

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
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- 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
- 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.

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Continuous pagination/
Pagination continue
- Includes index(es)/
Comprend un (des) index

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

- Title page of issue/
Page de titre de la livraison
- Caption of issue/
Titre de départ de la livraison
- Masthead/
Générique (périodiques) de la livraison

- Additional comments: / There are some creases in the middle of pages.
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

AGRICULTURAL JOURNAL,

AND

TRANSACTIONS

OF THE

Lower Canada Agricultural Society.

VOL. 5.

MONTREAL, MARCH, 1852.

No. 3.

AGRICULTURAL EDUCATION AND MODEL FARMS.

The establishment of these institutions occupies public attention to a considerable degree at the present moment, and it is probable some action will be taken in the matter in the next Session of the Legislature. As these institutions would probably have a very great influence on the future progress of the country, the most serious consideration of the Legislature is necessary to fix upon a judicious plan for their government. We may presume that we should be able to submit very good Rules and Regulations for them, and so might many other parties, but all such plans require the serious consideration of the representatives of the people, assembled in Parliament, from all sections of the Province. When various plans are proposed, it may be possible to make one *approaching* to perfection from the whole. We say "approaching to perfection," because it is only after the system has been in full operation for some time that its defects will be discovered, and the improvement that may be necessary suggested. However anxious, therefore, we should be to have Agricultural Schools and Model Farms established in every Parish in Lower Canada, we would beg to suggest that the experiment should first be made by establishing one at Montreal and Quebec, or at most, one in each District of Lower Canada. We should then see how they succeeded, and we would have young men trained at these places to undertake the superintendence of other establishments. Of course there cannot be any objection that municipalities or private individuals should

establish these institutions where they choose to do so, but through Government aid, it would be prudent to confine them to one in each District at the most, until *practical experience had been obtained in Canada*. In any plan that may be adopted, care should be taken that Agricultural Schools and Model Farms should be so situated, that the pupils will have no difficulty in attending their respective places of worship on Sundays and Holy days. These Schools cannot be confined to pupils of any particular church, but should be open to all persuasions. It would not be possible to provide Chaplains to attend the Schools, to officiate for each distinct sect, and, therefore, all that can be done is to have the experimental Schools so situated, that the pupils may respectively attend their own churches on Sundays, and may be compelled to do so by the superintendents of the Schools. No parent would wish to have his sons placed in a position that they would be shut out from their own religious worship, and they must be so if sent to a School that will be at an inconvenient distance from the churches to which they belong. It would also be desirable that these institutions should be of easy access to the parents or guardians of the pupils as well as to visitors who would come for information to these establishments. We did propose to submit in the present number a plan for Agricultural Schools, but shall defer it until our next. With District Agricultural Schools and Model Farms, Agricultural Catechisms and ~~Class~~ Books might be introduced into all the country Schools to give lads some idea of good husbandry. It is the opinion of many that these institutions

would be a very expensive machinery to provide for teaching the science and practice of agriculture; but those who think so, forget how much has been appropriated annually for many years past, for teaching other arts and sciences, that are not of anything like so much importance to the population of Canada, as that of Agriculture. The time is come, we hope, that justice will be done to this important branch of industry, and we trust that nothing will be left undone that would be calculated to promote its improvement, and secure its prosperity. No doubt there are many excellent farmers in the country capable of giving the best instruction in the practical art of agriculture, but are they prepared to come forward and do so, to the extent that is required to meet the wants of the country, and if they were, would they make it less expensive, and more complete to those to whom they would impart instruction, than they could obtain it at Agricultural Schools and Model Farms, under judicious regulations, and competent superintendence? We feel almost convinced that they would not. There are other grave objections to sending young men to farmers' houses for instruction, that could not be got over. There are not many of the French Canadian population that would consent to send their sons to farmers of British origin, and of different Religion from themselves, but this objection out of the question, how was youth to be instructed in other branches of education at a farmer's house? If agricultural education, and instruction in the science and practice of agriculture, are to be made accessible to those who may desire to become agriculturists, there is no means of doing so in this country, except by the establishment of public institutions for that purpose. It is quite a different matter to send a young man to be educated for the church, law, medicine, or as a merchant, to that of education as a practical farmer. There is ample opportunity for acquiring a practical knowledge of all these professions, except that of the farmer, without any difficulty; but for the farmer, if he cannot be instructed in his father's house,

how is he to obtain it? As we before remarked, there are unsurmountable objections to sending them to farmers here for instruction. Farmers who would be the best qualified to have young men put under their charge, might not be disposed to receive them, or incur the responsibility. Others might take them for sake of their work, and with that object alone, and would not be likely to pay much attention to anything else, except to see that they did work. We submit it, to those who would have young men to be instructed in the practice of husbandry, which mode of instruction would they prefer, that at Agricultural Schools and Model Farms, or in the establishment of a country farmer.

HEMP.

The following essay on the culture of hemp was originally published in the *Western Agriculturist*. It is a complete treatise on the best manner of raising and preparing an article which always commands cash sufficient to reward liberally the cultivator who proceeds correctly in obtaining this valuable product. The author of the essay is not less favorably known as a statesman than as a practical and scientific agriculturist, and the signature of Henry Clay will give it that weight and currency with American farmers which is due to its intrinsic excellence.

Sir,—Having promised you some account of the method of cultivating and preparing hemp in this State, I now proceed to redeem it; I shall endeavor to describe the general practice of the cultivators, without noticing all the deviations of particular individuals.

The district of country, in which the plant is most extensively cultivated, is the Elkhorn region, around and near Lexington, which derives its name from a stream discharging itself into the Kentucky river, whose branches are supposed to resemble the horns of the Elk. It is also produced in considerable quantities in the counties of Jefferson, Shelby, Mercer, Madison, Clarke, Bourbon, and Mason. The soil of that region is a rich, deep, vegetable loam, free from sand and with but little grit. It lies on a bed of clay, interspersed with small fragments of iron ore, and this clay in its turn reposes on a mass of limestone lying many feet in depth in horizontal strata. The surface of the country is generally undulating. The rich land (and there is but little that is not rich) in this whole region is well adapted to the growth of hemp, where it has not been too much exhausted by injurious tillage. The lands which produce it best are those which are fresh, or which have lain some time in grass of clover. Manuring is not much practised

yet. Clover is used in lieu of it. Lands which remain in clover four or five years without being too constantly and closely grazed, recover their virgin fertility. The character of the soil in the other counties above mentioned, does not vary materially from that in the Elkhorn district.

The preparation of the ground for sowing the seed is by the plough and horses, until the clods are sufficiently pulverized or dissolved, and the surface of the field is rendered even and smooth. It should be as carefully prepared as it were for flax. This most important point, too often neglected, cannot be attended to too much. Scarcely any other crop better rewards diligence and careful husbandry. Fall or winter ploughing is practised with advantage; it is indispensable in old meadows, or old pasture grounds intended for producing hemp.

Plants for seed are ordinarily reared in a place distinct from that in which they are cultivated for the lint. In this respect, the usage is different from that which is understood to prevail in Europe. The seeds which are intended to reproduce seeds for the crop of the next year, are sowed in drills about four feet apart. When they are grown sufficiently to distinguish between the male and female stalks, the former are pulled and thrown away, and the latter are thinned, leaving the stalks separated seven or eight inches from each other.

This operation is usually performed in the blooming season, when the sexual character of the plants is easily discernible; the male alone blossoming, and, when agitated, throwing off farina, a yellow dust or flour, which falls and colors the ground, or any object that comes in contact with it. A few of the male plants had better be left scattered through the drill, until the farina is completely discharged, for an obvious reason. Between the drills a plough is run sufficiently often to keep the ground free from weeds and grass; and between the stalks in each drill the hoe is employed for the same object. The seed plants are generally cut after the first smart frost, between the 25th September and the middle of October, and carried to a barn or stock yard, where the seeds are easily detached by the common flail. They should be gathered after a slight, but before severe frost; and, as they fall out very easily, it is advisable to haul the plants on a sled, and, if convenient, when they are wet. If transported on a cart or waggon, a sheet should be spread to catch the seeds as they shatter out. After the seeds are separated, the stalks which bore them being too large, coarse and harsh, to produce lint, are usually thrown away; they may be profitably employed in making charcoal for the use of powder-mills. In Europe, where the male and female plants are promiscuously grown together in the same field, both for seeds and for lint, the male stalks are first gathered, and the female suffered to remain growing until the seeds are ripe, when they are also gathered; the seeds secured and lint obtained, after the rotting, from both descriptions.

After the seeds are threshed out, it is advisable to spread them on a floor to cure properly, and prevent their rotting, before they are finally put away for use next spring. Seeds are not generally used unless they were secured the fall previous to their being sown, as it is believed they will not vegetate if older; but it has been ascertained that when they are properly cured and kept dry, they will come up after the first year. It is important to prevent them from heating, which destroys the vegetating property, and for that purpose they should be thinly spread on a sheltered floor.

The seeds, whether to reproduce seeds only, or the lint, are sowed about the same time. Opinions vary as to the best period. It depends a good deal upon the season. The plant is very tender when it first shoots up and is affected by frost. Some have sown as early as the first of April; but it is generally agreed, that all the month of May, and about the 10th of it especially, is the most favorable time.

An experienced and successful hemp grower, in the neighborhood of Lexington, being asked the best time to sow hemp, answered, "immediately before a rain," and undoubtedly it is very fortunate to have a moderate rain directly after sowing.* When the object is to make a crop of hemp, the seeds are sown broadcast. The usual quantity is a bushel and a half to the acre; but here again the farmers differ, some using two bushels, or even two and a half. Much depends on the strength and fertility of the soil, and the care with which it has been prepared, as well as the season. To these causes may be ascribed the diversity of opinion and practice. The ground can only sustain and nourish a certain quantity of plants, and if that limit be passed, the surplus will be smothered in the growth. When the seeds are sown, they are ploughed or harrowed in; ploughing is best in old ground, as it avoids the injurious effect of a beating rain, and the consequent baking of the earth. It would be also beneficial subsequently to roll the ground with a heavy roller.

After the seeds are sown the labors of the cultivator are suspended until the plants are ripe, and in a state to be gathered; every thing in the intermediate time being left to the operations of nature. If the season be favorable until the plants are sufficiently high to shade the ground (which they will do in a few weeks, at six or eight inches height,) there is strong probability of a good crop.

When they attain that height, but few articles sustain the effect of bad seasons better than hemp.

It is generally ripe and ready to be gathered about the middle of August, varying according to the time of sowing. Some sow at different periods, in order that the crop may not all ripen at the same time, and that a press of labor in rearing it may be thus avoided. The maturity of the plant is determined by the evaporation of the farina, already noticed, and the leaves of the plant exhibiting a yellowish hue, it is then generally supposed to be ripe, but it is safest to wait a few days longer. Very little attentive observation will enable any one to judge when it is fully ripe. In that respect it is a very accommodating crop, for if altered a little too soon, the lint is not materially injured, and it will wait the leisure of the farmer some ten days or a fortnight after it is entirely ripe. Two modes of gathering the plants are practised, one by pulling them up by the roots, an easy operation with an able bodied man, and the other by cutting them about two inches (the nearer the better) above the surface of the ground. Each mode has its partisans, and I have pursued both. From a quarter to a third of an acre is a common task of an average laborer, whether the one or the other mode is practised. The objections to pulling are, that the plants with their roots remaining connected with them, are not afterwards so easily handled in the several operations which they must undergo; that all parts of the plants do not rot equally and alike, when exposed

* Would it not be well to soak the seed in water a few hours previous to sowing? We have found this to answer nearly as good a purpose as rain after sowing with all seeds which we have tried it. The vegetation of mangel-wurzel is wonderfully accelerated by it.—Ed. Am. Farmer.

to the dew and rain; and, finally, that before you put them to the brake, when the root should be separated from the stalk, the root drags off with it some of the lint. The objection to cutting is, that you lose two or three inches of the best part of the plant nearest the root. Pulling, being the most ancient method, is most generally practised. I prefer, upon the whole, cutting, and I believe the number who prefer it is yearly increasing. When pulled it is done with the hand, which should be protected by an old leather glove. The laborer catches twenty or thirty plants together with both hands, and with a sudden jerk draws them without much difficulty. The operation of cutting is performed with a knife, often made out of an old scythe, resembling a sickle, though not so long but broader. This knife is applied much in the same way as the sickle, except that the laborer stoops more.

Whether pulled or cut, the plants are carefully laid on the ground, the easier the better, to cure, which they do in two or three days, in dry weather. A light rain falling on them whilst lying down is by some thought to be beneficial, inasmuch as the leaves, of which they should be deprived, may be easier shaken off or detached. When cured, the plants are set up in the field, in which they were produced, in shocks of convenient size, the roots or but ends resting on the ground, and the tops united by a band made of the plants themselves. Previous to putting them up in shocks, most cultivators tie the plants in small hand bundles of such a size that each can conveniently be held in one hand. Before the shocks are formed, the leaves of the plants should be rapidly knocked off with a rough paddle or hooked stick. Some suffer the plants to remain in these shocks until the plants are spread down to be rotted. Others, again, collect the shocks together as soon as they can command leisure, (and it is clearly best,) and form them into stacks to remain over a whole year, before the plants are exposed to be rotted. I have frequently done it with advantage, and have at this time two crops in stalks. By remaining that period in stalks, the plants go through a sweat, or some other process, that improves very much the appearance, and, I believe, the quality of the lint, and this improvement fully compensates the loss of time in bringing it to market. The lint has a soft texture and a lively hue, resembling water rotted hemp; and I once sold a box of it in Baltimore market at the price of Russia. In every other respect the plants are treated as if they were not kept over a year.

The method of dew rotting is that which is generally practised in Kentucky. The lint so spread, is not so good for many purposes, and especially for rigging and ships, as when the plants have been rotted by immersion in water, or, as it is generally termed, water rotted. The greater value, and, consequently, higher price of the article prepared in the latter way, has induced more and more of our farmers every year to adopt it; and if that prejudice were subdued, which every American production unfortunately encounters when it is first introduced, and comes in contact with a rival European commodity, I think it probable, that in a few years we should be able to dispense altogether with foreign hemp. The obstacles which prevent the general practice of water rotting are the want of water at the best season for the operation, which is the month of September; a repugnance to the change of an old habit, and a persuasion, which has some foundation, that handling the plants after their submersion in water during that month is injurious to health. The first and last of

these obstacles would be removed by water rotting early in the winter, or in the spring. The only difference in the operation performed at those seasons, and in the month of September, would be, that the plants would have to remain longer in soak before they were sufficiently rotted. The plants are usually spread down to be dew rotted from the middle of October to the middle of December. A farmer who has a large crop on hand, puts them down at different times, for his convenience in handling and dressing them. Autumnal rotting is more apt to give the lint a dark and unsightly color than winter rotting. The best ground to expose the plants upon is meadow or grass land, but they are not unfrequently spread over the same field on which they grow. The length of time they ought to remain exposed, depends upon the degree of moisture and the temperature of the weather that prevail. In a very wet and warm spell, five or six weeks may be long enough. Whether they have been sufficiently rotted or not, is determined by experiment. A handful is taken and broken by the hand, or applied to the brake, when it can easily be ascertained, by the facility with which the lint can be detached from the stalk, if it be properly rotted. If the plants remain on the ground too long, the fibres lose some of their strength, though a few days longer than necessary, in cold weather, will not do any injury. If they are taken up too soon, that is, before the lint can be easily separated from the woody part of the stalk, it is harsh, and the process of breaking is difficult and troublesome. Snow rotting, that is, when the plants being spread out remain long enough to rot, (which, however, requires a greater length of time,) bleaches the lint, improves the quality, and makes it nearly as valuable as if it had been water rotted.

After the operation of rotting is performed, the plants are again collected together, put into shocks or stacks, or, which is still better, put under a shed or some covering. When it is designed to break and dress them immediately, they are frequently set up against some neighboring fence. The best period for breaking and dressing is in the months of February and March, and the best sort of weather, frosty nights and clear thawing days. The brake cannot be used advantageously in wet or moist. It is almost invariably used in this state out of doors, and without any cover; and to assist its operations, the laborer often makes a large fire near it, which serves the double purpose of drying the plants and warming himself. It could not be used in damp weather in a house without a kiln, or some other means of drying the stalks. The brake in general use, is the same hand brake which was originally introduced, and has been always employed here, resembling, though longer than, the common flax brake. It is so well known, as to render a particular description of it, perhaps, unnecessary. It is a rough contrivance, set upon four legs, about two and a half feet high. The brake consists of two jaws, with slits on each, the lower jaw fixed and immovable, and the upper one movable, so that it may be lifted by means of a handle inserted into a head or block at the front end of it. The lower jaw has three slats or teeth, made of tough white oak, and the upper two arranged approaching to about two inches in front, and in such a manner that the slats of the upper jaw play between those of the lower. These slats are about six or seven feet in length, six inches in depth, and about two inches in thickness in their lower edges; they are placed edge wise, rounded a little on their upper edges, which are sharper than those below. The

laborer takes his stand by the side of the brake, and grasping in his left hand as many of the stalks as he can conveniently hold, with his right hand he seizes the handle in the head of the upper jaw, which he lifts, and throwing the handful of stalks between the jaws, repeatedly strikes them, by lifting and throwing down the upper jaw. These successive strokes break the woody or reedy part of the stalks into small pieces or shoves, which fall off during the process. He assists their disengagement by striking a handful against a stake, or with a small wooden paddle, until the lint or bark is entirely clean, and completely separated from the woolly particles.

After the above operation is performed, the hemp may be scutched, to soften it, and to strengthen the threads. That process, however, is not thought to be profitable, and is not therefore generally performed by the grower, but is left to the manufacturer, as well as that of beating and hackling it. Scutching is done by the laborer, taking in his left hand a handful of lint, and grasping it firmly, then laying the middle of it upon a semicircle notch of a perpendicular board of the scutching frame, and striking with the edge of the scutch that part of the lint which hangs down on the board. After giving it repeated strokes, he shakes the handful of lint, replaces it on a notch, and continues to strike and turn all parts of it, until it is sufficiently cleansed, and the fibres appear to be even and straight.

The usual daily task of an able bodied hand at the brake is eighty pounds' weight; but there is a great difference, not only in the state of the weather and the condition of the stalks produced by the greater or less degree in which they have been rotted, but in the dexterity with which the brake is employed. Some hands have been known to break from one hundred and fifty to two hundred pounds per day. The laborer ties up in one common bundle the work of one day, and in this state it is taken to market and sold. From what has been mentioned, it may be inferred, as the fact is, that the hemp of some growers is in a much better condition than that of others. When it has been carelessly handed, or not sufficiently cleansed, a deduction is made from the price by the purchaser. It is chiefly bought in our Villages, and manufactured into cotton, bagging, bales, and other kinds of untarred cordage. The price is not uniform. The extremes have been as high as eight, and as low as three dollars. The most general price during a term of many years, has been from four to five dollars. At five dollars it compensates well the labor of the grower, and is considered more profitable than any thing else the farmer has cultivated. The most heavy labor in the culture of hemp is pulling or cutting it when ripe, and breaking it when rotted. This labor can easily be performed by men. Various attempts have been made to improve the process of breaking, which is the severest work in the preparation of hemp. A newly invented machine was erected for that purpose on my farm six or eight years ago, to dress hemp by dispensing with rotting altogether, similar in structure to one which was exhibited about the same time at Columbus, during the sitting of the Ohio Legislature. It was worked by horse power, and detached the lint tolerably well, producing a very fine looking article, equalling in appearance Russia hemp. A ton of it was sold to the Navy Department, which was manufactured into rigging for the ship of the line, the North Carolina, prior to her making a voyage of three years in the Mediterranean. Upon her return, the cordage was examined and analyzed; and although

its exterior looked very well, it was found on opening it to be decayed and affected somewhat like the dry rot in wood. I considered the experiment decisive, and I now believe that the process of water or dew rotting is absolutely necessary, either before or after the hemp has been to the brake. There is a sappy or glutinous property of which it should be divested, and that is the only process that has been hitherto generally and successfully employed to divest it. An ingenious and enterprising gentleman in the neighborhood of Lexington has been, ever since the erection of the above mentioned machine, trying various experiments, by altering and improving it, to produce one more perfect, which might be beneficially employed on rotted hemp, to diminish the labors of the brake. He mentioned the other day that all of them had failed, that he had returned to the old hand brake, and that he saw that it answered the purpose better than any substitute with which he was acquainted. I observe Mr. H. L. Barnum has recently advertised a machine which he has constructed for breaking and dressing hemp and flax, which can be procured at the establishment of Mr. Smith, Cincinnati. I most cordially wish him success; but the number of failures which I have witnessed during a period of thirty years, in the attempt to supersede manual labor by the substitution of that of machines, induces me to fear that it will be long before this desideratum is attained.

The quantity of net-hemp produced to the acre, is from six hundred to one thousand weight, varying according to the fertility and preparation of the soil and the state of the season. It is said that the quantity which any field will produce, may be anticipated by the average heights of the plants throughout the field. Thus, if the plants will average eight feet in height, the acre will yield eight hundred weight of hemp; each foot in height corresponding to a hundred weight of the lint.

Hemp exhausts the soil slowly, if at all. An old and successful cultivator told me that he had taken thirteen or fourteen crops from the same field, and that the last was the best. That was probably, however, owing to a concurrence of favorable circumstances. Nothing cleanses and prepares the earth better for other crops, (especially for small grain or grapes,) than hemp. It eradicates all the weeds, and when it is taken off, leaves the field not only clean, but smooth and even.

The rich lands of Ohio, Indiana, Illinois, are, I have no doubt, generally well adapted to the cultivation of this valuable plant; and those States enjoy some advantages for the cultivation of it which this does not possess. Their streams do not dry up as much as ours, and they consequently employ better than we can the agency of water in the preparation of it. Their projected canals, when completed, will admit of its being carried to the Atlantic Capitals at less expense in the transportation, than we can send it. On the other hand, the unfortunate state of slavery among us, gives us at present, probably, a more certain command of labor than those states have.

AGRICULTURAL MINISTER.

We give insertion to the letter of "A Farmer," who expresses his "surprise to see us snub the notice of the appointment of an agricultural minister, on the ground that it was merely a political subject." We can

assure "A Farmer," that it was not from any indifference to the appointment in question that we declined giving insertion to the Communication addressed to us, but from its decidedly political and personal character. We have for a long time advocated the establishment of a government department of agriculture, as already established in France, and recommended in the United States by the President. We have ever been of opinion that agriculture did not receive due attention from the government and legislature, or perhaps we should say, there was not as much done to promote its improvement and prosperity as should be, and ought to be, as the first and most important interest in this country. We may be mistaken in our views, but "A Farmer," we hope, will do us the justice to believe our sincere devotion to the cause of agriculture, and that it is our most anxious desire to see it in an improving and prosperous condition, and in that honorable position it is intended to occupy.

To the Editor of the Agricultural Journal.

Sir,—I was surprised to see you snub the notice of the appointment of an Agricultural Minister on the ground that it was merely a political subject: whether or not, the new department was created to further political ends, is no business of ours; we are to consider how it will be likely to benefit us, and I think the farming community hail it as a boon, and as significant that the government feel the importance of agriculture in a country like this; they feel that they are now recognized, and will consequently be stimulated to greater exertions; they also feel that they have now some one at Head Quarters to look after their interests, and to whom they can at all times appeal.

If the tariff is being altered, will it not be the duty of the Agricultural Minister to receive information from the Agricultural Societies, touching their interests therein? And I hope the Societies will not be backward in making known their wishes. Will it not farther be his duty to extend the government of patronage for promoting the manufacture of agricultural produce, as wool, flax, &c.? Will it not also be his duty to have our municipal laws made more effectual, that roads, bridges, &c., may be improved, or if the municipalities will do nothing, to take other

means that these primary and vital improvements in a farming country may be carried out?

The benefits this office may effect, are incalculable, and, as a farmer, I thank the government for it, only hoping to see it some day filled by a farmer.

Again, I hope the Societies will keep the Minister *au courant* of Agricultural intelligence.
16th February, 1852. A FARMER.

We beg particular attention to the Communication of Agricole in this number. We perfectly concur with him in every line of his letter, and feel pride in publishing so able a document upon the interesting subjects to which it refers. It is not necessary that we should submit any further remarks, as our respected Correspondent has executed his task so admirably. We hope he will often favor us with his ideas on Agricultural subjects.

To the Editor of the Agricultural Journal.

SIR,—In presuming to express any opinions on the proceedings of Agricultural Societies in general, and of some of those of Lower Canada in particular, I shall probably incur more censure than commendation from a certain class of speculators; nevertheless, if my ideas seem worthy of a place in your Journal, I will venture to give them publicity.

It has always appeared to me, that the principal object of an Agricultural Society should be to assist, as well to instruct, the incompetent cultivator of the soil in the management of his land, and that, as incompetence mostly originates in ignorance, and ignorance in poverty, it should be the poorer tiller of the earth towards whom the especial attention of an Agricultural Society should be directed. But is the unsuccessful agriculturalist the person much encouraged to improve either himself or his farm by means of the Agricultural Societies which are at present in action? Both in the Old World and the New it is clear, from the lists of prizes and awards that the rich, or at any rate the comparatively rich farmer, is the party for whom Agricultural Societies have been chiefly formed, and the cultivator in narrow circumstances is left to look at their transactions, as much as he would at a feast towards which he may contribute if he likes, but of which he will not be allowed to partake.

It is certainly highly desirable that fine animals should be multiplied and dispersed through-

out every country ; but with land in such a state of neglect, to say nothing else, as that of Lower Canada, it is my humble opinion that the first and most important object is to render the soil capable of supporting the superior breeds it is wished to introduce. Instead of expending the funds of an Agricultural Society in giving premiums to those who can exhibit a faultless horse, an unrivalled bull, or a model ram, I conceive that it would be far better if the Members, capable of bringing such animals to the exhibition, would content themselves with an honorary certificate declaring the pre-eminence of their animals, while the money prizes should be allotted to superiority in these pursuits, which may be more especially styled Agricultural. A man in favor with fortune should not want the stimulus of a certain number of dollars, as a gift, to make him seek to improve his own stock or that of his neighbours. If patriotism and philanthropy, and other refined feelings are his real sentiments, he should be happy to contribute his subscription towards a fund for giving rewards to whom a small amount of money would be a temptation to forsake bad ways of cultivating the earth, and acquire better. Indeed, in order to introduce improved farming implements, or even improved breeds of animals, the prizes might consist of these things, instead of cash, and in lieu of a new show, chiefly of animals bought (not bred) for the purpose, held annually as a proof of the wonderful benefits bestowed upon a country by an Agricultural Society, these should be inspections of the lands of competitors, both before sowing, and while under crop, and trials of their skill in ploughing, sowing, harrowing, and harvesting, and any other performances agreed upon by the Members. Rewards should be offered for the best made drains and ditches, and the greatest quantity of them on farms of specified sizes ; for the best kept farm-yards and buildings ; for the largest amount of fruit trees planted, and gardens neatly cultivated ; for the greatest quantity of lands laid down in pasture, by sowing grass seeds, and not by leaving stubble fields to clothe themselves with grass, as best they may ; for good conduct and length of service in one situation, and for several other qualifications both in masters and men, which will easily suggest themselves to practical Agriculturalists.

It affords little inducement to a man, whose purse is rather light, to squeeze out of it a dollar or two, as his subscription to an Agricultural

Society, when he is pretty certain that his money will go to augment the prize, which a much richer member is sure to win, by exhibiting an animal such as he himself can never hope to possess. In the several Agricultural Societies as conducted, they are but clubs for the organization of a kind of lottery, in which the best, or supposed best, animals are the tickets that gain the prizes. Or, taken in another light, they enable a man with money to purchase a superior animal at a low rate, by granting him a prize for it, which is so much of the price of the animal returned to his pocket ; and this return, too, is made out of the pockets of the poor members, who are unable themselves to procure objects deserving of equal prizes, and are thus certain of having very little, if any, direct advantage from belonging to an Agricultural Society. Allow me, Sir, to repeat, that prizes of intrinsic value ought to be confined to those whose means will not allow them to procure good animals, and good agricultural instruments, and that persons in easy circumstances should be satisfied with having a duly certified testimonial, that they have exhibited objects of live, or dead, stock worthy of praise and emulation.

It may be asked, how is it to be ascertained that a man is so poor as to be fairly entitled to strive for a prize, or so rich as to be above the condition for obtaining one. In reply, I would say that the best criteria to judge by, would be his doing his own work on his farm, and not being able to live without working himself. Hence I would give the best prizes to ploughmen, mowers, ditchers, threshers, and other agricultural operators, who need fear no rivals among the *gentlemen* farmers. It is these operators, who, by their strength and skill, must, after all, really improve the soil if ever it is to be done ; and it is the interest, as it ought to be the pleasure of the wealthier cultivator, to form a better class of farming men to till his land. When the soil is restored to a thoroughly productive state ; when crops of all kinds are abundant, from the amelioration of the soil by draining, fallowing, pulverization, and rotation, and when comparative affluence and comfort have resulted from increased production, then will be the time to make the finest breeds of animals objects of importance. Without better summer and winter feeding, than the greatest part of Canadian live stock obtain at present, superior breeds of animals can never become general in this country. What is called

pasture land (*parc*) in Lower Canada is, for the most part, a mere mockery of herbage, a half bare waste on which cattle, sheep, and horses contrive to exist; and in winter the ill-furnished barn doles out its straw and peas haulm with, now and then, a relish of hay to the starvelings of the barn-yard. Agricultural Societies, with perhaps the best intentions in the world, have begun their work, particularly in this country, at the wrong end, and are eager to increase the number of mouths on the land, and these, too, dainty ones, without thinking of providing an increase both in the quantity and quality of the provender they will require. They are anxious to have what will be the natural result of good agriculture, namely, superior stock, without waiting till the land is in a condition to support it, and if they go on thus, seeking to anticipate consequences, without providing the necessary antecedents, they will only be realizing the fable of endeavoring to fill a sieve.

One of the highest objects of an Agricultural Society ought to be the establishment of a Model Farm in its own district, and under its own immediate control. Only fifty, or a hundred, acres of well fenced, well drained, well arranged, and well cropped land, as a Model Farm, in every county, would be an example of infinite benefit to its neighborhood, and would be no very difficult thing either to procure or to manage if the Members of an Agricultural Society of practical men were in earnest. It would not be necessary to go to any great expense to put a farm in productive and remunerative order. If fifty or a hundred members, men good and true, agreed among themselves to undertake an acre or two apiece, by dividing their whole number into classes or sections, and cultivating together five, ten, or twenty acres, for the growth of any particular crop, making use of the most approved methods of preparing, sowing, weeding and clearing the land, it would soon be seen whether the soil of Lower Canada can be made fairly remunerative or not. But to ascertain this point conclusively, nothing like indifference, or neglect, or caprice, or selfishness, must, at any time, influence the several parties: Those who did not choose to work themselves, must employ substitutes, and an acknowledged good agriculturalist, from among their number, should be elected as the head of the whole, and implicitly obeyed. This plan of working a small Model Farm, by a kind of Joint Stock Company of

operative farmers, might be greatly developed; but I have already trespassed too long on your patience and your pages, and will therefore only mention one suggestion more.

Would it not be a useful outlay of the funds of an Agricultural Society, if purchases were made of agricultural machines, too expensive for the pockets of small farmers, such as cultivators or grubbers, draining ploughs, drill machines of various kinds, &c., &c., to be lent to the Members of the Society by rotation, and on condition of their being returned in good order? More than one depot for such machines might be made in each country, and the use of them would create a desire for the possession of them, which, with the profit derived from them, would lead to their being bought by individuals for their own exclusive service. At present, most of the improved machines and implements used in modern agriculture are unknown to the majority of Canadian farmers; but by seeing them employed, and observing the advantages derived from them, they would naturally acquire the wish to share in their benefits. I have never remarked in the Lower Canadians with whom I have come in contact, any inferiority to the people of other countries, and I presume that they only want the means and encouragement to become as enlightened and prosperous as any other race of mankind.

Allow me to be,

Sir,

Your sincere well wisher,

AGRICOLA.

12th February, 1852.

We insert the letter of our friend, Mr. Davidson, of Quebec, and hope our readers will not suspect us of having anything to do with it, previous to our receiving it through the Post Office. Mr. Davidson is a subscriber to the Journal, and appears to have adopted the same views that we have often expressed. This circumstance affords us great satisfaction that other agriculturists agree with us on many subjects advocated in this Journal. County Agricultural Societies are in a position to be the practical laborers, in promoting Agricultural improvement, and any remarks we have ever submitted in reference to them, was only with a view of attracting their attention to the

consideration of measures that might be most conducive to the accomplishment of *general* Agricultural improvement, particularly where improvement was most required. "The healthy need not the physician, but those that are sick," is a saying that will justly apply in this matter.

To the Editor of the Agricultural Journal.

Sir,—Your Journal is ever open to receive and give information on all subjects that will contribute to the prosperity of Canadian Agriculture. My attention was drawn to an article in the January number of this Journal, headed "Agricultural Publications," showing forth the very limited circulation of this Journal; taking into consideration the numerous rural population of Canada East. I cannot see the reason why farmers have such an aversion to book farming, when all other trades and professions have their interests advocated through the press. It is a culpable indifference to the real interests and prosperity of their calling. In the British Isles, where the very best systems of husbandry is carried on, and the very best of farming is to be seen, they have their weekly and monthly agricultural periodicals, why not support such publications in a young country like Canada, where so much instruction in farming is required? The farming class of Lower Canada are under a deep debt of gratitude for the great amount of agricultural information they have received from your labors and your able pen for many years, combined now with the action of the "Lower Canada Agricultural Society," which has, I am happy to say, done more for the general advancement of agriculture, than all the County Societies put together. We see farmers contending with farmers at our county shows, trying to obtain as many prizes as they can catch by hook or by crook, but taking no interest in a publication, which has no other object in view but to forward their interests. I humbly conceive that the Committees of several of the County Agricultural Societies, are greatly to blame for not using their influence in extending its circulation into the most remote parts of the country. I consider it would be an excellent plan to have a number of copies of this Journal to distribute to persons who do not obtain prizes at the exhibitions. I have observed the proceedings of the County of "Quebec Agricultural Society" for this many years past, and a great deal of the money has been taken by farmers who have no

need for encouragement in agriculture, and where encouragement was required, it was totally neglected. I consider it a bounden duty on Societies receiving grants of public money, to apply it where improvement is most required. It should not be in this county as in the British Isles, where the whole amount of the funds are subscribed by parties themselves, who can apply it as they think proper. I sincerely hope our County Societies will arouse from their slumber, and apply some of their funds to the support of this Journal.

Your most obedient servant,

MATHEW DAVIDSON.

St. Foy's, County of Quebec, 19th February, 1852.

To the Editor of the Agricultural Journal.

HOME MANUFACTURES.

Sir,—There is no subject of such importance to the Canadian Agriculturists as that of establishing a Home Market for their produce, the ruinously low prices obtained for our grain since the introduction of Free Trade into England, and the certainty of no return to protection for it in that market, ought to convince us of the absolute necessity of exerting ourselves to accomplish this desirable object. It is now evident that if Canada is to prosper under Free Trade principles, it must be by her agriculture and manufactures, and not as some pretend to assert, through the agency of her commerce and carrying trade. The facilities which we possess in Lower Canada for establishing manufactures, render it a much less difficult matter than it is generally believed to be; the steady, sober, industrious, and well conducted habits of our French Canadian population, whose labor can always be obtained for one-third less than that of old countrymen, render them peculiarly adapted for this purpose, with unlimited motive power, and the certainty that flax, hemp and wool, can be produced at very low prices. What great difficulty can there be in manufacturing for ourselves those articles which England and the United States are busily engaged at, *while we are six months of the year idle?* It is vain to tell us that it is the want of capital which prevents us; if we can find it to pay for our enormous imports, which for the last two years amounted to more than double the value of our exports, we can find it for manufactures. If one half of this amount had been employed in establishing

manufactories, the result would have been a *permanent and wholesome* market for every description of our agricultural produce, a healthiness in the money market, and a steady prosperity throughout the land, which we have never yet experienced; the balance of trade would have been as much in our favor as it is against us, money would have been abundant, and every producing interest in a flourishing condition. Such a change, I admit, would materially injure many at present very influential interests, which, however, are in no way connected with the general prosperity of the country, and consequently not to be considered, while it would free us from the periodical mercantile crisis which we have consequent upon the rise and fall of provisions in the English market, and altogether unwarrantable commercial speculation in goods.

To illustrate the advantages which we would derive from the production of the raw material for woollens, we have only to consider that our farmers are at present selling their hay at from 15s. to 17s. 6d. for 100 bundles; many of them have to drive it twenty miles stand in the market one, and frequently two days; pay for tolls, weighing, and their own expenses, so that the amount which they actually carry home must be very trifling, while the waste of time is of very great importance. One hundred bundles of hay with 10s. worth of vegetable food, and salt, will winter four Southdown or Cotswold sheep (both very hardy kinds) from which would be obtained in the spring:

24 lbs. wool at 1s. 3d.,	£1 10
4 lambs at 10s.	2 0
—————	
	£3 10

The labor of feeding the sheep would not be so great as that required to take the hay to market, and there pasturage would be more than compensated for, by the manure for the farm. Thus on a moderate calculation would the farmer receive *three pounds* per 100 bundles for his hay, and be constantly enriching his land, increasing his produce and his stock.

G.

River St. Pierre, 23rd Feb., 1852.

To the Editor of the Agricultural Journal.

SIR.—Your Journal is appreciated by many, and indeed may be considered a valuable acquisition to the Literature of Canada.

The object, viz. :—“the improvement of the system of Agriculture, and the interests of the farming Class” is a glorious one, and for which there is full scope. I was, however, much surprised to learn from the January number that you are so poorly supported, and that the list of subscribers does not reach Three Thousand.

This result is a perfect disgrace to Canada, and explains the reason, why so many of our Farms are worked upon wrong and ignorant principles. If our Farmers are so indifferent to their own Interests as not to embrace such an opportunity of acquiring information regarding their occupation, or so illiterate as not to be able to do so, Canada stands a poor chance of progressing at their hands.

But, Mr. Editor, let us hope that the rising generation will fully understand, that considerable knowledge of farming may be acquired from works devoted to the subject, and by parties exchanging ideas, and imparting to one another the results of experiments—then acknowledging the value of such cheap information as the Agricultural Journal affords, they will support it.

Your Obedient Servant,
I.

Quebec, 10th February, 1852.

To the Editor of the Agricultural Journal.

DEAR SIR.—As Poultry is now in a fair way of making one of the Farmer's best returns if properly looked to, I here offer you a few hints as to the success I have had, these few years past, in rearing, fattening, and caponizing the different breeds which are now kept by the Farmers and Poultry Fancier. As a great deal, I have remarked, has been written in the different Journals, and a variety of opinions has been promulgated as regarding the time the cock has been known to many, I have seen some assert that it has only been known some few hundred years, but of what I have been able to glean from Scripture as well as authentic History, the cock appears to have been known to man from the very earliest period.

Of his origin little appears to be known, and the period or manner of his first introduction into Greece, or Southern Europe, is involved in the greatest obscurity.

He has certainly ever held a prominent posi-

tion; among birds, he occupies a conspicuous place at the schools of the Greeks and Romans, in the days of old, his effigy was engraved, and is still to be seen upon many of their Medals and Coins, and he has been expressly dedicated to several of their favorite deities, as Apollo, Mercury, Mars, and Æsculapius.

The wisest heathen that ever lived, the profoundest philosopher that ever flourished unaided by the light of Christianity, the Great Socrates, forgot himself in his last moments, and suffered the mire of superstitions to tarnish the glorious wreath that wisdom had hung upon his brow, by directing a cock to be sacrificed to Æsculapius.

At a Roman banquet, this bird formed a principal dish, and poultry were even then carefully reared and fattened as well as crammed, nor was the pugnacious disposition of the cock even then unknown, or lost sight of, as a means of amusing man, for cock fighting was seriously entertained and encouraged, as at once a religious and a political ceremony.

The Isles of Rhodes, and Delos, are said to have furnished the fattest Birds for the table, as well as the most enduring and unflinching Champions of the Ancient Cock-pit.

It has been very generally supposed and most commonly asserted, that the domestic cock owes his origin to the Jungle fowl of India; there are, however, two wild cocks in which we find sufficient points of resemblance to our domestic varieties, to insure the purpose of terminating our somewhat unsatisfactory search.

I allude to the Gigantic Birds of St. Jaga and Sumatra, and to the diminutive denizen of the wilds of Java. I here give you a few of the different Breeds, now most generally known, such as the Imperial Cochin China, Chittagong, Shanghae, Spanish, Bolton Greys, Dorking or 5 Claws, Black Poland, Game, Great Malay, Dung Hill, Golden Pheasant, Silver Pheasant, Bantam.

Her Majesty Queen Victoria has set the example to her subjects, and many of her proudest Nobles have imitated her, while among all classes, ardent poultry fanciers are to be met with. The simple and most successful way, I have succeeded in caponizing Fowls, I here give you. The Bird should be healthy, fasting, and about three to four months old, he is then secured by an assistant upon his back, his belly upwards, and his head down, that the

intestines, &c., may fall up towards the breast; the tail is to be towards the operator.

The right leg is then carried along the body, and the left brought backwards, and held in this position, so as to leave the left flank perfectly bare, for it is there that the incision is to be made.

The said incision is to be directed from before backwards, transversely to the length of the body, at the middle of the flank, and slightly to the side between the ends of the breast bone, and the vent, having plucked away the feathers from the space where it is intended to make the incision, you take a razor or a sharp pen-knife, and cut through the skin, and abdominal muscles. It is better to do this at two or more cuts, in order to avoid the possibility of wounding the intestines, a casualty that would be attended with fatal results in most cases; the intestines present themselves at the orifice, but you must not suffer them to come out; on the contrary, you press them gently aside, so as to have room for action, the incision should have been sufficiently large to admit of the fore finger, previously well oiled, being passed into the abdomen, and carried carefully towards the lumber region of the spine, you will there find what you are in search for, you first reach the left substance, which you detach with your nail, or your finger bent hook-fashion, you then arrive at the right which you treat similarly, bringing both substances forth, you finally return the intestines, sew up the round with a silk thread, a very few stitches will suffice, and smear the place with a little fresh butter, you then place the bird in a warm place where there are no perches as if such appliances were present, the newly made capon might injure himself on his attempts to perch and tear open the structures, for about a week the food of the bird should be soft oatmeal porridge, in small quantities alternated with bread steeped in milk, and pure water with the chill taken off. At the end of ten days, the bird will be all right, and may be turned out to run with all your fowls. I should recommend any one who might wish to try the simple mode of caponizing, to get a dead cock and practice a little, which will give him a better chance to succeed on the live ones.

The different breed of Fowls I have kept to breed from, are the Black and White Poland, Top Knot Dorking, or 5 Claw, and a cross between the Cochin China Cock, and Dorking hen,

which makes a fine hardy bird, weighing from 14 to 16 lbs. a couple and good layers, the food I use for the young chickens, after they are a few days old, is Indian cornmeal with a little wheat, and a small quantity of black pepper ground daily in their food, and I seldom lose or have a sick chicken. I shall give you the success we had last year in rearing two Broods of Turkeys, with the same food, with the exception of adding equal parts of Rit Leaf and Pepper Grass, which is within the reach of every farmer, for it grows and is to be found every where. Twenty-eight Eggs were put under two turkeys, fourteen under each, of which, twenty-six gave birds, they were left about twenty-four hours under the hens, till they got strong, when they were fed on curds with a little Ground Pepper, for about ten days, after which time they were fed as above mentioned, my having had half an ounce of sulphur, strewed over the eggs a few days previous to their hatching, to kill and prevent the young birds taking any lice from the mothers, which is often fatal to broods of young chickens leaving the shell, as turkeys are such close sitters, that they generally get lousey; I should recommend that same trial to be made on all fowls that are put down to hatch. The young turkeys were then removed with the old hens into a dry warm place, till they were three weeks old, when they were allowed to run in a dry yard for three weeks more, in which time we lost only two, leaving twenty-three after their attaining six weeks of age; they were allowed free liberty to run with their dames in the grass fields, taking care to feed them three times a day, giving them a plentiful supply of Ground Pepper in their food, until they attained another six weeks, after which time they were left to shift for themselves, feeding them every evening on Oats and Indian corn, till they were put up to fatten in the fall, when I had them confined in a clean dry place with very little light, and a plentiful supply of ground, leaving fresh water with Oats and Indian corn, constantly before them, and had them as fat as would be desired, in three weeks, the young birds weighing when killed, being a little better than six months old, from 11 to 13 lbs. each. It may perhaps be well to mention the breed of turkeys I keep, they are a mixed breed, the Hens are Milk White, and the Cock was a half Bred Wild Turkey, a cross between a Wild Cock and the Bronze Cold Hen, making a very fine handsome

bird, high on the legs, long neck, with very small head and heavy body, and of a dark Brown or Bronze color, shining like Gold. I have kept over several of the young birds, to see what time they take to come to maturity, both males and females, and when I kill them hereafter I shall give you the results, as it is an experiment I have been making, and am persuaded that the cock birds will attain a very great weight, my being a great amateur of poultry. I don't see why the farmers should not endeavour to improve the different breeds of fowls, as animals; I intend to try several experiments the coming season, in crossing the different breeds of poultry, and shall give you my success in due reason, leaving it, Mr. Editor, to your disposal, and should you find these few lines worth giving insertion in your valuable Journal, I shall conclude.

Yours very respectfully,
CHARLES HUGHES.

ON THE FOREIGN AGRICULTURAL IMPLEMENTS AT THE EXHIBITION.—No. III.

Perhaps a long account of the reaping-machines may be unnecessary, engravings and descriptions of them being given in advertisements by their respective makers, and descriptions by many unprejudiced observers. However, it may not be out of place to observe that, though called American, they are altogether of British invention—M'Cormick is a Scotchman, Hussey an Irishman: Hussey allows that his implement is merely an adaptation of M'Cormick's, by omitting the revolving fans, and substituting triangular knives for the sickle-edged saw.

But M'Cormick's is merely an adaptation—I can hardly call it an improvement—on the Rev. Patrick Bell's, (a Scotchman) whose machine was invented in 1828, and of which between 40 and 50 Forfarshire agriculturists signed a statement "that the machine cut down a breadth of five feet at once, was moved by a single horse, and attended by from six to eight persons to tie up the corn, reaping an English acre per hour."

Mr. Bell's machine had these advantages over the more recent American (or rather British) ones: that it required but one horse for light, and two for heavy crops, instead of being, as M'Cormick's, a heavy task for two horses; that by means of an endless web it delivered the corn in a neat swath at the side of the machine, instead of the rough American way, scattered all over the field, in which the slovenliness and extra labor in gathering almost counterbalances the gain in cutting. The horses in Bell's, working behind the machine, had a greater mechanical advantage than at the side, as in M'Cormick's.

Bell's had a van for collecting the corn. His cutting apparatus was a row of double-edged knives, in the shape of "shear" blades, alternately fixed and moving—the movable ones being worked by a bar reciprocating backwards and forwards, (like the bar M'Cormick's cutter is fixed to) and each movable shear working on a pivot, so that when at work its edges came in contact with the fixed cutters, working, in fact, like a number of scissors.

M'Cormick's improvements were merely throwing away the delivery web, and thus changing a perfect arrangement into an imperfect one—requiring an additional man, increasing the size of the vans, removing altogether the movable knives, and instead, fixing a saw on the reciprocating bar, which worked over fixed teeth, somewhat similar in shape to the fixed cutters of Bell: in removing the horses from behind to front, or rather the left hand side,—in short, in making the implement less complicated, and, therefore, cheaper and less liable to get out of order, but at the same time, less perfect in work.

The price of Bell's machine, at a time when machinery was much dearer than at present, was £30; of M'Cormick's £28, now reduced to £25; of Hussey's £21; and of Mr. Garrett's, an improvement on Hussey's, stronger, and more adapted for English use, only £18 10s. A comparison of these prices prove that, while the Americans wish to obtain an enormous profit by patent rights, the Englishman, who desires no monopoly, makes his machine at a fair profit. Mr. Garrett introduced and manufactured this machine in 1850; and yet the maker of Hussey's unimproved machine, not introduced even into the Exhibition so soon as Garrett's, wishes to retain a monopoly and patent right in the manufacture. So much for reaping machines.

In a former paper, I asserted that many foreign improved machines are merely copies of old English ones. Perhaps I cannot give a better idea of foreign conceit and unfairness than in copying the description of a Belgian drill (Claes), which obtained a medal, as given by the maker. This drill is a very inferior and rough-made imitation of English drills: the seed is delivered by flat iron paddles, as they call them, (like some of our manure drills) and not by cups. The coulters are fixed to the beam, and do not work on levers, but a small coultter to cover in the seed does; yet the maker says:—"This drill has the advantage over English drills?"

1st. "That it is much cheaper—price £12." Cheaper in money we allow, but the best is generally the cheapest in the end.

2nd. "That it is much more simple." In one sense of the word it is.

3rd. "That you can alter the quantity of seed without stopping, which you cannot do with the others, by a most ingenious mechanical process"—consisting of a bar which increases or diminishes the size of the holes through which the seed falls,—a very ingenious and perfect contrivance, truly!!

4th. "That it will sow all kinds of grain or seed, which obviates the inconvenience of having two drills."—Having only one size of paddle, it can sow nothing even tolerably well but corn.

5th. "That the distance of the rows or lines can be altered to any distance, which is not the case with the English ones, and is very inconvenient in many instances."—A clear falsehood all the English drills can be set to various distances.

6th. "That it does not require more than one man to use it, while the others require two or three."—This proves how much foreigners understand drilling. Their idea is, that it is broadcast in lines; and crooked lines they must be with only one man to attend to the drill and horse. In England, drilling is part of a system to be followed by horse-hoeing, which is impossible in careless or crooked drilling.

7th. "That the system of spoons offers disadvantages which this system of paddles has not."—The advantages of paddles are, that sometimes they take up a dozen grains, and sometimes all the grains roll off. Cups take up an equal quantity each time.

8th. "That it is much lighter to draw."—On account of the coultter being fixed to a beam, we suppose, and therefore not half of them being on the ground at all on uneven land, or on ridges. Coultters on levers, however, are much lighter draught. Fixed coultters only can be used on very level sandy land without stones.

9th. "Finally, that it covers the grain or seeds, which the others cannot do without rendering them still more complicated."—A very simple addition to the end of the lever is often used on both manure and corn drills; but harrowing in the seed is considered more effectual.

The Belgian prize roller consists of several short rollers on one spindle: the only originality is, that the spindle is much smaller than the orifices of the rollers, so that it rolls uneven land, and turns easily. Our iron rollers will gain this great improvement when they get old and shaky, the spindle smaller, and the hole the spindle works in larger.

Among other examples of foreign plagiarism, principally from English,—

I noticed, No. 162, Belgian, E Verbist's turnwrest plough. Here the share is double, and turns under the frame. It is an unacknowledged (as they all are) copy of Wilkie's. No. 191, Belgium, an expanding harrow—evidently copied from our expanding horse-hoe and harrow. No. 310, Belgium, a guillotine chaff-cutter, exactly like Gillett's. In the same way the Swiss have, in their department, a rough copy of Lowcock's turnwrest plough; and the French a chaff-cutter, a copy from an American one, exhibited some years back, with the lower roller forming the cutter, and consisting of a series of knives working against the upper roller, which is covered with vulcanized Indian rubber. In the Danish department is a copy of our common chaff-cutters—a strong and useful, though heavy article, made principally of cast iron, the castings left

quite rough, yet, as some improvement, bronzed over.—*W. R.*

BEES.

Since the cost of keeping bees is hardly any thing, and since they provide wax and honey, without depriving any other live stock on a farm, of food, or interfering with them at all; the cottager who has a sheltered and safe spot in his garden, and far enough from the house, will find it his advantage in having a stock of bees.

They procure their own food from the wild flowers of the hill side, as well as from those of the cultivated field, and orchard, and garden.

It is not the choicest and most beautiful flowers which afford the best honey; but those which are common and abundant—the flowers of heath, clover, trefoil, beans, vetches, turnips, cabbages, privet, alder, broom, and furze blossoms, which are even too plentiful.

And, moreover, bees may be kept on any patch of land, in the country, because they will find free quarters and plenty of forage for themselves, on all the flowers within a mile of their home.

Our climate agrees with bees very well, though now and then a very severe winter destroys many hives; which, however, would not be the case if the hives were plastered over with mortar, and otherwise protected, or kept in a dark place free from noise, in which the bees would sleep through the winter, as appears to be their natural disposition in cold climates.

To watch those wonderful creatures in their habits and labors, is a delightful amusement for young people; who may by degrees become so friendly with them, that there will be no danger of their being, as strangers, ignorant of their ways, or making too free with them, might be.

That the Dorans might make profit by bees, I sold them a hive. I would not give them one; not because they say it is unlucky to take a present of bees, but I wish them not to be dependent on bounty for every thing that was necessary to them, but rather to trust to their own exertions to provide whatever they needed.

I got a neat stand put up in a sunny and sheltered spot in Doran's garden, where there was room for two or three more hives in due time.

The garden, and clover, and vetches, were ample store to give food to any number of bees, so that there was no excuse for his not keeping them; nor ought any garden cottager in our country, which produces flowers abundantly and of the best quality for making honey, to be without them.

Even in other places, where such advantages do not exist, I must tell you how profit may be made of the crops of another person, without doing him the slightest injury. I shall tell you how the peasants of Montargis (in the south of France) manage with their bees.

The fields there are cropped principally with

buck wheat, or they naturally produce heath. The honey made by the bees from the blossoms of those plants, is very dark colored, and not well flavored.

The country people who have hives and swarms, find it prudent to sell the hives in winter or spring to dealers, who take them off by hundreds at night to another country, with the hives turned upside down, and closed at the mouth with a piece of linen.

They settle them in some spot as near as they can to large fields of sainfoin.* The bees, feeding on the blossoms of that plant, make up their stock of honey about the first of July; when they are smoked out of their hives, but not smothered.

When the honey is taken from them, they are coaxed back into the hive; and taken back to their own country, where they make as much black honey as supports them until they swarm in the next year, when the same course goes on.

It is always better to lean to the side of humanity; and I have therefore much pleasure in giving you the following plan, by which the cruel system of smothering bees may be avoided. I ask you, as the author of the book from whom I am about to quote, asked his readers, to try it with half your stock. "Keep an account of what you get from each, and use that plan *with all*, which, after five years, gives you most honey."

"You may find in damp meadows a fungus, which children call 'Frogs' Cheese,' and 'Puff Balls:' when they are quite ripe, if you pinch them, they give out a dirty powder like smoke. Pick them when half ripe. The largest are the best; and they often grow to the size of a man's head. Put them in a bag; and when you have squeezed them to half the size, dry them. The fungus is fit for use when it will hold fire like tinder, keep this dry till the time you take your bees. You cannot do without it. In the autumn weigh your hives, mark those which are heaviest and lightest. This you cannot do rightly unless you know the weight of the hives when empty. Weigh them before you put the swarms in. Casts, except they are very early and strong ones, will seldom stand the winter; or they will be so weak next spring, that they will do no good. When the honey season is over, stop up over night all you intend to take up. In the morning take a piece of the fungus, twice as big as a hen's egg, put it in a stick split at one end, and sharp at the other. Have a hive, the same size as that you intend to take up, fixed bottom upwards (a pail will hold it well:) when this is ready, light your fungus, and, as soon as it burns well, fix the sharp end at the bottom of the hive which you have turned topsy-turvy, and place the hive you intend to take on the top of it, and tie a wet cloth round the two hives, that no smoke may get out; you will soon hear the bees drop down; tap the top of the full hive, to make them fall quicker. When they are all down

*Sainfoin resembles clover, in having rich blossoms.

and quiet, lift the full hive gently off, and turn all the bees which have fallen, on a table. They will be quite harmless and still, as if they had been burned with brimstone; but the fungus does them no harm, it only makes them drunk, which is very good for bees, though bad for men, as they get well in twenty minutes, and are all the merrier afterwards; and it was not their fault that they were so overtaken. Look for the *Queen Bee*. It is well to have many people round the table to search for her; as also to cut out the combs, and sweep the bees of; for many hands, as well as eyes, are better than one. If you find her there, keep her safe on one side, and sweep all the other bees back into the empty hive; then cut the combs carefully out one by one, and if you have not already found the queen, look sharp for her on each comb. She generally does not fall down, but holds fast to the top of the hive in the very middle. Sweep the bees with a feather back into the empty hive as you carefully take the combs one by one. In a quarter of an hour they 'will come to.' As soon as they begin to crawl about, take a hive which is strong enough to stand the winter, or one which, having swarmed often in the summer, is weak in bees though heavy, (this, too, must be stopped up the evening before,) and put it gently on the top of the empty hive, where the smoked one stood before, keeping the bees of the two stocks asunder with some coarse canvass, such as is used for straining milk: a piece of thick paper, full of pin-holes, will do; but a sheet of tin punched with holes, the sixteenth of an inch over, is best of all. As many as can should get this, as it serves many other uses among bees. You may slip it under any hive you wish to move, and place it on the top of the empty hive or elsewhere without letting one bee out. Keep the bees in the two hives for twenty-four hours, apart from each other. In the evening of the second day, draw the tin, paper, or canvass away without disturbing the hives. Tap the empty hive, and the bees which have now forgotten their own queen, which you have taken away, will go up into the full hive, as if they belonged to one swarm. Early next morning, when all is quiet, set the double hive back in its old place. If you pull the tin away too soon, the bees will fight terribly, and kill a great many, and sometimes even the other queen. For fear of this, you must take care of the queen you smoked. The next day, after the stock has been put back to its own place, put this queen into the mouth of your doubled hive; if any accident has happened to their own queen they will gladly take the stranger to reign over them."

COWS FOR DAIRY PURPOSES.

At the last Quarterly Meeting of the Hereford Farmers' Club, a discussion took place on the subject of the capabilities of Herefords as milkers; in the course of which Mr. Rowan, a practical chemist of Hereford, explained that

the land of Herefordshire was greatly deficient in the phosphates, which were most essential to the formation of milk. It had been observed that in Cheshire the milking properties of the cows had very much deteriorated, from the fact that the cheese made from their milk was exported from the county, nothing being supplied to the land in its stead with similar elements. An analysis of milk had proved that the curd was very rich in phosphoric acid, and the remedy for the deterioration consisted in the application of bone-dust. The fact that Herefordshire was very deficient in the phosphates would in a great measure account for the non-milking properties of the cows; and a good milker brought here from another country would in a few years, most probably, become a very bad one.—The Chairman, Mr. Lingwood, said, this had been the case with a Suffolk cow of his own, and he was compelled to feed her—Mr. Haywood inquired whether, upon the application of bone manure, the difference in the quality of the grass would be perceptible.—Mr. Rowan replied that it would, and then observed that the geological formation of Herefordshire and Cheshire was in some respects similar; the greater part of the former resting upon the old, and of the latter upon the new red sandstone.—Mr. Newton observed that Gloucestershire was a dairy county, and its soil had a good deal of blue lias clay in it, which was very rich in phosphates.—The Chairman added, that many of the farms were on the oolite formation.—Mr. Rowan said, a very cheap method of supplying phosphates to the land was by the use of coprolites, which could be obtained from Essex and the eastern parts of England. They contained about 80 per cent. of phosphate of lime. The Chairman feared that Herefordshire was at too great a distance from Essex.—Mr. Rowan replied that they might be got to Gloucester by rail at a cheap rate, and from thence to Hereford by canal.—After some further discussion, the meeting arrived at the following decision:—"It is considered that much may be done to improve the milking properties of the Hereford cattle intended for the pail, if made to calve in the month of May, and at about two years old, and if due regard was paid to the herbage and management of the milking. That the Hereford cattle are considered superior to those of any other breed, in so far as they combine the aptitude to fatten with their character of milkers. It is also observed that the pastures of the county of Hereford, from the deficiency of phosphate in a large portion of the districts are not well adapted for dairying."

TO MAKE PAINT DURABLE.—Dissolve an old India rubber shoe of common size, in three or four gallons of oil by heating it, and put on the paint after being prepared, while it is warm. White lead and oil make an imperfect body, and soon wash off; India rubber added to paint makes it glossy and durable.

Agricultural Journal,

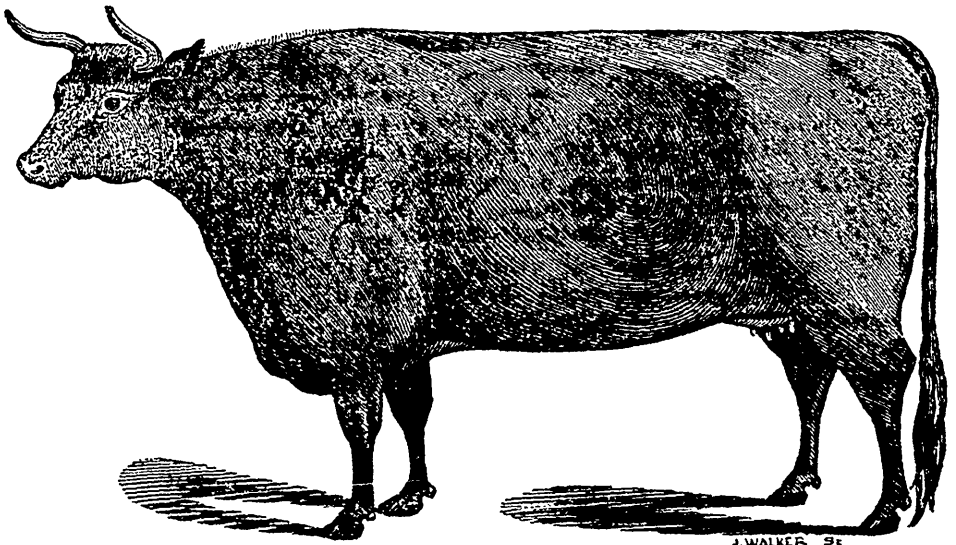
AND
TRANSACTIONS

OF THE
LOWER CANADA AGRICULTURAL SOCIETY.

MONTREAL, MARCH, 1852.

We would invite particular attention to the Resolution of Mr. Kierskowski, on the subject of "Associations of Agricultural Credit," which was adopted, we believe, with the general approbation of the Agricultural Congress. His Report in support of his Resolution, shall appear in the April number. We have for a long period advocated this measure, but it has now the advantage of being recommended by a general meeting of the Lower Canada Agricultural Society, and the agricultural class are much indebted to Mr. Kierskowski, for bringing the subject forward, and supporting it so ably. It is now before the public for discussion. It would not be right to press the matter without due consideration in all its bearings, and ample enquiry as to the working of

the system in other countries where established for a long time. But if these enquiries should prove satisfactory, agriculturists will have a just claim to have a Law authorising these establishments with as little delay as possible. It is in vain to recommend improvements to farmers, if they have not the means to execute them. We should be far from recommending extravagant expenditures, but we have had frequent opportunities of knowing that improvements were prevented for want of means, and in instances where a trifling outlay would have been certainly refunded with a profit. There is not any other means that we are acquainted with, which would afford so safe accommodation to farmers, as "Associations of Agricultural Credit." And the Rules of these establishments would necessarily secure the progress of the improvement of agriculture with all who obtained any accommodation from them. We shall give in the next number some further information of the working of these institutions in European countries.



PRIZE DEVON HELFER PRIMROSE,

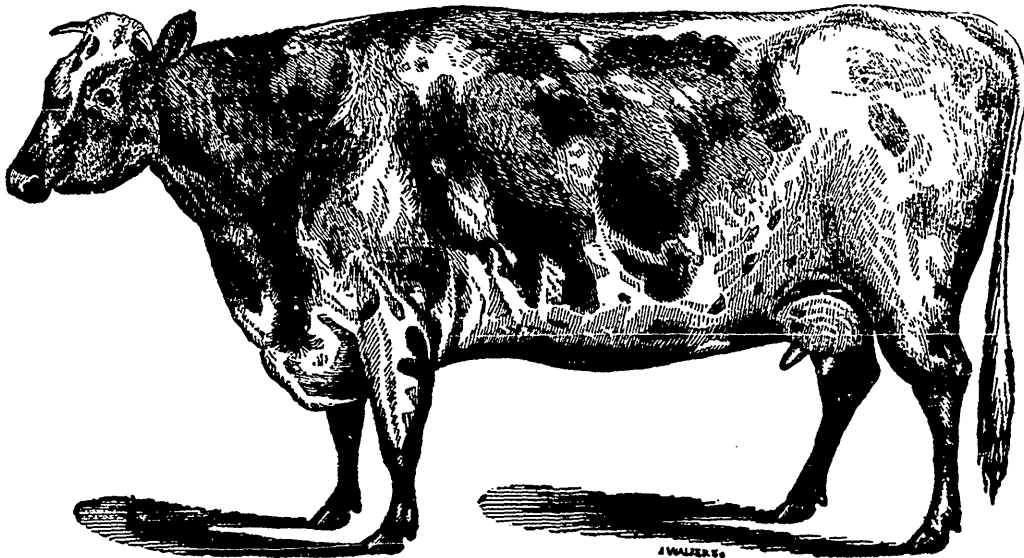
THE PROPERTY OF THE EARL OF CHARLEMONT, MARINO, CLONTARF, DUBLIN.

Was awarded the First Prize of Ten Sovereigns, as the best Heifer in her class. Calved May 4, 1849; bred by Exhibitor: got by Old Shamrock, out of Polly; Shamrock got by Kingsland, out of Daisy.

We recommend to our readers the letters of the Presidents of County Agricultural Societies, published in this number. So far as we can advocate the establishment of turnpike roads, wherever they would be likely to pay the interest of the money expended upon them, we most willingly do so. The road alluded to by Mr. Robertson, the President of the County of Dorchester Agricultural Society, is one which we conceive has peculiar claims to be made a Turnpike road, with as little delay as possible. We are not personally acquainted with the County of Dorchester, but from Mr. Robertson's representation, the making of a Turnpike road upon the line he points out, could not fail to be a vast benefit to the inhabitants of that County. There cannot be a more equitable mode of providing good roads than by turnpikes and tolls. But if there is not some assistance granted by the Legislature for their first construction, how can the people ever expect to enjoy this advantage? When Turnpike roads were first introduced into Canada, we know that Canadian farmers had objections to them, but we rejoice to say, that the case is quite different

now, and we believe they are as much in favor of them, as they were previously opposed to them, from experience of their convenience and utility, saving to them, in labor alone, tenfold as much as the toll they have to pay. The District of Quebec have not the advantage of their due proportion of Turnpike roads, and this is not fair towards the inhabitants.

The late General Meeting of the Lower Canada Agricultural Society, however well disposed to take up the subject of the establishment of a Model Farm near Quebec, as proposed by one of the Directors, H. L. Langevin, Esq., in his letter published in this number, they could not prudently take any action in the matter until it is known how far the Government and Legislature, will, at the next Session of Parliament, be disposed to aid in establishing such institutions. The feeling is generally so favorable to try the experiment of Model Farms that the subject cannot well be neglected any longer. Previous to the assembling of Parliament, we would recommend that the supporters as well as the opponents of such establishments should discuss the subject fully, by means of the public press.



AN AYRSHIRE COW.

The property of the Honorable Wm. Coventry of Earls Croome,—Worcestershire, England.

AGRICULTURAL CONGRESS.

On Thursday the 10th day of February, 1852, a General Meeting of the Lower Canada Agricultural Society took place at the St. Lawrence Hall, Great St. James street, in this City, pursuant to notice in the newspapers, both of Montreal and Quebec, and in the Agricultural Journals. The Directors of the Lower Canada Agricultural Society at their Meeting on the 7th of January last, passed a Resolution, electing the several Presidents of the County Agricultural Societies in Lower Canada, Honorary Members of the Lower Canada Agricultural Society, and the Secretary was instructed to address letters to each of the Presidents of County Agricultural Societies, apprising them of this Resolution, and respectfully inviting them to be present at the General Meeting on the 10th instant.

Soon after eleven o'clock, A.M., it was proposed by P. E. Leclere, Esq., and seconded by Dr. Valois, M. P. P., that Colonel Campbell, of St. Hilaire, do take the Chair, which passed unanimously. Colonel Campbell, having taken the Chair, explained the object of the Meeting in the following terms :

The Directors of the Lower Canada Agricultural Society have called this meeting for the purpose of taking into consideration important matters, in connexion with the advancement of Agriculture, and of endeavoring to impress upon the Legislature the necessity of taking some decided steps to bring about a general improvement in the system of cultivating the soil in this section of the Province ; and in order to give more weight to its proceedings, and to ascertain the wants and wishes as well as the opinions of those engaged in this important occupation in the different countries, and to obtain, as far as possible, unity of action in an onward movement, the Presidents of the County Agricultural Societies have been elected Honorary Members of this society, and have been invited to attend on this occasion. I am sorry not to see more of these gentlemen present ; several have, however, sent interesting letters which I will now proceed to read to you.

William Evans, Esq., Secretary of the

L. C. A. S., having been appointed to act as Secretary to the Meeting, had placed before the Chairman several letters received from the Presidents of County Agricultural Societies. They were from the following gentlemen :—

1st. O. C. Casgrain, Esq., President of the Agricultural Society of the County L'Islet, No. 2.

2nd. Colonel Robinson, President of the Agricultural Society of the County of Dorchester.

3rd. B. Holmes, Esq., President of the Agricultural Society of the County of Chambly, No. 2.

4th. Hon. Wm. Sheppard, President of the Agricultural Society of the County of Drummond.

5th. Mr. Dumonlin, President of the Agricultural Society of the County of St. Maurice.

6th. E. J. De Blois, President of the Agricultural Society of the County of Quebec.

7th. Dr. Dubois, President of the Agricultural Society of the County of Saguenay.

There was also letters from C. Tache, Esq., M. P. P., and H. L. Langevin, Esq., of Quebec, both gentlemen Directors of the Society.

These letters were read by the Chairman, and ordered to be published in the Agricultural Journals of the Society.

It was then proposed by L. A. H. Latour, Esq., of Montreal, and seconded by P. E. Leclere, Esq., of St. Hyacinthe—

1st. *Resolved*.—That a complete and liberal system of Agricultural Education would place the farmer in a position to increase the value of his landed property, and would provide him with the knowledge necessary for its amelioration ; that science applied to agriculture should occupy a prominent place in all our instructional institutions ; and that Agricultural Schools well organized and directed, in conjunction with " Model Farms," would materially tend towards the education and dignity of the working classes ; that the time to establish such a system of education throughout the province has arrived ; and that it is a subject worthy in all respects of individual and Legislative approbation.

Mr. Leclere said a few words in French, in support of this Resolution. Mr. Chagnon also made some remarks in the same lan-

guage. Mr. Ossaye, the superintendent of the Model Farm at La Tortue, then read in French, a long Report which was much approved of, and ordered to be published in the Agricultural Journal, both in French and English, and will appear in the next number. The Resolution proposed by Mr. Latour passed unanimously.

Proposed by A. Kierskowski, Esq., of St. Marc, seconded by A. Vandandaigue, Esq., Belœil—

2nd. *Resolved*,—That this meeting is of opinion that amongst the numerous laws, ordinances, and regulations, which affect the land and agricultural interest of this province, there are none so necessary to develop their immense resources as the establishment of Associations of Agricultural credit; and this meeting entertaining but one conviction as to their salutary influence on the prosperity of the Agricultural population, do petition the Legislature for the adoption of such measures as shall procure the establishment of such institutions in this Province, they having promoted the prosperity and happiness of the rural classes in the countries where they have happily been introduced. (Adopted.)

Mr. Kierskowski read an interesting Report in French in support of his motion, and the Chairman explained a part of the Report in English. On the question, whether the Resolution do pass, the Hon. Mr. Harwood of Vaudreuil, offered some remarks in English, upon the uncertainty of title of landed property from the present state of the law, and the necessity for its amendment. The Resolution of Mr. Kierskowski, was, however, unanimously adopted, with the single exception of Mr. Harwood. Mr. Kierskowski's Report was ordered to be published in the Agricultural Journal in English and French, and shall appear in the next number.

Proposed by John Fraser, Esq., St. Marc, seconded by John Yule, Esq, Chambly—

3rd. *Resolved*,—That it would be for the advantage of the Agricultural population of this Province, that there should be a Board legally acknowledged by the executive authorities of this country, to promote the interests of Agriculture. Adopted unanimously.

Proposed by Dr. Valois, M. P. P., seconded by David Laurent, Esq., Varennes—

4th *Resolved*,—That it is necessary, in behalf of the inhabited part of the Province, that, there

be taken measures to prevent the destruction of the forests within reach of settlements, and, above all, in the grand centres of population, and that it will be well to encourage the planting of trees in the great centres aforesaid, as a means of furnishing firewood at a low rate, which will have the effect of preventing emigration and depopulation, by making firewood plenty and cheap (Adopted.)

Dr. Valois spoke in support of his Resolution. There was considerable discussion upon this Resolution, but Dr. Valois having consented to make some alterations, it was finally adopted without a division.

Proposed by L. A. H. Latour, Esq., seconded by Dr. Milleur, S. E. E. C.

That it is very important to establish in this city an Agricultural museum, in which should be collected together the most approved agricultural implements in use, the grains and seed grown in this Province, as well as those from other parts of the world. A Farmer's Library and reading room a place of resort to the farmer when in the city; when he may pursue his inquiries having the articles before him, and where he could receive and exchange seeds, grain, &c., and thus benefit himself as well as others.

Passed without opposition.

The Chairman then enquired if there was any other motion to come before the meeting, and none appearing, addressed the meeting as follows :

Before adjourning this Meeting, allow me to address the great gratification it has afforded me to be called upon to preside over this our first Agricultural Congress, I trust it is but a prelude to many more, for I am convinced that the assembling together of so many gentlemen from different parts of this Section of the Province are engaged in a common pursuit which cannot fail to be attended with much good. It will make us better acquainted, and afford us the means of ample discussion, which will be our interest to encourage, by which truth will be elicited, prejudices removed, and just conclusions arrived at, to the great benefit of all here at least, we shall have a spot of neutral ground on which those of every shade of politics may meet and work shoulder to shoulder in a common cause; the proceedings of this day have shown us how amicably and quietly discussion may be carried on when the demon of party strife is allowed to slumber. I trust that those who have this day favored us with their presence will, on their return home, explai

more timid friends who have not ventured to appear, that there is really nothing very formidable in the Agricultural Congress, and induce them to muster more strongly at our next session, and if I may be allowed to make a suggestion, I would say, in the quick retirement of your peaceful homes, think over these matters, and come prepared to give the result of your thoughts and of your practical experience, and to take part in the discussions which may arise; rest assured, that in so doing, you will be performing the part of good citizens, and in furthering your own individual interest, you will be assisting to promote the general advancement and prosperity of our beloved country.

The Chairman having retired from the Chair, an unanimous vote of thanks was passed to Colonel Campbell for his able and dignified conduct while presiding at the meeting.

The meeting was well attended, considering the season of the year. Between fifty and sixty gentlemen were present, ten of whom were Presidents of County Agricultural Societies, viz:—John Yule, Esq., County Chambly; Charles Roy, Esq., County Chambly, No. 1; A.E. Montmarquet, Esq., County of Two Mountains; P. E. Leclere, Esq., St. Hyacinthe; John Dodds, Esq., County of Montreal; Dr. Poulin, M.P.P., Rouville, No. 1; A. Vandandaigue, Esq., County Vercheres, No. 2; Edward Masson, Esq., County of Terrebonne; ——— Dustiller, Esq., County of Berthier; B. Lebourcer, Esq., County of Sherbrooke.

In consequence of changing the place of meeting, from where it was first advertised to take place, several gentlemen who had come from a distance to be present, were unable to find the place until too late. This, however, is only a commencement of such meetings, and if the vice-Presidents of the County Agricultural Societies will only be present at future meetings, they will find that their advice and suggestions will obtain all due attention. The Lower Canada Agricultural Society have no other object but the general improvement and prosperity of agriculture, and they are ready to co-operate with any and every Society in the Province to accomplish this object. The

united efforts of all who are interested in agriculture will be necessary to perfect the good work of improvement in husbandry which now appears to be happily commenced.

L. A. H. Latour, Esq., one of the Directors of the Society, very kindly acted as Assistant Secretary to the Meeting.

TO WM. EVANS, Esq., *Secretary of the L. C. A. S.*

SIR,—I have the power to acknowledge the receipt of your letter, in which you inform me that the Directors of the Lower Canada Agricultural Society have been pleased to confer upon me as president of the Agricultural Society of the County of L'Islet, the title of Honorary Member of their Society, and moreover invite me to attend at the Central Congress which is to be held at Montreal. Be pleased, Mr. Secretary, to assure the Directors of my gratitude, and to express to them the regret I feel in finding myself deprived, on account of the bad state of my health, from the possibility of being present at a meeting at which I would have been most happy to assist, as much as to comply with the desire of the Society, as to derive from them information which would not have failed to become of great advantage to the County of L'Islet. I feel the most ardent wishes for the success of all the undertakings of your Society. I have the utmost confidence in those who direct them, and seize this opportunity to assure you of the high consideration with which I have the honor to be,

Sir,

Your most obedient and humble servt.,
O. C. CASGRAIN,
*President Agricultural Society,
County of L'Islet.*

TO WM. EVANS, Esq., *Secretary to the L. C. A. S.*

SIR,—I duly received your letter of date the 10th ult. acquainting me of the honor done me by the Directors of the Lower Canada Agricultural Society, in conferring on me the honorary title of Member of that Society, for which I beg to return them my best thanks. I am sorry that circumstances will put it out of my power of having the pleasure of being present at the general meeting of the members of the Society, to be held at Montreal, on the 10th instant. But I beg to avail myself of the present occa-

sion, to submit to the society my views on some of the questions which I have heard agitated with regard to the forwarding of the progress of agricultural knowledge. I would especially recommend the establishment of Model, or rather experimental farms, the usefulness of which, in this country, no person in the least acquainted with agriculture, will, I should think, question. I would not recommend the establishment of those farms in order, or expecting, that the mode of culture there followed, should be adopted by those who might have the advantage of seeing it. But principally that many new modes of culture, which have been found to succeed in Europe, or elsewhere, might be repeated in this country, under the eye of an experienced and intelligent farmer, so that whether he finds the experiment to succeed or not, the trial being made public would obviate the necessity of others following it, were it not found to answer in this climate. If means could be found to introduce those experimental farms, and at the same time continue the present liberal allowance to County Agricultural Societies, all very well, but if the one or the other must suffer, I for one would wish to see experimental farms established. It would be too long to mention here the many advantages which would certainly result from such farms. I am far from thinking that the County Societies have been found to answer the good intentions of the Legislature, nevertheless improvement is going on slowly, and indeed, every thing connected with agriculture requires time. I think it would be better if the objects for which the County societies might give prizes were generally specified by the Directors of the Lower Canada Agricultural Society.

I am also of opinion, that nothing is more likely, or better adapted to forward agriculture than a well conducted Agricultural Journal, and although the present has not certainly received that encouragement which it has merited, its failure ought not to be attributed to the unaptness of the thing, or a want of need, or perhaps even of a desire of information, in the class for whose use it is intended, but to the too recent introduction of the schoolmaster amongst them, but, under the present system, this obstacle will soon disappear; perhaps also the introduction of *tracts* on agriculture into the common schools might be useful.

Perhaps the Directors of the Lower Canada

Agricultural Society will excuse me, or perhaps it is, as I am rather inclined to think, my duty to point out, what is in my opinion, the greatest drawback on agriculture in the County of Dorchester, and I have no hesitation in saying it is the state of the roads; it being a very extensive and populous county, extending from the St. Lawrence to the United States, through which the post road from Quebec to Boston, by the Kenebec, passes for about one hundred miles. Now the first twenty miles of this road, from Point Levi, being generally on a clayey soil, or what is still worse, a swamp, making bad roads at all times, but it becomes almost impassable in spring and fall, in consequence of the great travel. On this great and central thoroughfare, it is quite too much for the inhabitants bordering on it to keep it in repair, and the only way to have and keep a good road here, is to have a Turnpike road, made on the same principle which has been adopted in many other localities in Upper and Lower Canada, in which the credit of the Province is granted, for the interest of the money required, and which is paid by the tolls, so that those who use the roads will pay for keeping them in repair. There is no way so just and equitable as this, more especially near towns, the arguments of many of those who are now enjoying those roads, that they do not pay, should not be listened to; it is true that many of them in Canada West, were made in thinly peopled districts, and could not be expected to pay interest immediately, but their benefits to the country are incalculable. But it is evident that the one which is required here would very soon, if not immediately, pay. Many of the Directors of the Lower Canada Agricultural Society being some of the most intelligent and influential members of our Government, might, if they were so inclined, put us in the way of getting this so much required improvement.

The construction of a railway, as is proposed from Halifax to Quebec and Montreal, passing near the St. Lawrence, would only make such a Turnpike road more necessary. I hope the Directors will take the most favorable view of this communication, and not forget that I am more acquainted with the plough than the pen.

I have the honor to be, with respect,

Your very obedient servant,

CHARLES ROBERTSON,
Pres. of the A. G. S. No. 2.
County of Dorchester.

To WM. EVANS, Esq., Secretary L. C. A. S.

SIR,—Your letter dated the 30th January last, I received on Friday, the 6th inst., by which you inform me that at a meeting of the Directors of the Agricultural Society of Lower Canada, which took place on the 7th January last, I have been elected an Honorary Member of that Society, and requesting my attendance at Montreal, on the 10th instant.

I am sorry to inform you that being confined to my house for six weeks past, it is impossible for me to have the pleasure to attend at the meeting; still I will bear in mind the honor the gentlemen Directors of the Agricultural Society have done me, by their polite invitation. Although not present at the meeting, I assure you that it shall always be my sincere desire to do all that is in my power to promote the advancement and advantage of Agriculture in Lower Canada.

I have the honor to be, sir,
Your most obedient servant,
B. HOLMES.

Saint Luc, 7th February, 1852.

To WM. EVANS, Esq., Secretary L. C. A. S.

DEAR SIR,—I have to acknowledge the receipt of your letter dated 15th January, 1852, informing me that the "Lower Canada Agricultural Society," had conferred upon the Presidents of the County Agricultural Societies of Lower Canada, the title of Honorary Members of that Society, and that in such capacity, I am invited to attend a General Meeting of the Society, on the 10th instant, at which matters of vital importance to the welfare of the Province, would be discussed. And that the attention of the meeting will be called to a consideration of the best means to encourage and extend agricultural education throughout the Province.

I have to request, sir, that you will express to the society my thanks for the honor thus conferred, and to assure the members that nothing but the severe and protracted indisposition, under which I am suffering, would prevent my attendance at a meeting so fraught with advantage to the rising generation of farmers, in this section of the Province, and as a necessary consequence to the increased prosperity of the country, a movement that does honor to the Society, and which, it is my sincere wish, may be attended with complete success.

The success attending the well directed oper-

ations of the Earl of Clarendon, under much less promising circumstances, will encourage us to hope for real improvement in the practice of our farmers, who, although somewhat wedded to obsolete practices, are a thinking and intelligent people, open to conviction, especially on the view of others success. But to the rising generation we must principally look for the adoption of improved practices throughout the Province: on this point, I should say, the hopes for result hinges.

Hoping to the eleventh hour that my health would so far improve as to allow me to attend your meeting, I must again express my regret at my inability to attend. Wishing to have an opportunity to express some opinions that I have hopefully entertained on this important subject,

I have the honor to be,
Dear Sir,
Your very humble servant,
WILLIAM SHEPPARD,
Pres. A. S.
County of Drummond.

Drummondville, 7th Feb., 1852.

SHORT REFLEXIONS

UPON THE MEANS OF ADVANCING AGRICULTURE,
SCIENCE, AND INDUSTRY, IN CANADA.

We are in Canada happily situated for turning our attention and efforts towards agriculture, the true source of prosperity to every people. Here we can prosper in quiet, far from those pre-occupations and turmoils which agitate the nations. Our revenues are not absorbed in the support of armies, of fleets, and of foreign relations; the intelligence of the country is not lost in the labyrinth of diplomatic combinations; we are protected in our liberties, in our industry, and in our efforts, by troops which we do not pay, and by a marine, to the equipment of which, we contribute nothing.

Canada offers to day, that happy mixture of a large and small proprietary, the first are not numerous fortunately, the second forming the great mass of the population; the first, if they comprehend their duty, ought to organise an instructing, experimenting body, cultivating agriculture as a science; the second, the exploring body, practicing agriculture as industry.

I ought here to consider at length, a situation so advantageous to Canada, under all its rela-

tions, compared to that of other countries, where an immense amount (other things being equal), of intelligence, of labor, and of capital, is expended annually, with a view of arriving at a state of things, which amongst us exists of itself, and can be maintained without effort; but I must confine myself to a few words.

The Congress of agriculture convoked by the Lower Canada Agricultural Society, has doubtless for aim, the examination of the two following questions, viz:—

First,—What ought to be the action of the government with the view to the advancement of agriculture.

Second,—What ought to be the action of the instructed class towards this same end.

That I may be permitted a word in solution upon these two important questions. The following ideas are contained in the "Report of the Committee of Agriculture," (session 1850). I resume under these two heads, all that is to be done on the part of the authorities.

First,—To instruct in the improvement of agriculture.

Second,—To recompense the efforts, and stimulate the emulation of those who are instructed. The means of instruction are, as appear to me; first, Model Farms upon an economical footing; second, the publication of Elementary Treatises, and of Journals; third, the introduction of agriculture as part of instruction in the schools and colleges. The means of encouragement are by exhibitions, where premiums would be given as rewards to merit and progress.

As every organization requires an executive and directing power, it is above all necessary that superintendents, of agriculture should be beyond the influences of party strife, and entirely exempted from the vicissitudes of party.

And as a source, a common *condensateur* is necessary to every science, the Society of Agriculture of Lower Canada, should be adequately subsidized with the obligation of forming a library, of keeping agricultural registrars, of maintaining a seed store, and publishing Journals, things which the Society has even with its present limited means, done to the full extent of its ability.

I beg attention to the Reports of the Legislative Committee, of 1850 and 1851; this labor conscientiously undertaken, and to which

a great number of estimable and instructed men contributed.

As to the moral action which the instructed class ought to exercise upon the agriculture of the country, this is, as in all other things, left to the patriotism, to the conscience, and to the capacities of each, and is imposed as a duty upon all. Now, this duty devolves at the present time, above all, upon the congress of agriculture which is about to be opened. It is necessary to cultivate the public spirit deeply, as a soil which has been long neglected.

It is necessary to point out to the cultivator the real advantages of the soil and climate of Canada, and to make him understand that every where there are inconveniences and disappointments in husbandry. Convinced that it is the proprietor who enriches his lands, and not the lands which enrich the proprietor, that the soil fashions itself under the hand of the laborer; for confidence and hope offer the first guarantee of success.

It will also be necessary to draw the attention of the farmer to the rearing of cattle, and the best means of feeding them, to make him feel the necessity of collecting and cultivating simultaneously a large variety of seeds, and to convince him of the necessity of creating pasturage, and extensively improving the cultivation of the soil, so that the augmentation of the number of his cattle may be proportionate to his means of nourishing them, and be thus saved the necessity of seeking outside his own farm-yard for the means of fertilizing his fields.

Before closing this little memoir, I cannot refrain from saying a word upon "Model Farms." I do not hesitate to pronounce large Model Farms as almost impracticable from the great outlay which they necessitate, and the very limited results which they produce, owing to the necessary smallness of their number, which cannot exceed three or four.

It is with "models" of agriculture on a small scale, exclusively industrial, and resolving the problem of "the largest possible cultivation with the least possible means," that we have to deal.

I would propose, then, to establish a Model Farm in the chief place of each municipality, and to appropriate annually to each, a sum not exceeding £150, expending it as follows:—Having found an intelligent farmer of comparatively easy circumstances, and well disposed, I should propose to him the following proposition:—

Will you, in consideration of this sum and the attending benefits, consent to become a "Model Farmer," if so, take and divide your farm into fourteen fields, running a pathway *chemin mitozen* down the centre, so as to have seven fields on each side. To complete this division, it will be necessary to allow 70 arpents for enclosures. Very good, when you have achieved this labor, you shall receive the sum of £60. The first autumn you will manure the two first fields on each side of the pathway, forming, let us say, ten arpents, at the rate of twenty-five loads to the arpent. These ten arpents you will sow with potatoes, rape, red-beet, and cabbages, and for this you will receive the sum of £50. The same autumn you will paint your stable and make it perfectly dry; and you will construct in connection and communicating with it a small building. In this you will deposit, very closely packed, ten loads of sand or other earthy matter for each stall, and scatter it daily throughout the winter over the pavement, in order to collect all the liquid manure and incorporate it with the solids; for this you will receive, say, £20. You will follow the orders of a superintendent, and adopt whatever improvements, (*assolements*,) he may point out. You will also make artificial meadows, all, which if you do well, and explain your labors as you progress, you will receive at the end of the year, as recompense, the sum of £20, to enable you to repair your farming implements, to improve the race of your cattle, and to indemnify you for the obligation of allowing agriculturists who desire it, to visit your farm.

So much for the first year; and you will continue to receive yearly the same grant, for manure, for the increase of stock, and the improvement of farming implements, with the exception of the £60 given for enclosures as above, until your entire farm has been similarly treated, which will take seven years.

These £60 might be given in premiums, to recompense others who imitated the examples set them. The first premium of £20, the second of £15, the third of £10, and the fourth of £5 to be given to the number of four.

It might be so arranged as that these premiums would not be accorded a second year to the same persons for similar or inferior improvements. I would wish to have time to develop these propositions which I have announced; but, forced to be brief, I write in such haste that I could be

tempted, were I to consult my "*amom-propre*," to burn this sheet.

J. C. TACHE.

Rimouski, 5th February, 1852.

Quebec, January 28, 1852.

SIR,—I hasten to acknowledge the receipt of your letter of the 25th instant, (received this morning) acquainting me of the proposed Meeting of the Members of our Society on the 10th of February next at Montreal, and to which Meeting the Presidents of the County Agricultural Societies, previously elected Honorary Members of our Society, are invited in order to assist in the discussions that may take place. You ask me, moreover, to communicate to you any suggestions I wish to make, as a Director of the Society.

In answer, I have the honor to inform you, that were it not for the severity of the winter, and the means of communication being so tedious and difficult at this season of the year, I would make it my duty to be present at your Agricultural Congress, whose influence and results may prove to be of immense advantage to the progress and improvement of the Agriculture of our country. But I must forego the pleasure of being present at that important assembly, and be content to communicate to you by means of this letter, the observations and suggestions which I would make were I present.

The Agricultural Congress ought, in my opinion, to express a desire, that a Minister or Superintendent of Agriculture, with a special Department, should be created by the Government or Legislature. This would be a very effective means to put Agriculture in high estimation, and attract to it from the Government and Legislature that continual attention which it so imperiously requires, from its being unquestionably the foundation of all our material prosperity, and as without it our country would be of very little value.

I shall not take upon myself to enumerate the various duties of such a Minister and Department of that description, the thing may be easily conceived and pointed out by the operation of other public Departments. That new Minister and Department might also embrace Commerce and Manufactures if it was judged proper, these two branches being closely connected with Agriculture.

The Congress should advocate the establish

ment at Quebec of a Board of Agriculture dependent on, or subordinate to the Lower Canada Agricultural Society. This would be a powerful means to give to the Agriculture of this District an impulse which it cannot receive from the Mother Society, who are not in a position to know and appreciate sufficiently all that is wanted here. That Agricultural Board might have at Quebec a Library and Museum, and deliver a course of Agricultural Lectures during winter, they would hold Ploughing Matches at a convenient time, and upon principles that would be the best calculated to promote the interests of the farmer's, in a word that Board whose powers might be extended or restrained according to the will of the mother Society, who are empowered by their Act of Incorporation to create such a Board, would immediately give to the Lower Canada Agricultural Society a new lustre, and greater renown—things which in the opinion of some parties ought not to be much valued, but which I believe always contributes to give to the Body who possesses them more importance and authority, and consequently more extensive means of doing good.

The Agricultural Congress should also pronounce itself in favor of one or more Model Farms in a central situation, and with an easy access. If people have to travel six or nine miles in a carriage before arriving at the Model Farm, it would prevent not only agriculturalists but friends of Agriculture from visiting these establishments. These farms ought to be situated conveniently, or near a railroad, and should not be located at any one extremity of Canada, whose general interests they are intended to promote, according to the Act of Incorporation of the Society. If such a farm was situated in the County of Saguenay for example, how could the inhabitants of the District of Montreal profit by it? If on the other hand, it was situated fifteen or eighteen miles higher up than the City of Montreal, what benefit would the inhabitants of the District of Quebec derive from it? If there is only one Model Farm, let it be situated near Montreal, Three Rivers, or Quebec, so that it may be arrived at in a quarter of an hour or little more. It would be desirable, perhaps, that it should be placed definitively near the town of Three Rivers. That place would be central, and probably, the most judiciously chosen for such a purpose, for as an Agricultural School or College must be attached sooner or later to a

Model Farm for the instruction of our farmers' children, it would be of easy access for the parents and students, and to such an advantage is to be added the undisputed salubrity of the locality. I perceive I have just come to the question of an agricultural education, but it is not my intention to enter into a long detail on the subject. All that I wish to observe, is, that education whatever it may be, requires to be religious, not to be immoral and impious, and as the students would be of different religious professions, the proximity of a city or town, to the School and Model Farm, would afford to the students the opportunity of going on Sundays and Holy-days to their respective churches, to which they would be conducted respectively by their teachers. This question of Agricultural Education cannot fail to occupy seriously the attention of the Agricultural Congress, for that education has been too long neglected in Canada, and it would not be proper to leave it to the zeal, devotedness, and patriotism of a single individual.

There is an imperious necessity of providing some means for the preservation of our forests, in order that we may not be deprived at a later period of timber and fire-wood, and that necessity has been submitted by me two years ago, to the Committee of Agriculture appointed by the Legislative assembly. I think it right, however, to mention it again in order that it may not be lost sight of.

The Journal speaks also of keeping a stud of horses, as likely to be very useful. There can be no doubt of its utility, when it is known that we have now so few of the pure breed of our good, strong, though small, Canadian horses in the Country. The suggestion is good, and should not be allowed to remain a dead letter. In conclusion, I beg leave to express the wish that every year, in the season most convenient for the greatest number to attend—the Lower Canada Agricultural Society may convene an Agricultural Congress an innovation this time, but which, if continued, will be a most useful and patriotic institution.

I have the honor to be,

Sir,

Your most obedient and humble servant,

HECTOR L. LANGEVIN.

To Wm. Evans, Esq.,

Secretary to the L. C. A. Society.

To WM. EVANS, Esq., Secretary and Treasurer
of the Lower Canada Agricultural Society.

Mr. Secretary,

Apprehensive as I am of not being able to communicate early enough with the Society, I have applied directly, in my capacity of one of the Directors of the Lower Canada Agricultural Society to the Honorable A. N. Morin, to ask of the Government not to let, as advertised in the Gazette, the farm of the Demesne of the Seignior of Notre Dame des Anges, situated at La Canardièrè, near Quebec, but to reserve it for a Provincial Model Farm. This Farm is not three miles from the City, and the road leading to it is very good. The soil is varied, one part being adapted for meadow, and the remainder for grain and green crops, the soil is of a good quality. It contains two hundred and sixty acres and makes part of the Jesuit's estates administered by the Government. After I had made my official communication, I had an interview with the Honorable Mr. Morin, who appeared well disposed as even to favor Agriculture, but he told me that it is not the intention of the Government to take the duty upon itself, to establish one or more Model Farms. But he gave me to understand that any Agricultural Society who would be desirous to establish a Model Farm here, would very probably obtain the support and aid of the Government. He added, however, that the land belonging to the Jesuit's estate, could not be given to our Society without paying a rent for it, but that it could be leased to them at the public auction which is to take place on the 14th instant.

I apprise you, Mr. Secretary, in order that you may submit this communication to the Meeting of the Society which is to be held on the 10th of the month. The rent actually paid now for the land is about £70 a year. I think at all events our Society would not have to pay more than £80, but as this farm is of great extent and as it appeared to be considered here that a smaller farm would be more convenient, the half of it might be relet by the Society, and that could be readily done, inasmuch as the front part of the farm is very extensive. The rent for the remainder held by the Society would be only a trifle, and with the help which the Government would probably afford, the District of Quebec would find itself endowed with a Model Farm, which they anxiously have desired for a long

period. It would appear indeed that the time is come when the action of our Society should be felt in this District, and that it should participate of the grants of the Legislature. The Society began last autumn by Ploughing Matches. They ought not to stop after so good a beginning. The present opportunity is a good one if the Society desire to profit by it. I must add, however, that I took great care not to commit them before I had communicated with them on the business, so that their action is perfectly free. What I ask would only be that the matter should be taken into consideration on the 10th at the Meeting, and that you would be so good as to apprise me of the result.

I have the honor to be,

Sir,

Your most obedient and humble seryant,

HECTOR L. LANGEVIN.

P. S. The land is situated on the bank of the river. It is to be leased for seven years. If the Society resolve to lease it, the Model Farm might be under the direction of the Board of Agriculture, which in another communication I suggested to the Society to establish at Quebec.

H. L. L.

To the Editor of the Agricultural Journal.

Sir,—I take the liberty of enquiring through the pages of your valuable Journal, what the amendments were to the Lower Canada Act, passed last Session of the Provincial Parliament, —by answering the above in your next number, you will greatly oblige

Your most obedient servant,

A YOUNG FARMER.

St. Foy's, 11th February, 1852.

In reply to "A Young Farmer," we give below a copy of the Cause of the only Agricultural Act passed last Session, which consists of only a few lines. B. Taske, Esq., member for Rimouski, proposed another Act but it did not pass last Session.

"That it shall be lawful for each Agricultural Society, whether of a District, or of a County or division of a County, to fix such time during the course of any year for holding their Public Shows, as such Society shall deem best for the advancement of Agriculture. Anything in the sixteenth section of the said Act to the contrary notwithstanding."

RAILROAD ON THE NORTH SHORE OF
THE ST. LAWRENCE, FROM QUEBEC
TO MONTREAL.

We give with pleasure the prospectus of the proposed Railroad, and we would advocate its construction as a work that could not fail to be advantageous to agriculture, and to

the general prosperity of the country. We cannot expect Lower Canada to advance rapidly in improvement if we do not afford the people every reasonable facility of developing her fine natural resources. It is well known that there is a fine country on the north side of the St. Lawrence all the way from Montreal to Quebec, and that the inhabitants have not the necessary facilities for transporting their products to market. The steamers in the season of navigation, seldom stop on a voyage from Montreal to Quebec except at Sorel, Three Rivers, and perhaps Berthier, Becancour and Port St. Francis. In the winter, they are confined to their own means of travelling for all this distance of 180 miles. Notwithstanding that the River Hudson is navigated nearly the whole of the year by a large fleet of steamers and other craft, and these steamers seldom take more than from nine to twelve hours from Albany to New York, either ways, yet they have constructed Railroads all this distance upon the river banks, and we know from experience that the Hudson River steamers stop at a great number of towns and villages on their voyages for the convenience of the inhabitants. If we are expected to make rapid advances in improvement like other folks, we have to adopt the means that are required to accomplish this like other people. The completion of a Railroad, already commenced upon the south, and proposed upon the north shore of the St. Lawrence, would do more to advance the prosperity of Lower Canada, than can well be imagined at the present moment. There is not much doubt but these works will be complete, and we hope with as little delay as possible.

RAILROAD ON THE NORTH SHORE.

At a preliminary meeting of citizens favorable to the construction of a Railroad from Quebec to Montreal, held in this City on Saturday last, a project was submitted and approved of, and is as follows:—

PROJECT OF A RAILROAD FROM QUEBEC TO MONTREAL, ON THE NORTH SIDE OF THE RIVER ST. LAWRENCE.

Never was the question of Railroads more agi-

tated than at the present moment. The press of our own, and every other country, devote the greater portion of their columns to its advocacy. Everywhere those discussions are followed by results. Quebec only has as yet done almost nothing. The public mind is divided upon this grand question: instead of advancing, we retrograde. One day sees destroyed that which the preceding one accomplished. Whence this hesitation? Does it proceed from indolence, from want of capital, from ignorance of the true interests of the country? No! It proceeds from none of these.

The citizens of Quebec are fully sensible of the advantages which must necessarily accrue to their city from the establishment of a Railroad which will put it in direct communication with the rest of the world; but they are also aware that all will depend upon the first direction given to it. That if the point of departure be not established in the proper locality, they will have expended their energy and resources uselessly; that if, on the contrary, their first efforts be properly directed, their city must become the depot of the riches of the West, and one of the greatest sea-port towns in the world, as its harbor already is by nature one of the most magnificent.

Who can doubt, witnessing what occurs elsewhere, that before the lapse of many years, we shall have, not only a Railroad from Halifax to Quebec, and from Quebec to the extreme limits of Upper Canada, but also one extending to the very shores washed by the Pacific Ocean? Time and money will of course be necessary to the execution of this magnificent enterprise; but events follow each other in such rapid succession on this young continent, and credit may to so great an extent be substituted for money, that in a growing country where, in the course of a man's life, population and the value of property increase tenfold, we need not be afraid to draw upon the future. In order that this future may prove productive of advantage to Quebec, it is necessary that the Railroad, to which attention is now called, should terminate in Quebec itself.

It has frequently been asserted, that our city is situate on the wrong side of the St. Lawrence. This is an error. If she were situate on the opposite side, we should frequently have occasion to wish her on this. We are on the same side as Montreal, Kingston, and Toronto, as the whole of Upper Canada, and the greater part of Lower Canada. We can communicate without transshipment with nearly the whole of our country, and this is highly important for a Railroad. In a military and commercial point of view, few cities in North America are more advantageously situate than Quebec. Let us avail ourselves of this.

From the foregoing, it would appear evident that the principal efforts of the citizens of Quebec ought to be directed to the construction of a Railroad from their city to Montreal on the North side of the river. It is the only means of having the terminus in Quebec. It is the only

means of causing our markets to be plentifully supplied, in winter as well as summer, with a quantity of articles of too cumbersome a nature to admit of long carriage, or of being conveyed across the St. Lawrence in canoes: such as firewood, timber for the construction of ships and houses, building stone, hay, cattle, and numerous other necessaries, absolutely required to supply the demands of a large city. Population would be vastly increased by the greater facility that would be afforded of procuring the means of subsistence; and the value of property in the city as well as in the country would be enhanced in equal proportion. The magnificent rivers which intersect the north side of the St. Lawrence, would be employed in working innumerable manufactories, which cannot now be established for want of such an easy and economical means of transport as the Railroad would afford them. The St. Maurice forges, and divers other manufactories already in existence, experience considerable inconvenience and loss from the want of conveyance for their products during the six winter months.

Happily an enterprise of such great utility as this, does not present any serious engineering difficulties. It is generally admitted that the ground is eminently favorable to the establishment of a Railroad; it would intersect the richest and most populous portion of Lower Canada; the inhabitants on the south side would be extensively benefitted on a large portion of its route, as well as those on the north side.

The distance between Quebec and Montreal on the north side is estimated at about 150 miles. It is to be supposed that the Government would do for this route that which they have done for others of less importance—they might guarantee the funds to complete half the road. There would then remain 75 miles to be completed by the subscriptions of private individuals and Corporations. The probable cost of the road would be £3,000 per mile.* It is easy to prove, that in the States a large extent of Railroad (single track) did not cost more. We have here the ground, the iron, the wood and manual labor, at a rate cheaper than our neighbors pay for them.

Taking, then, 75 miles, at £3,000 per mile, as a basis, it would amount to £225,000. The Corporation of Quebec would certainly not refuse to contribute..... £100,000
 The divers Parishes and Corporations between this and Montreal, inclusively..... 90,000
 Individual Subscriptions, at Quebec and elsewhere..... 36,000

Total, £225,000

* In Pennsylvania, the *Schuylkill Valley Railroad* costs \$5,500 per mile (double track); the *Schuylkill Railroad* (double track) costs \$7,000 per mile; the *West Branch Railroad*; (double track) costs \$10,000 per mile; in New York, the *Saratoga and Schenectady Railroad* costs \$12,000 per mile.

If the different parties interested, would come to an understanding among themselves it would be easy to construct a branch line to connect the St. Lawrence and Atlantic Railroad at the most advantageous point, with the running between Quebec and Montreal.

The population on the north side of the river between Quebec and Montreal, that of these two cities included, is estimated at 250,000, at least. According to statistical information generally admitted, it has been found that each individual comprehended within the territory intersected by a Railroad, contributed, on an average, about ten shillings annually to the total revenue derived by the conveyance of merchandise and travellers over such Railroad. Therefore, 250,000 persons would occasion traffic to the amount of £125,000. The expenses of working the Railroad are estimated at one half of the gross receipts; which would leave the sum of £62,500 as interest and profit upon a total expenditure of £450,000 pounds, being equal to about 14 per cent. Supposing, now, the road to cost £4,000 per mile, the total cost of 150 miles would be £600,000, and the interest even then would be over TEN per cent. This would justify the expenditure of a much larger sum, especially if we take into consideration the supplementary traffic that would be supplied by Upper Canada, and by the south side of the River St. Lawrence.

It is to be supposed that the Imperial Government would be as favorably disposed towards the present enterprise, and to extend to it the same facilities which it intends to accord to the Quebec and Halifax Railroad; that is to say, money at 3½ per cent. It is impossible for it not to appreciate the advantages in a military point of view which would be derived from the establishment of a Railroad, which would link together the principal cities of Canada, and which would have, as a natural protection, on the only side on which it is vulnerable, a river such as the St. Lawrence.

The moment has arrived when it is necessary to pronounce in a definite manner upon these great questions, under the penalty of seeing other localities enjoy the advantages due to the City of Quebec. A public meeting of the citizens will shortly be convened, which will be the moment to put an end to all hesitation, and to enter at once upon all such measures as shall be deemed necessary, to carry into execution the present proposition, should it meet with public approbation.

Quebec, 9th February, 1852.

There are several selections, communications, and notices in type, which have to remain over for the next number.

TO DISSOLVE CONGULATED BLOOD.—Take grated root of burdock spread upon a rag, renew this twice a day.

AGRICULTURAL REPORT FOR FEBRUARY.

The month of February, although having a few fine days, was generally severely cold to the 22nd, hence giving us, up to this time, three months and a half of very severe winter, a circumstance which may warrant us to hope, that the worst of the winter is now over, and to anticipate an early spring. In a severe winter like the present, there must have been a large consumption of fire-wood and cattle provender; but, although the price of the former was high, that of the latter, particularly hay and straw, was extremely low, and by no means remunerative. These articles, where brought from a considerable distance, would not pay the labor, giving no consideration for the land. It must be some fault in the system of agricultural management when these products are forced on the market at such low prices. Farmers should not sell either hay or straw at prices that will not remunerate more than for the labor. There cannot be any more pernicious system of husbandry, than to take the produce of the soil to market and sell it for less than would pay a reasonable price for the labor. How can land be kept in good order under such circumstances? The crop is taken from the land, and actually given away, and thus robbed of the produce, and no return made to it. Farmers, by adopting a more judicious course, might avoid this ruinous system. Hay and straw might be kept over rather than press it upon the market to reduce the price so much below what is remunerating. It might also be fed to live stock and raising of horses, so as to pay better than at present market prices, and the land would not then be robbed, without giving it any return. The effect of a few loads over supply daily upon the market, reduces the prices to any figure the buyer wishes to pay. Any farmer who sells his hay, if of fair quality, at less than from five to six dollars, and straw from three to four dollars the hundred bundles, receives very little remuneration for his best land, indeed he is only devoting a portion of his farm to supply those articles to those who

may want them, without receiving any remuneration, except for the labor of cutting, saving, taking to market, and the city tax for weighing. This is no overdrawn picture, but a correct statement of the facts. At the present moment, the average prices are from ten to fifteen shillings per hundred bundles of hay, less than we have set down as a remunerating price; and for straw, the average prices are from seven to ten shillings per hundred bundles less. How are farmers to prosper under these circumstances. We may be told that the prices often exceed what we have stated as a paying price, but it is only in case of a very short crop, and never when there is an average crop. The value of hay for feeding live stock, compared with oats or other grain for the same purpose, is worth much more than it sells for, compared with the price of grain at present. This matter requires the serious consideration and action of farmers. It is not the interest of buyers that hay and straw should be so very low priced, but we do not blame them for purchasing them as low as they can. The fault rests with the farmers, who will travel from 20 to 40 or 50 miles with a man or two, and two horses, and sell the load or loads, they bring to market, for from 12s. 6d. to 17s. 6d. for hay, and from 10s. to 12s. for straw, the 100 bundles, and pay for weighing. The prices of other agricultural products are fair, and should be satisfactory to farmers, when we consider the prices in the British Isles. We again recommend to farmers to sow next spring a due proportion of barley, if they have soil fit for it. The price of this grain will not depend altogether upon Canadian Brewers and Distillers, as there is a market for it in the United States, although subject to a heavy duty on importation to that country, a large quantity is imported.

Oats and peas, also, would pay better than wheat, and these crops may be grown in perfection. We hope that some Black Sea Wheat will be imported this year for seed, direct from the Ports of the Black Sea. It

is very necessary that the seed should be renewed frequently, as it has been proved to degenerate here after a few years sown in succession. We take this opportunity to mention, that in our notice of the samples of wheat grown by Mr. Boa last year, of which that gentleman placed in the Rooms of the Agricultural Society, samples of both grain and straw, we omitted to state that the variety known as the Webster Wheat, was the least effected by either rust or fly, of ten samples grown by Mr. Boa. It is useful that these facts should be known, and we feel persuaded, that this variety of wheat will produce as heavy a crop as any wheat now cultivated in Lower Canada, but as to the comparative value of this wheat for making flour, we are not able to give any opinion. The prices of butchers' meat, cheese, and butter, are a fair average, and from present prospects, the prices of all Agricultural produce, with the exception of hay and straw, are likely to improve rather than decline. We scarcely know how to make out an Agricultural Report at this season of the year, and only endeavor to submit some hints that may be useful for the future. We regret that the regulations of County Agricultural Societies do not make it one of their conditions, that, in awarding prizes for the best managed farms, the successful competitor should be obliged to give a general report of his management of the farm, stock, crops, dairy, &c., before he would obtain, or even be awarded the prize. These Reports might be published, and the country generally might benefit for the money paid as a prize. Under present circumstances the prizes are paid, and the grounds upon which they are paid, are known only to the judges, and to the successful competitor. We would beg to enquire what advantage is this mode of proceeding to the country generally? The farmers of the country are utterly unacquainted with the mode of farm management that has obtained the prize as the best managed farm. Every agriculturist who inscribes his name as a Member of an Agricultural Society, and

more particularly those who take the management upon them, are under an obligation to do all in their power to promote the general improvement of Agriculture, and to employ all the means at their disposal to forward this object. No personal, sectional, or class interest should be allowed to have the slightest influence, but every act should be for the general good. The farmers of Canada have excellent machinery in our Agricultural Laws to commence with. We do not say that they have all that is required, but they certainly possess means of encouraging improvement that are not employed to the best advantage, or at least as advantageously as they might be.

We find it impossible to give Mr. Ossaye's Report in the present number, not having the translation in time, but shall give it in our next. Perhaps that as this Report, as well as that of Mr. Kierskowski, on "Associations of Agricultural Credit," were written and delivered in French at the General Meeting, it would be better they should be first published in French in the Agricultural Journal for March.

EXTRACTS.

How to get to sleep is to many persons a matter of high importance. Nervous persons who are troubled with wakefulness and excitability, usually have a strong tendency of blood to the brain, with cold extremities. The pressure of blood on the brain keeps it in a stimulated or wakeful state, and the pulsations in the head are often painful. Let such rise, and chafe the body and extremities with a coarse towel, or rub smartly with the hands to promote circulation, and withdraw the excessive amount of blood from the brain and they will fall asleep in a few moments. A cold bath, or sponge bath and rubbing, or a good run or rapid walk in the open air, or going up and down stairs a few times, just before retiring, will aid in equalizing circulation and promoting sleep. These rules are simple, and easy of application in castle or cabin, and may minister to the comfort of thousands who would freely expend money for anodynes to promote "nature's sweet restorer, balmly sleep."

FORCING FRUIT TREES TO BEAR.

With a sharp knife (the blade of a pen-knife is best) make a cut in the bark of the branch which is meant to be forced to bear, and not more than eight or nine inches from the place

where it is connected with the stem, or if it is a small branch or shoot, near where it is joined to the large bough, (three inches or less), the cut is to go round the branch, or to encircle it and penetrate to the wood. Care must be taken not to cut the wood, which would necessarily cause detriment to the branch or shoot operated upon. A quarter of an inch or nearly from the first cut, make a second in the same way round the branch or shoot, a ring is formed thereon a quarter of an inch broad between the cuts, the bark between these two cuts is now taken clean away with the small blade of a pen-knife, down to the wood, removing even the inner bark, which immediately lies on the wood, so that no connection whatever remains between the two parts of the bark, but the bare, naked wood appears white and smooth. But this bark ring, to compel the tree to bear, must be made at the time when the buds are strongly swelling, just before breaking out into blossoms; in the same year a callous is formed at the edges of the ring on both sides, and the connexion of the bark that had been interrupted is restored again without any detriment to the tree or branch operated upon by this simple though artificial means of forcing every fruit tree with a certainty to bear; this has been practiced in Europe for many years by the farmers in Germany who are the inventors.

To secure the fruiting of a tree, select a tree furnished with blossom buds, just as they are beginning to expand. Take a dung-fork, and with it make holes all over the space occupied by the roots, leaving the earth by pressing on the handle, and having dissolved one ounce of saltpetre in 3 gallons of water, fill the holes with a solution, no manure must be given. Should the tree, after stoning, appear unable to sustain the fruit, the following preparations may be applied in the same manner. To 1 gallon of blood add one gallon of water, and one ounce of potash. Stir the whole well together, and when it has settled down, pour off the liquid, and mix one gallon of this liquid with one gallon of water, and pour into holes already prescribed.

CERTAIN CURE FOR DIARRHŒA.—A certain cure for this complaint is found in rice water. Boil the rice, take the water, make it palatable with salt, and drink it copiously while warm. This simple beverage has never failed to have the desired effect.

When food is taken that causes oppression, the best remedy is hot water in which the rind of old cheese has been grated, to be drank freely. This simple remedy ought to be in possession of every family, as it will generally afford speedy relief. Some years since, a young lady died from the effects of eating fruit. A post-mortem examination was held, and some experiments were made. Nothing was found to have so good an operation on the contents of the stomach as grated cheese rind. Soon after, another lady was placed in a similar situation

from the same cause, her medical attendant prescribed the above remedy, and immediately relief was obtained.

FOR THE STING OF A BEE.—Apply spirits of hartshorn.

TO IMPROVE THE FLAVOR OF COFFEE.—To each pound of roasted coffee add forty or fifty grains of carbonate of soda. In addition to improving the flavor, the soda makes the coffee more healthy, as it neutralizes the acid contained in the infusion.

TO DESTROY FLIES.—It is perhaps not generally known, that black pepper is a poison for many insects. The following simple mixture is the best destroyer of the common house fly. Take equal portions of the fine black pepper, fresh ground, and sugar—say enough of each to cover a 7¹/₂ d piece. Moisten and mix it well with a teaspoonful of milk, a little cream is better, keep that in your room and you will keep the flies down. One advantage over other poisons is, that it injures nothing else, and that the flies seek the air and never die in the house, the windows being left open.

CURE FOR HYDROPHOBIA.—Let any individual, who has been bitten by a mad dog, observe the following simple directions, and there will be no need of cutting and burning the wound, nor of fearing hydrophobia.

1st.—Burn some oyster shells to lime, let them be well bruised and sifted through a piece of fine gauze or muslin.

2nd.—Take for an adult, two table-spoonsful (heaped measure) of this sifted lime, and mix it up with eggs until it is of the consistency of batter for pancakes. Fry it in a pan, into which has been put a piece of fresh butter, or some sweet oil.

3rd.—The pancake thus prepared, to be eaten in the morning before any thing else, and neither food nor drink to be taken for six hours afterwards, when the usual diet may be taken.

4th.—Three such cakes are to be taken in the same manner, on three alternate mornings.

TO STOP VOMITING BLOOD.—Take two spoonsful of nettle juice; this also dissolves blood coagulated in the stomach.

2nd.—Take as much saltpetre as will lie on half a crown, dissolve it in a glass of cold water two or three times a day.

SPITTING BLOOD.—Take three spoonsful of sage juice in a little honey, this presently stops either spitting or vomiting blood. Or take 20 grains of alum in water every two hours.

FOR BILES.—An equal quantity of soap and brown sugar well mixed.

2nd.—A plaster of honey and wheat flour.

TO DISSOLVE WHITE OR HARD SWELLING.—Hold them morning and evening in the steam of vinegar, poured on red hot stones.

2nd.—Apply the leaves of alder on the swelling, and when dry apply fresh leaves; the leaves will require to be changed very often.

PROVINCIAL MUTUAL AND GENERAL INSURANCE COMPANY.

OFFICE,—CHURCH STREET, TORONTO.

INSURES in its MUTUAL BRANCH, Farm Property and Detached Buildings,—all extra hazardous Risks being excluded.

The PROPRIETARY BRANCH includes Fire Insurance generally, as well as Inland and Ocean Marine Insurance and Life Insurance.

WILLIAM EVANS, Jun., Agent for Montreal, will receive applications for Insurance, in writing, addressed to him at his residence, Côte St. Paul, or left for him at the hardware store of **J. Henry Evans, Esq.**, St. Paul street, Montreal.

AGRICULTURAL WAREHOUSE.

THE Subscriber has constantly on hand, Samples of various kinds of AGRICULTURAL IMPLEMENTS, among which will be found, Ploughs, Cultivators, Seed Sowers, Straw Cutters, Corn Shellers, Subsoil Ploughs, Vegetable Cutters, Thermometer Churns, Horse Rakes, &c. &c. Expected by the opening of the Navigation, a large assortment of *Cast Steel Spades and Shovels, Cast Steel Hay and Manure Forks, Hoes, &c., &c.*

Agent for Sale of **St. Onge's Patent Stump Extractor.**

P. S.—Any kind of Farming Implements furnished to order, on the most reasonable terms.

GEORGE HAGAR,

103, St. Paul Street

Montreal, 1st April, 1851.

IMPORTANT TO FARMERS.

THE Subscriber offers for sale the following seeds:—

- 7,000 lbs. Dutch Red Clover,
- 1,000 do. French “ “
- 3,000 do. Dutch White “
- 500 do. Shiromy's Purple Top Swedish Turnips,
- 500 do. East Lothian “ “ “
- 200 do. Laing's Improved “ “

The above varieties of Turnips warranted from Rape.

- 400 lbs. Mangle Wurzel,
- 100 do. French Sugar Beet,
- 200 do. Aberdeen Yellow Turnip,
- 200 do. White Globe Turnip,
- 200 do. Belgim White Field Carrot,
- 200 do. Attringhasor “ “
- 200 do. Long Orange “ “
- 100 do. “ Surry “

The Carrot Seeds are the growth of Canada, from the Subscriber's Nursery Ground.

—ALSO,—

His usual supply of English and French Garden Seeds.

GEORGE SHEPHERD.

Nursery and Seedsman to the Agricultural Society of Lower Canada.

March 1st, 1852.

LOWER CANADA AGRICULTURAL SOCIETY,

Office and Library at No. 25 Notre Dame Street, Montreal,

Over the seed-store of **Mr. George Sheppard**, the seed-man of this Society,

THE Secretary and Treasurer of the Society is in attendance daily, from ten to one o'clock.

The Library has already some of the best works on Agriculture. Also, the Transactions of the Highland and Royal Irish Agricultural Societies, the London Farmer's Magazine, the Transactions of the New York State Agricultural Society, and many other British and American Agricultural Periodicals which are regularly received. The Agricultural Journal and Transactions of the Lower Canada Agricultural Society, both in English and French are to be had at the office from the commencement in 1848, up to the present.

All communication in reference to the Agricultural Journals from the first of January, instant, to be addressed post-paid to **Wm. Evans, Esq.**, Secretary of the L. C. A. S. and Editor of the Agricultural Journals.

Members of the Lower Canada Agricultural Society are respectfully requested to pay up their annual subscriptions immediately.

Wm. EVANS,

Secretary and Treasurer, L. C. A. S.

1st January, 1852.

Copies of **Evans' Treatise on Agriculture**, and the supplementary volumes both in English and French to be had at the office of the Society with complete files of the Lower Canada Agricultural Journal for the years 1844, 1845 and 1846.

MATTHEW MOODY,

MANUFACTURER OF

THRESHING MACHINES, REAPING MACHINES, STUMP AND STONE EXTRACTORS, ROOT CUTTERS, REVOLVING AND CAST-STEEL HORSE RAKES, PATENT CHURNS, WAGGONS, &c. &c. &c.

THE Subscriber has been employed since 1846 in manufacturing his improved **THRESHING MACHINES**, with Horse power. He was awarded the highest Prize at the Terrebonne County Exhibition after competition with many others. They have threshed and cleaned, with 2 horses, from 100 to 124 minots of Wheat per day, and from 200 to 250 of Oats, and have given universal satisfaction. He guarantees all purchasers for any recourse by **Paige & Co.**, of Montreal, who allege having a patent for these machines, dated December, 1848! and warrants them equal to any made here or elsewhere, for efficiency and durability.

One of his Reaping Machines may be seen at **Kerr's Hotel**, St. Lawrence Street, price £25.

Having lately erected new and enlarged Works for the above articles, he will execute promptly all orders in his line.

Threshing Mills constantly on hand. Two second hand Mills, in warranted order, cheap for cash.

Threshing Mills repaired, and finishing work done.

Agency in Montreal, at **Iadd's Foundry, Griffintown**; in St. Andrews, L. C., at **Mr. Henry Kempley's**.

MONTREAL.—Printed by **JOHN LOVELL**, St. Nicholas Street.