. Flax fibre as well as seed has brought high prices; 13 and 14 cents per lb. has readily been obtained for fibre, and \$1.40 and \$1.50 per bushel of 56 lbs has been obtained for seed. We have in Ontario some thirty Flax Scutching Mills.

The machinery used for Scutching is very simple, being steel knives placed in a shaft, and the best brake for preparing the flax for Scutching has been manufactured at the foundry of Jacob Beck, of Baden, County of Waterloo.

Any other information you may require I will be only too happy to furnish at any time.

And have now the honor to be,

Sir,

Your obt. servant,

JOHN A. DONALDSON,
Government Agent.

Professor Lawson, Halifax.

BUREAU OF AGRICULTURE AND ARTS, }
ONTARIO, }

Toronto, April 9th, 1872.

MY DEAR SIR,—Mr. Donaldson has just handed me the enclosed memorandum. Baden is in the County of Waterloo on the Grand Trunk Railway. Mr Donaldson says that the machinery mentioned is of good workmanship, and amply sufficient for the purpose.

I mail you a copy of our new Daily, in which reference is made to the recent meeting of Flax-growers, who have formed themselves into an Association.

The season is very late—frost not yet out, but we have now warmer and moister weather, and the snow rapidly disappearing.

Yours very truly,

GEO. BUCKLAND.

PROFESSOR LAWSON.

P. S.—Thanks for the paper containing your Report. Your Board seems to have undergone considerable modifications of late. And it is pleasing to observe that many of your district societies are progressing. I will send you a copy of our Report as soon as we can get printers to finish it. The strike still continues—but cannot, I should think, last much longer.

MEMORANDUM.

Brake for preparing flax for scutching can be had at Baden for.....	\$200 00
Shaft with ten Scutchers costs.	200 00
Thra-her, Fanner, & Saw Duster	250 00

\$650 00

A good hand should catch from 80 to 100 pounds of flax per diem.

JOHN A. DONALDSON.

THE NEW YORK STATE AGRICULTURAL SOCIETY.

The successful operation of agricultural organizations in adjoining Provinces and States cannot be without interest to our farmers. It is for this reason that we occasionally devote a portion of our limited space to their reports. The proceedings of the New York State Society at their recent meetings on 13th and 16th February show unusual activity, and we therefore give a brief summary of their more interesting work:—

BET SUGAR.

The Secretary presented a communication from Mr. King, C. E., assistant to

the Professor of Chemistry at the Massachusetts Agricultural College, in relation to the beet sugar, with samples of sugar made from the beet at that College, and requesting the aid of the society in procuring the growth of experimental crops of sugar beets at various places in the state, with a view of determining the adaptation of that industry to this state, and of having specimens of each crop grown sent to the said College for analysis.

VETERINARY SURGEON.

The Committee to which was referred the subject of the appointment of a veterinary surgeon, to be in the employment, or at the call of the society and its members, beg leave to report: that they would recommend the employment of a veterinary surgeon, to be subject to the call of the members of the society, and of the farmers of the state at large; that a sufficient sum should be guaranteed as gross income, from the society and from his practice, not to exceed \$1,500 a year; that a scale of prices should be fixed by the society which it should be understood that members and others are to pay; but, at the same time, no obligatory fees are to be collected, as the object is protection to the great stock interests of the state, and to make the society of more practical benefit to its members.

Which report was accepted; and, on motion, the committee was continued, and instructed to complete the details of plan, and to correspond with members of the profession and others with a view to the selection of a fit person to be employed.

REPORT OF THE EXECUTIVE COMMITTEE.

The season of 1871, as compared with that of 1870, was alike in the extreme and long continued drought in the State of New York, but different as regards temperature, which was unusually moderate and equable. The crop of wheat was of unusual excellence, both in quantity and quality; returns of forty bushels of white winter wheat per acre having been not unfrequent, and forty-five bushels being reported in one or two cases. Spring grains are, in most of the grain growing counties, reported as giving full average crops, even where there was least rain. Corn is, probably, under average; some of the best counties, as Monroe, Wyoming and Yates, reporting largely diminished yields. The hay crop is, in several counties, stated as better than the light growth of 1870, and in Cortland, as being large and of good quality; but the general tenor of the reports is, that the crop is light, though of excellent quality, and the price which it commands in almost all the districts from which returns have been received, indicates a decided deficiency. This is, however, doubtless due, in some measure, to

the fact that very little old hay was carried over from the previous year.

The effects of the drought, in spite of which the grain growers have, upon the whole, made satisfactory crops, have been most felt in the dairy districts of the State; and the diminished returns from this important branch of our agriculture must seriously impede progress, if not actually occasion distress in some counties whose marketable surplus consists chiefly of dairy products. Besides the drought which, beginning in May in a large portion of northern New York, may be said to have lasted through the growing season, there were, as an additional calamity, immense numbers of grasshoppers, which appeared so early as to inflict considerable damage upon the grass standing to be cut for hay, and afterwards devoured a large share of the grass of the pastures, besides injuring the late fields of spring grain and the corn when in the silk.

The occurrence of two successive years of drought and short hay crops, is an event which should teach the dairy farmer the wisdom of under-stocking, rather than overstocking his farm, and more especially his pastures. In fact, the evil of overstocking does not end with the year. In 1870, pastures became very short before the end of the haying season; and, in consequence, it became necessary to feed the aftermath very early; and, the pastures not recovering, cattle were obliged to be kept upon the meadows until late in the season; hence, perhaps, as much as from any other cause, the light hay crop of 1871. Again, in many dairies, the yield of milk became inconsiderable and unprofitable early in September, and many cheese factories ceased working in that month. With pastures less heavily stocked, a moderately remunerative yield might have, in many cases, been maintained, and the loss of the most profitable month to the butter makers would not have been incurred.

The evil effects of drought upon pastures, may be mitigated by the provision of green crops to be used for soiling; or at greater, though doubtless sometimes profitable expenditure, by feeding the cows with meal; but pasture itself, the readiest and best resource of the dairyman, can not be made or purchased at the time or need.

As further showing the similarity of the seasons of 1870 and 1871, it may be mentioned that the mean rainfall of the State in those years, during the seven months beginning with April and ending with October, as given in the reports from the Agricultural Department at Washington, was, in 1870, 23.05 inches; and in 1871, 23.58 inches; the difference in favor of 1871, being only .53 of an inch. The rainfall of the same months, in 1869, was 29.79 inches; being 6.21 inches in

excess of 1871, and 6.74 inches in excess of 1870. With the exception of the month of May, however, the distribution of the rainfall, during the growing season, was greatly in favor of 1871: accounting, in great measure, for the crops of spring grain being better in this than in the preceding year. Thus in May we had, in 1871, 2.57 inches of rain; in 1870, 2.05; in June, 1871, 4.13 inches; in 1870, 2.93 inches; in July, 1871, 4.28 inches; 1870, 3.84 inches; in August, 1871, 5.24 inches; 1870, 3.7 inches; and although in the seven months, from April to October, 1871, had but .53 inch more rain than 1870, in the four months from April to July, 1871, had an excess over 1870 of 2.49, or say 2½ inches.

It may be further remarked, in reference to rainfall, that the meteorological records of the Agricultural Department strongly fortify the position of those of our farmers who prejudge the hay crop by the rainfall of the month of May; the rainfall, mean average for the State of New York, for this month, being recorded as in 1863, 4.66; 1864, 4.84; 1865, 4.41; 1866, 3.67; 1867, 6.69; 1868, 5.99; 1869, 3.86; 1870, 2.05; and 1871, 2.57 inches.

Of other crops and products, it is to be noted that there is an enormous yield of potatoes of unusually excellent quality, and free from disease. The price is low, but not yet below remunerative rates. This, it is believed, is the first year in which potatoes of the Early Rose variety have been taken to market by the canal-boat load. This sort has proved not only very early, but of good quality for winter use, and a good cropper; and it is quoted at this time, in the New York market, about 20 per cent higher than the Peachblow. Hops have been a moderate crop; but prices, owing to the failure of the crop in England, have reached very high figures. There has also been a very marked advance in wool, owing to the consumption caused by the Franco-German war; but it is feared that the rise in prices was too late to be of much benefit to American farmers.

The annual cattle show and fair of the society, held this year at the city of Albany, was a marked success, and the exhibition as a whole has never been surpassed in the history of the Society.

In the cattle department, besides the usual excellent show of Short Horns and Devons, and a larger turn out of Herefords than for some years previous, there was an exhibition of Ayrshires far superior to any ever before brought together in this state. In this class, competition extended beyond the limits of our own state, and some of the best animals shown were from Canada and New England. The gem of the class was the bull Mars, shown by Mr. John L. Gibb, of Quebec, while Messrs. Thompson, of Ontario,

and Birnie, of Massachusetts, showed herds of great merit, and carried off a number of prizes. In Jerseys, there was not only the largest entry at any of our fairs, but the highest quality and the closest competition. Of grade cattle the number was, as usual, small; and while it must be regretted that this practically most important of all the cattle classes should be so meagre at our state fairs, it is a satisfaction to know that it is gaining at our county and local exhibitions, showing that the state is really deriving direct and substantial benefit from the efforts for which the state of New York has so long been distinguished—to improve our cattle by the introduction of pure blood.

The entry of horses was not large, but the quality of the animals on exhibition has seldom, if ever, been equalled at any of our shows. This is especially true of the roadster class, which included a large proportion of animals of the Hambletonian and other strains of the Messenger blood, as well as many derived from other valuable families. In this department the show of breeding stock was larger than that of harness horses, and the studs of most of the eminent breeders in the state were represented.

In all the other classes of live stock, there was a good show, especially of long-woolled sheep, and of Essex and Berkshire pigs.

In the department of farm produce, the exhibition was quite equal to former years; and, notwithstanding the unpropitious season, the show of fruit was very respectable. In the vegetable hall, Messrs. Reisig & Hexamer, of New Castle, showed three hundred and eighteen varieties of potatoes, an exhibition almost unique and for which the executive committee awarded the large silver medal of the society. The committee desires also to acknowledge the spirited efforts of the exhibitors in the classes of fruits and flowers, in aid of the success of that part of the exhibition, and especially of Messrs. Briggs & Brother, Jas. Vicks, C. W. Crosman, and Ellwanger & Barry, of Rochester, and Louis Menand of Albany.

The show in the department of machinery and farm implements was stated by the vice-president in charge to be superior in many respects to that of any previous year. The interest in this part of the fair and the extent of the exhibition continue steadily to increase, and the improvement from year to year in the design and construction of the implement show is evident to the most careless observer. The machinery shown in operation forms one of the most interesting features of the society's annual exhibitions, and this department is not only among the most popular, but one of the most useful in the show, while it is

most gratifying to the officers of the society, as an evidence of appreciation of their efforts and of confidence in their impartiality, to meet here year after year the leading implement manufacturers of the country, either in person or represented by a most respectable and intelligent class of agents. In this department, thanks are especially due to Messrs. Townsend & Jackson, of Albany, who furnished, as their subscription to the expenses of the fair, the engine and all the line shafting and pulleys for driving the machinery shown in operation: and to Mr. H. R. Pierson, resident director of the New York Central and Hudson River Railroad Company, who granted the use of a locomotive boiler for the same purpose. Messrs. Townsend & Jackson's engine, though entirely new, performed admirably from the start, and was much admired.

The county and town societies continue prosperous, and their reports in many cases give gratifying evidence of progress and improvement. Almost all appear to be sustained and well managed. The American Dairymen's Association, which holds its annual meeting at Utica, continues to do a good work in diffusing more correct and scientific knowledge of the branch of agriculture in which its members are engaged; and the New York Dairymen's Association, established within the year, and which held its first meeting at Little Falls in January, promises to labour with equal energy and efficiency in the same field. The transactions of the latter association, and also of the American Fish Culturists' Association, at whose recent meeting at Albany very valuable papers were presented, will probably be embodied in the Transactions of this society.

The executive committee are grateful that they can report the state free from epizootic diseases during the most of the year, a fact for which there is the more cause for gratitude since the former law for the prevention of the introduction and spread of contagious diseases of animals expired in April, 1871, by limitation, and the state legislature of that year refused to enact any law for the protection of the herds of the state. The foot and mouth disease, the prevalence of which during the season of 1870 excited much alarm, and which, it was feared, would break out anew in the spring of 1871, seems to have disappeared entirely; and fortunately, the enactments which have been made by other states, both east and west, operate to afford a partial, but most useful, protection to the state of New York against the introduction of disease.

Of diseases not epizootic, there have been two out-breaks during the year of sufficient importance to require examination by the society. In July last, ver-

minous bronchitis, occurred in cows and calves in the neighbourhood of the village of Cuba, in the county of Allegany. This very destructive malady, caused by the presence of threadlike worms in the lungs and air passages, was very commonly supposed not to exist in America; but Professor Law reports this as the third instance of its occurrence in the state of New York brought under his personal observation. In September last, the society was informed of the existence of an obscure and fatal disease in a dairy of cows near the city of Albany, and it proved to be splenic apoplexy, a malady which has been unusually prevalent this season, and which is perhaps the most destructive and most frequent in its occurrence of all the diseases to which neat cattle are liable in this state. In the dairy referred to, sixteen cows died in eighteen days. Professor Law, to whom the executive committee return thanks for the promptness with which he responded to the call of the society, investigated this case also, and rendered all the assistance possible under the circumstances.

Of both these investigations made by Professor Law, in his capacity of consulting veterinarian to the Society, he has made copious reports, constituting valuable contributions to the knowledge of the subjects, and which have been published in the Society's monthly journal.

The Executive Committee has had under consideration the appointment of a veterinary surgeon who should reside at Albany, and be able to give more time to attending the calls of the Society and of its members than Professor Law can, consistently with due attention to his duties as Professor of Veterinary Science at Cornell University; and the subject has finally been referred to a special committee of the Executive Board. In view of the fact, that notwithstanding our enormous and constantly increasing investment in live stock, and the continual improvement in quality by which the value of individual animals is largely enhanced, there is hardly a competent regularly educated veterinarian in practice in this state outside of the principal cities, and a mere handful outside of the city of New York, it seems highly desirable that one should be employed by the Society under an arrangement similar to that of the Royal Society of England with Professor Saunders, and the necessary expense involved would seem to be fully justified.

In this connection, it may be mentioned that the Veterinary College of the city of New York, a regularly organized veterinary school, with a full and highly competent staff of professors, and ample accommodations for its work, has lately offered a free scholarship to the Society and to each of the state agricultural so-

cieties in the United States. The offer has been accepted, and duly announced; but no application for the nomination has been made. The fact that this institution, entitled, as it undoubtedly is, to the full confidence of the community, and with all necessary appliances for affording a special education of the highest order, should languish for want of students, is a painful evidence of the apathy of our people as regards this most important subject. The employment of an able and well educated veterinarian by the Society, and the extension of his operations throughout the state, would, undoubtedly, have a good effect in awakening the citizens of our state to a proper sense of the usefulness of the profession, and tend to reduce very materially the annual losses of stock by disease.

Humanity, also, prompts to efforts to rescue our dumb animals from the neglect they now suffer when attacked by disease, and from what is far worse, the cruelty of empirical treatment either by their owners or by ignorant pretenders to veterinary skill.

With the year 1871, the State Society completes the fortieth year of its existence. Established in 1832 by the illustrious James Le Ray de Chaumont and a noble band of men, to whose memory honour will be forever due, revived and extended in its scope by the institution of its annual cattle show and fair in 1841 by Wadsworths, Beekman, Lenox, Van Rensselaer, Prentice, Rotch, Sherwood, Tucker, McIntyre, Livingston and their associates, the society has ever since pursued its steady course, enlisting in its ranks the most enthusiastic and intelligent agriculturists and friends of agriculture of the state, and maintaining a constant advance in the improvement of the great interest which it was established to promote. It has been asserted that the lands of the state of New York were becoming exhausted, but the error of the statement is palpable to all acquainted with the facts, and the reports made to the agricultural department show plainly that improved returns are following as the effect of improved methods, improved seeds and improved stock. The society has outlived two charters, each for twenty years, and now enters upon a third term, this time of forty years, under the re-enactment of its charter by the legislature at its last session. What the society especially needs now, as a guaranty of its continued usefulness and prosperity, is the more active interest of its members in the management of its affairs, and their personal co-operation with the officers in the prosecution of its work and the extension of its operations.

During the year, the Society lost by death several of its most valuable members, of whom memoirs are given.

HAND THRASHER.

A correspondent writes a note of enquiry on the subject of a Hand Thrashing Machine. If any of our readers can supply the needed information, we shall feel obliged by a note from them:—

"I am informed that there is a machine for thrashing out grain, manufactured somewhere on this Continent—said machine is worked by hand power, and two men can thrash about seventy bushels of grain in a day. Can you give me the necessary directions to enable me to correspond with the Co."

Communications.

FARMERS' CLUB.

DEAR EDITOR.—Notwithstanding the snowdrifts, our Club has met regularly, once a fortnight, all winter. The meetings have been large and the interest in the subjects discussed well sustained. Our manner of proceeding is to decide at the close of each meeting the subject to be discussed at our next, and to appoint one of our number to open the discussion. After the opener has made his speech or read his paper, as the case may be, every member is expected to give his views upon it. In this way arise some very lively debates between those who adhere to some long existing practice, and those who advocate some new system; or, again, between those who speak from practical knowledge, and those who maintain a theory by reason.

We have discussed the treatment of various soils, the rotation of crops, the feeding of stock, the breeding of stock, and the culture of fruit trees. Our last evening was spent on this latter subject. About fifty persons were present, among whom were Dr. Hamilton and Robert Starr, Esq., of Cornwallis; George V. Rand, Esq., and several other gentlemen from Wolfville. These gentlemen, being members of the Fruit-Growers' Association, and experienced cultivators of orchards, gave us a large amount of valuable information, and added greatly to the interest of the meeting. Mr. Starr gave very minute explanation of the proper method of planting a young orchard, how to cultivate it while growing, how it should be primed and cared for throughout all its stages of growth.

Dr. Hamilton substantiated the remarks by Mr. Starr, but dwelt more largely on the necessity of farmers taking more interest in their profession by joining heartily associations, and taking periodicals that give information respecting their profession. He also advocated planting orchards, and asserted that nothing could be planted upon the land that could equal the returns from a fair orchard. He asserted that

Annapolis valley, from Blomidale to Annapolis Royal, was capable of being made into one vast orchard, and as such, could not be equalled in the world.

From what I have seen of the workings of our Club this winter, I am fully convinced of their usefulness. The members of our Club will be proving the folly or truthfulness of what has been asserted, by actual experiment; and also, will be taking more notice of what is passing daily before their eyes. Hoping that Farmers' Clubs may be formed in every farming community throughout the Province,

I remain yours, &c,
THOMAS TUZO, *Sec'y.*
Horton Landing, King's County,
April 13th 1872.

ORCHARD GRASS—CHEVALIER BARLEY.

My Dear Sir,—I noticed that in the reports of the transactions of the Central Board, resolutions were passed for a new importation of seeds, among others the Orchard Grass, (*Dactylis glomerata*). I have had considerable experience with this grass, and I strongly advise farmers to try it on a very small scale, at first at least; it is certainly a very abiding grass, if I may use the term, but only in certain localities. We recognized it in a shady situation on a Falmouth farm, where it had been sown perhaps twenty years before. It makes exceedingly wiry, unpalatable hay, does not make a very early matted pasture, but when hot weather comes, shoots ahead very rapidly. Where I have sown it on land exposed to the rays of the sun, it rapidly degenerated into unsightly tufts. In my opinion it is not to be compared, either for pasture or hay, with the much despised meadow fox-tail (*Alopecurus pratensis*), wild Timothy of Nova Scotia. This grass being allowed to reseed itself with degenerate seed, and uniformly cut a month too late, has never had a fair chance. It is a most abiding grass, forms a thick turf, is more palatable than orchard grass, and rather earlier. You may recollect the specimen I sent you some time ago. The seed barley I sent to Halifax is the Chevalier Barley, but, as you may say, thorough bred.

Yours very truly,
ALFRED C. THOMAS.

FOR SALE.—The Thorough bred Durham Bull, "Lord Derby," five years old, imported by the Board of Agriculture, has proved himself a good stock getter, and perfectly quiet and easily handled. Enquire of SAMUEL PALMER, Windsor.

Reports of Agri. Societies.

YARMOUTH COUNTY AGRICULTURAL SOCIETY.

Quarterly meeting—a fair attendance—the President in the chair. Number of members for 1872 to date, forty-eight (48); amount subscribed two hundred and seventeen dollars (\$217).

Minutes of last meeting read and approved. Mr. L. E. Baker having sent in written resignation of the office of Secretary, on the ground of want of time, his resignation was accepted. The subscription list for the year having only been commenced, and of those eligible to supply the vacancy none being present, Charles E. Brown resigned as President, and was re-elected Secretary and Treasurer, Mr. Wm. Burrill being re-elected President.

Moved that an Exhibition be held first Thursday in October, premiums to be offered to the amount of five hundred dollars (\$500), details to be arranged at next quarterly meeting.

The following additional Exhibition Bye-Laws passed:

"No person shall act as a judge in any class, or section of a class, in which he is an Exhibitor."

"No person will be allowed to interfere with the judges while in the discharge of their duties. Exhibitors so interfering will forfeit their rights to any premium to which they might otherwise be entitled."

"No person shall be allowed to enter for Exhibition more than one specimen in any one section of a class, unless the additional article shall be of a distinct named variety or pattern from the first, this rule not to apply to animals, but to apply to all kinds of grain, seed, vegetable products, fruits, manufactured articles, &c., &c., in which each additional specimen would necessarily be precisely similar to the first."

"Stock or articles not entered for premiums to be so labelled."

Voted to await the organization of the Board of Agriculture before making any further appropriation of the funds of the Society for 1872.

It was moved to order a sufficient number of either the *American Agriculturist* or the *Canada Farmer*, to supply a copy gratis to each member of the Society. While it is unquestionable that each member should take a good Agricultural paper, the value of such a paper is best attained by paying cost, and these papers, as other things wanted, are supplied to members at cost, for the asking. What costs nothing is little thought of, the gratis business, from Adam down, having proved unsatisfactory. Motion lost.

Voted that Messrs. Frank Killam, Benj. Killam, and the Secretary, be a committee

to ascertain if a suitable lot of land can be bought for the Society, and report at next quarterly meeting, first Tuesday in May.

CHAS. E. BROWN, *Sec'y.*
Feb. 6th, 1872.

ANNAPOLIS AGRICULTURAL SOCIETY.

The Annual meeting of the Society was held at the Court House, in Annapolis, on the first Tuesday in December, 1871. In consequence of the storm, some of the Committees were absent, and we regret we are unable at present to give a full report of the financial affairs of the Society. In accordance with the resolution passed at the last annual meeting to devote the funds of the Society for that year to the improvement of stock, a bull was purchased from Mr. Pinco, of Cornwallis; he is a superior animal and was bred from the Durham bull "Sir William" imported by the Board of Agriculture from Ontario, and sold to the Cornwallis Agricultural Society in the autumn of 1866, and from the Durham cow "Agnes," purchased from M. H. Cochrane, Esq., Compton, Quebec, and sold to Dr. C. C. Hamilton, of Cornwallis, in 1867.

At the Agricultural and Mechanical Fair advertised to be held at the Garrison Field, Annapolis, on the 18th October last, under the auspices of the Annapolis Agricultural Society, and open to the public free of charge, and thereby offering a rare chance for the sale and exchange of different commodities, but little was done. Some of the stock exhibited sold at fair prices. There appeared to be more buyers than sellers, and sales were made of several articles to be delivered. The reason assigned by many for so few exhibitors at the Fair, was that no premiums were offered, and owing to the facilities for shipment now by railway, the farmers find a ready sale at home for anything they have to sell, and also many of the farmers were busily engaged in putting up their apples, (which I may here state were an abundant crop in this part of the County, and of a superior quality.)

The following were elected officers for the ensuing year:—George Whitman, *President*; John M. Harris, *Vice-President*; Alexander Harris, *Treasurer*; Stathern Bailey, *Secretary*; Richardson Harris, *Assistant Secretary*; *Directors*—E. C. Cowling, Geo. S. Hoyt, James Horsefall, Geo. Wells, Robert J. Spurr.

George Whitman was elected a representative of this Society to meet with the representatives of other societies to elect one of their number to represent the County of Annapolis at the Central Board of Agriculture, as required by the amendment to the act for the encouragement of Agriculture, passed during the last session of the Legislature.

The meeting was then adjourned until the last day of February, then to meet at the Court House, Annapolis, to settle up the business of the past and make the necessary arrangement for the ensuing year.

GEORGE WHITMAN, Pres.
STATHENS BAILEY, Sec'y.
Round Hill, Feb. 2nd, 1872.

Miscellaneous.

SPRING WORK.

(From the Gardener's Monthly.)

FLOWER GARDEN & PLEASURE GROUND.

The cultivation of flowers, as distinct from mere massing for effect, is becoming far more popular than it has been. It not only gives more pleasure, but it costs less. We saw a statement in an English paper recently, that the mass of geraniums and other bedding plants for masses, ribbons, and so on, raised by one of the famous English gardeners for his own grounds, would, if put into the market at the regular florists' rates, bring \$10,000. The massing system has its merits—no place can be made "up to the time" without a little of it. But the cultivation of flowers as such, should not be wholly sacrificed for them.

The seedsmen complain that there are not as many novelties to offer this, as in former years, but there are, at any rate, many which have been introduced in former years which are not yet widely known, and which have had little testing with us; so that we need not rely wholly on their foreign behavior as we generally have to do with wholly new introductions. Of those which have proved pretty good as annuals are *Aphanostephus ramosissimus*, which has blue flowers something in the way of our greenhouse Cinerarias. Some of our North American Columbines and Delphiniums, although not quite annuals, may be treated as such, and are very beautiful; and of this biennial class, *Armeria splendens* has been found a good thing to have; and we may add to this that beautiful native plant which ought to have been introduced into culture long ago, the pretty orange-flowered *Asclepias tuberosa*. Rather coarse in growth, but still handsome is the *Bidens atrosanguinea*, or Crimson Star Marigold; while for very handsome foliage, and flowers not quite equal to Pampas grass in striking effect, is *Bocconia japonica*. All the *Browallias* do very well in our borders: and the peculiar color of the *Callirhoes* always makes them welcome. *Cannas* all have striking effects by their foliage, and as they are not grown for their flowers so much, it is no objection that they do not generally flower the first year from seed. *Clianthus Dampieri* is, perhaps,

the most striking of all the beautiful introductions of the past few years, although some of the improved Chinese Pinks are not far behind. *Eucharidium grandiflorum*, though much like an old Clarkii, has a free habit of growth, and a good, deep rosy color,—and the Godetia, or *Enothera Whitneyi* of last year, came up pretty well to the idea of a popular favorite. For a pretty white and green variegated plant, the *Euphorbia variegata*, as we saw it last summer on the Western plains, is well worth sowing; and this reminds us also to say a good word for the improved *Gaillardias*, as the original *G. picta* stood the burning sun of the southwestern plains fully equal to anything we saw there. The *Gilias* bloom well and look pretty for a time, but they die out early in the season. *Humea elegans* is a grand thing if it can be sown the year previous to flowering, and the plants kept over. In *Mignonette* the Parson's White has attracted much attention from its not being white, or much different in color from the old one; but it is certainly of a better habit, and a desirable variety. The new *Pentstemons* sometimes flower the first season; but they do not seem to admire the hottest places on our grounds. In the Drummond Phloxes, always popular, there are now nearly as many colors as in Verbenas; and the same is true of *Portulaccas*, which, from their only doing well in hot, sunny places, fill a place in our garden work, nothing else will do so well. The Castor Oil Plants—*Ricinus*—has given us so many nice forms of leaves that we can scarcely do without it, though a few years ago, when there was but the one, it was considered too common to grow. There are other things which have done pretty well; but these have proved of almost universal adaptation to our ground.

Having by the aid of these suggestions, our back numbers, and the seedsmen's catalogues, got together our set of seeds, suppose we take our friends to the garden and give them a practical lesson in sowing.

The day is warm, and the surface soil just dry enough to powder when struck with the back of the trowel. We should not ask their company otherwise, for when the soil is sticky it won't do to sow seed. The ground has been dry several days before. The surface is now powdered and about the thickness of the trowel blade scraped off. The seed is then sown, the soil drawn back and beat firmly down on the seed. You see how near the top we sowed the seed, and how firmly we beat the soil over it, and we spoke about a "first principle." This principle is this:—Seeds want moisture to make them grow, but they must also have air—one is an evil without the other. If deep they get only water, in which case they rot. If entirely on the surface they

get only air, and then they dry up. "But, Mr. Hintsman, why beat the soil so firm?" Another principle, dear lady, lies there. Large spaces in soil enable the earth to dry out rapidly; small spaces, on the other hand, hold water. Crushing earth, when dry, gives it these small spaces; or as gardeners call it, makes it porous, and thus you see we have set our seeds where they will be near the air, and fixed them so that they shall be regularly moist.

If flowers have been growing in the ground for many years, new soil does wonders. Rich manure makes flowers grow, but they do not always flower well with vigorous growth. If new soil cannot be had, a wheel-barrow of manure to to about every fifty square feet will be enough. If the garden earth looks gray or yellow, rotten leaves—quite rotten leaves—will improve it. If heavy, add sand. If very sandy, add salt—about half a pint to fifty square feet. If very black or rich from previous years' manurings, use a little lime, about a pint, slacked, to fifty square feet.

If the garden be full of hardy perennial flowers, do not dig it, but use a fork, and that not deeply.

Dig garden soil only when the ground is warm and dry. Do not be in a hurry, or you may get behind. When a clot of earth will crush to powder when you tread on it, it is time to dig—not before.

If perennial plants have stood three years in one place, separate the stools, replacing one-third, and give the balance to your neighbor who has none.

While caring for the flowers, forget not the lawn—that great charm—without which a garden is not worthy of the name.

Our readers all know that the soil should be made as deep as possible, because a deep soil is generally a reservoir of moisture, from which is replaced the waste from the drying surface, under the summer heats, and thus the grass is kept from burning out. But this is not all. Lawns soon become impoverished by exhaustion of the soil, and by continual mowing.—and this has to be provided for. Mowing machines particularly injure lawns, by their very close and continuous cutting. But this must not be an argument against the machines. We cannot do without them. One should be on every lawn of any extent. But we must in some way provide a counter advantage to check the weakening influence which they undoubtedly exert. One of the troubles of close mowing is that the grass is so weakened in vitality that little, low, vile weeds soon advance their forces, and choke out the grass. Allowing the grass to grow up without mowing for a year will give renewed vigor to the grass, and be death to the little pests; but in a year or two the old soil will be as bad as

over, and it is doubtful whether the advantages of the plan compensates for the untidiness. It is perhaps better to follow the suggestions of Mr. Sargent and others in our last and previous volumes, to set the machine so as not to cut so low as we did on the first introduction of mowing machines, where it has not been done.

Pruno shrubs, roses and vines. Those which flower from young wood, cut in severely to make new growth vigorous. Tea, China, Bourbon and Noisette roses are of this class. What are called annual flowering roses, as Prairie Queen, and so on, require much of last year's wood to make a good show of flowers. Hence, with these, thin out weak wood, and leave all the stronger.

To make handsome, shapely specimens of shrubs, cut them now into the forms you want, and keep them so, by pulling out all shoots that grow stronger than the others during the summer season.

The rule for pruning at transplanting is to cut in proportion to apparent injury to roots. If not much worse for removal, cut but little of the top away. Properly pruned, a good gardener will not have the worst case of a badly dug tree to die under his hands. In nursery, where those matters are well understood, trees "never die."

Box edgings lay well now. Make the ground firm and level; plant deep, with tops not more than two inches above ground.

Roll the grass well before the softness of a thaw goes away. It makes all smooth and level.

Graft trees or shrubs where changed sorts are desirable. Any body can graft. Cleft Grafting is the easiest. Split the stock, cut the scion like a wedge, insert in the split, so that the bark of the stock and scion meets; tie a little bast bark around it, and cover with Trowbridge's Grafting Wax, and all is done; very simple when it is understood, and not hard to understand.

Hyacinths, Tulips, Lilliums, and other hardy bulbs set out in the fall, and covered through the winter, should be occasionally examined, and when they show signs of active growth, must be uncovered; in this latitude this is not safe until towards the end of the month.

The improvements that the last few years have made in the Hollyhocks have rendered them very popular for ornamenting shrubbery borders, to which they add very great interest, and are peculiarly appropriate. They may be transplanted quite early in the season, and flower the more freely for it. They are propagated by dividing the roots in the spring, or by seeds sown as soon as ripe in the summer. The choice kinds are increased by eyes made by cutting up the flower stems. These are struck in a gentle bottom heat.

And now, having taken a look at our flower-beds, and lawns, and trees, and shrubs, do not forget the walks and roads, which, however well kept the other parts of a garden may be, are often neglected. Nothing is so disgusting to a tasteful mind as a slovenly path.

Walks and roads are not used as much to add mere embellishment as in Europe. They are costly to make and keep in order. In American gardening they are only employed where absolutely necessary, and then turned and twisted as little as may beautify, without losing sight of their necessary duties. Old tan bark makes a cool and delightful walk under the shade of trees. It must be laid on a dry bottom, or it becomes very unpleasant in wet weather. Slag from furnaces, ground up with ashes, is the very best material for garden walks, and the color is far more agreeable in hot weather than gravel. Notwithstanding its dark color, it is not so hot, and it does not pack quite so hard as the regular road material. Sand, on the other hand, though it does not pack at all, is very hot, on account of the very hard nature of its particles.

ALFRED SAUNDERS, Practical Seedsmen, &c., 170 Argyle Street, Halifax, has on hand and offers at lowest cash prices—200 bushels heavy Canadian Timothy; 100 bushels Nova Scotian do.; 2 tons Northern Red Clovers, Alsike Clover, White Clover and Sanfoin; 40 bushels Halletts Pedigree Barley; 20 bushels Carters Champion, East Lothian and other Sweetish Turnips; 100 bushels Bresses Prolific Potatoes; 100 bushels Early Rose do., with a good general assortment of Farm, Garden and Flower Seeds. Agricultural Societies liberally dealt with. Catalogues on application. Goods forwarded to all parts with dispatch. Flower and small garden seeds post free.

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HALIFAX TESTIMONIALS.

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P. P. ARCHIBALD, B. R., C. Market.
GEO. FRASER, Agent N. B. C. F. Co.

HALIFAX, 6th April, 1872.

Sir,—Having tried the Nutritious Condiment, for which you are Agent, on

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Yours respectfully.

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HENRY BURRELL.

Yarmouth, March 14th, 1872.

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