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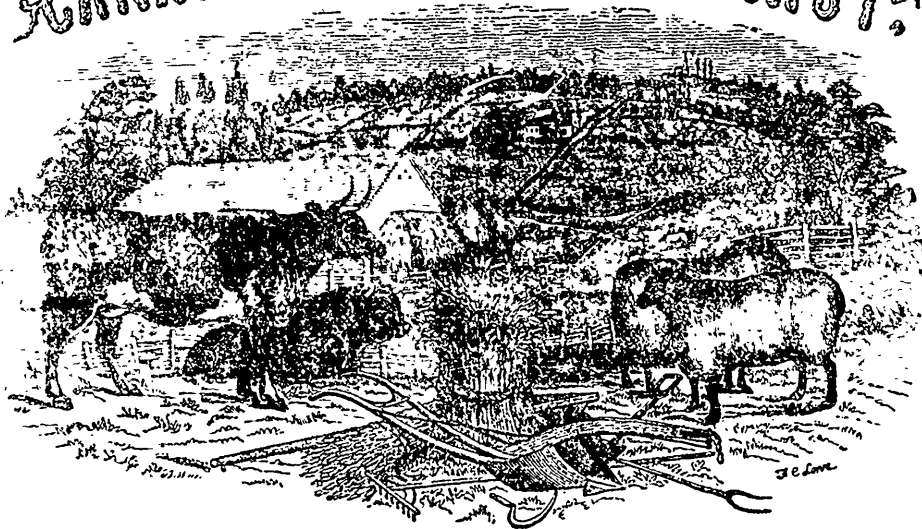
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# CANADIAN AGRICULTURIST.



“The profit of the earth is for all; the King himself is served by the field.”—ECCLES. v. 9.

GEORGE BUCKLAND, }  
WILLIAM McDougall, }

{ EDITOR,  
{ ASSISTANT EDITOR

VOL. III.

TORONTO, SEPTEMBER, 1851.

No. 9.

## The Canadian Agriculturist.

Published Monthly, at Toronto, C. W.

### TERMS:

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### THE APPROACHING PROVINCIAL EXHIBITION.

Our readers are doubtless aware that the next  
annual Exhibition of the Agricultural Associa-  
tion of Upper Canada will take place at Brock-  
ville, on the 24th, 25th and 26th of September;  
when a large gathering is confidently anticipated.

The local Committee are actively engaged in  
preparing the ground which is situated on an  
eminence, but a few minutes walk from the  
steam-boat landing, and commanding extensive  
and picturesque views of the St. Lawrence, with  
its numerous islands, and the surrounding coun-  
try. Arrangements have been made with steam-  
boat proprietors on the lake and river to carry  
passengers at half price, (meals extra) and the  
same has been done with the Ogdensburgh rail-  
way, and also, we believe, with the lines that  
connect with it. A large number of American  
visitors is expected, with stock, implements, &c.  
and the same observation applies to Lower Ca-  
nada; Brockville being very conveniently situa-  
ted as regards that section of the Province.  
Stock, implements, &c., from the United States  
for the purpose of exhibition, will be admitted  
duty free, and every facility will be given for the  
transaction of business; of which we anticipate

a considerable amount being done. We know several parties that intend taking stock, &c., for sale, and others who contemplate purchasing; so favorable an opportunity of doing either, can only occur at the Provincial Fair. We trust to the patriotism and love of advancement among Upper Canadians to give practical proof at the approaching exposition of our skill and industry, of what our people and country are capable of producing. The good work has been earnestly and auspiciously commenced. We have had already several highly creditable exhibitions, which have attracted attention abroad, and have promoted, in many ways, improvement at home. There must now be no halting on the way;—onwards should be our motto, and the advancement of our country in those things which constitute its wealth, happiness and unfading glory, will be the certain result. The premium list embraces a wide range; comprising all the industrial arts practised among us, not overlooking even those which more exclusively belong to the higher developments of civilization; imagination, adornment and taste. We hope, therefore, to see, as heretofore, ladies and artists contributing their labors with those of farmers and mechanics in aiding the progress of a young country, pregnant with hope and promise. When it goes forth to the world that we offer in premiums no less a sum than £1,200, people at a distance will begin to think that Upper Canada, after all, must possess advantages that have been hitherto but very imperfectly understood. And so it has been, as we trust the Exhibition at Brockville will satisfactorily prove.

We have much pleasure in giving the publicity of our circulation to the following announcement, and hope that the example will not be lost sight of on future occasions. The donor, we understand, is William Mathie, Esq., of Brockville, one of the Vice Presidents of the Provincial Association.

“Private premiums will be awarded for the following productions, of the united counties of Leeds and Grenville, at the Provincial Exhibition, September, 1851: for the best sack wool of one cwt., shorn from sheep raised by owner, £3; for the best bundle flax, of one cwt., grown by the owner, £3; for the best fourteen kegs or tubs butter, of not less than 75 lbs. each, made in the same township, by seven farmers clubbing,

each farmer two kegs or tubs, equal to £1 per keg or tub, £14. The above must be *bona fide* productions of the united counties of Leeds and Grenville; and the successful competitors must give, in writing under their signatures, a brief and correct statement of their respective articles:—The Sheep from which the wool is shorn; namely the breed, the age, and mode of keeping during the winter. The Flax, when sown; how much seed to the acre; quantity raised on the acre; when pulled, and the probable cost of raising an acre of flax. The Butter, the breed and number of cows milked; how kept in winter; kind of milk dishes used; how churned; how washed; what kind and quantity of salt used; how packed, and name of cooper making packages. The Judges appointed by the Exhibition Committee on such articles will decide upon the above, and the money paid upon their written decision, with the statement named being handed to

D. WYLIE,  
Secretary to P. A. Comm<sup>y</sup> itee.  
Brockville, July 1851.”

#### DESTRUCTIVE EFFECTS OF FROST ON THE ROOTS OF HOPS.

We witnessed a phenomenon the other day, which no experience, even of a Canadian climate, had led us at all to expect. The destruction of wheat, and most of the cultivated plants, either of the field or the garden, by severe cold, particularly in the spring, is what we are accustomed to witness, more or less, every year. But we should have thought the hop plant, which has a number of perennial, hardy, woody roots, extending several feet below the surface of the ground, would be proof against frost, particularly where the hill was formed by earth into a small mound. We saw, however, the other day, in the County of Prince Edward, three or four gardens, in each of which several hundreds of hills were completely killed, by the severity of last winter. The destruction was precisely in those situations that had a ridge, or convex form of the surface, from which that natural, and usually efficient protector,—snow, had been driven off by the wind; a change that was followed by several days and nights of the most intense freezing. As the snow came last winter in large quantity before the ground got frozen, the sap of the hop roots, under a comparatively warm temperature, would continue more than ordinarily thin and active; and the sudden transition of temperature, occasioned by the removal of the snow, was the cause of the effects before stated.

We would strongly recommend to hop-grow-

ers, the conformation of whose plantations renders them liable to this kind of winter exposure, to spread over the surface, particularly on and around the hills, a slight covering of rough dung, or any kind of litter or straw, before winter sets in. Indeed this would be an equally good precaution for wheat, as far as it is practicable. A slight covering even, of a non-conducting substance, will frequently prove an effectual preserver of vegetable life under very rigorous skies, and by its gradual decomposition will become converted into food for the plant. The destruction of crops by "winter killing," as it is called, sometimes occurs to a very serious extent. In the county before mentioned, we saw hundreds of acres of winter wheat that had been quite destroyed, and the blanks filled up with spring crops. In the case of hops, the vacant hills had to be replanted, producing no fruit of any consequence the present year, and not a full crop even the next; the loss therefore being very great. From the peculiar character of the present summer, we should expect the hop-crop in Canada will prove short, and not of the finest quality; and the latest accounts we have received from England, represent hops as being seriously injured by the attacks of aphides, which in that country sometimes produce a total blight. Prices, therefore, will probably rule high.

#### THE CULTIVATION AND PREPARATION OF FLAX.

The subject of an extension of flax culture is now receiving the closest attention not only in Ireland, but in many parts of England and Scotland. It appears that the demand for linen manufactures is rapidly extending, while the supply of cotton, at least from the United States, would seem to have reached its maximum, and will probably fall, before long, very short of the actual requirements of the manufacturer. Public attention is now being turned to flax, not as a substitute, but rather as an *auxiliary*, to cotton; and should the experiments now being made in England on a rather extensive scale, in working up the flax fibre upon the ordinary machinery used for cotton, woollen or silk, prove generally

successful,—and of this there is, so far, every reason to hope,—the most important advantages both to agriculture and manufactures, may be confidently anticipated.

That the soil and climate of many parts of Canada are well suited to the growth of flax admits not of a reasonable doubt; the chief impediments, that have hitherto operated in this country—and also, it would appear,—although in a less degree, in the British Islands, to an extensive cultivation of this valuable article have been the difficulty of preparing the fibre and the want of a constant market, at a remunerating price. These objections however seem likely to be speedily removed, by the adoption of improved processes and new and cheaper machinery in the preparation of the fibre; and a progressively increasing demand for its manufactured products, in various parts of the world.

We agree with a correspondent in another column, whose opinion on matters of this kind is entitled to every attention and respect, that this is a subject which legitimately falls within the province of our newly appointed Board of Agriculture; and we have no doubt but that body will give the matter early and proper attention. *The Canada Company*, with their wonted discriminating liberality, have announced two premiums for 1852, in connection with the Provincial Agricultural Association; one for *Flax* and the other for *Hemp*; and we have no doubt but the Association will second this patriotic effort. The Company's munificent prize for wheat, during the last four years, has produced already a marked improvement in this important grain; a production in which Upper Canada stands unrivalled on the American continent. May we not therefore reasonably expect that by the employment of similar means, like beneficial results may be obtained in regard to flax and hemp?

We have made these few introductory observations with a view of bringing before our readers, in this and succeeding numbers, some extended extracts from an interesting pamphlet, recently published in England, by the Chevalier Claussen, who by his mechanical ingenuity and indomitable perseverance has already introduced

what may be truly denominated, a new era in the preparation and manufacture of flax. We take for the present the section on the

#### OBJECTIONS TO THE GROWTH OF FLAX CONSIDERED.

It may very naturally be asked, Why, if the cultivation of flax be so advantageous, it has not been more generally carried out in this country? The answer to such an inquiry may readily be found in the difficulties which have hitherto existed with respect to its preparation; and the uncertainty of the market for the produce when so prepared. Objections, founded on the character of the crop, and the comparatively high prices of wheat secured to the grower, have also, no doubt, had some influence in preventing the cultivation of a plant which was considered to be highly exhaustive, and which had not the advantage of a protective system. With regard to the latter of these causes, recent changes in our commercial policy, of the propriety of which no opinion is here expressed, have, however, now placed the flax and the corn crops upon the same footing, and the agriculturist in this altered state of circumstances, will doubtless devote himself to the production of any article that promises an adequate return for his labour and capital. The advantages resulting from the growth of flax, as compared with other crops, will be treated of in a subsequent portion of these pages.

But a very general belief appears to prevail among our agriculturists, that flax is an exceedingly exhaustive crop. The opinion is one which has been handed down almost from time immemorial, and the clauses which in many cases are introduced into the agreements and leases for agricultural tenancies, forbidding the culture of flax, hemp, and woad, have no doubt tended to strengthen this conviction in the minds of those who have not possessed the opportunity of practically testing the truth of this very current opinion. It is most undoubtedly true that flax, in itself, like all other crops, whether cereal or others, is certainly an exhaustive one: few crops are, however, more exhausting than wheat; but the farmer does not refuse to grow it on that account, as he knows that a great proportion of the crop is usually returned to the soil. Now, there are two modes of testing the accuracy of the opinion with respect to the injurious effects of the flax crop, viz., by chemical analysis of the constituents of the plant, and by that still more satisfactory and convincing test—the result of practical experience. Tried by either or both of these, it will be found, under a judicious mode of treatment, analogous to that pursued by the grower with respect to his other crops, that flax, so far from being an injurious, will be found, independently of its other advantages, to be of greater value than any other crop in keeping the land in a profitable state of productiveness, and preventing the possibility of its deterioration.

If the construction of the plant be closely examined, it will be found that those portions of it which absorb the alkalies, and the nutritive properties of the soil, are those which are not required for the purpose of manufacture, viz., the woody part of the plant, the resinous matter, and the seed. The capsules of the seeds, the husks of the capsules, and the seeds, contain a very large proportion of nitrogen and phosphoric acid, and may consequently be advantageously employed for the purposes of manure or for the feeding of cattle. The fibre of the plant, which is that portion required for manufacture, consists of about 47 parts of carbon in 100, united to the elements of water—in fact, oxygen, hy-

drogen, and carbon are its principal constituent parts, and they are derived not from the soil but from the atmosphere. 100 lbs. of flax fibre has been found by recent experiments to contain not more upon an average than 2 lbs. of mineral matters, including lime, magnesia, oxide of iron, carbonic, phosphoric, and sulphuric acid, and silica.

In cases where in the course of preparation of the flax, the seed and the whole of those portions of the plant which have absorbed the nutritive matters from the soil, are destroyed by steeping, and where nothing is left to be returned to the soil, there can be no doubt that the crop is an exceedingly exhaustive one; and in the present advanced state of agriculture, it would be a vain and absurd attempt to endeavour to induce the farmer to grow flax upon such conditions. The last report of the Royal Irish Flax Society gives some particulars of the flax crops of fifty-one farmers in the county of Down, not one of whom saved the seed; and although the average gain was £7 1s. 4½d. per acre, their example is one which is not likely to be very generally followed by enlightened agriculturists.

But apart from the deductions of chemical science, or theories founded upon the structure of the plant, the recent proceedings of the Royal Agricultural Society have completely set the question at rest. Mr. Beale Brown, who has devoted the last seven years to the culture and preparation of flax in the county of Gloucester, stated at the meeting of the society on the 26th of February, that flax, deriving as it did, a large amount of its nutriment from the atmosphere, was the least exhausting crop that could be put into the ground, provided the manure from the seed and refuse were retained on the land, and only the flax fibre itself carried off; and he had reason to believe that this opinion was now entertained by all parties connected particularly with the cultivation of the flax crop.

Mr. Druce of Ensham in Oxfordshire, also stated that flax was not an exhaustive crop; that he grew turnips in the same year on his flax land without manure, and that his son had found that some wheat sown after flax, was one of the best crops he had ever grown. In Somersetshire it is a standing proverb that "good wheat crops always follow flax." Lord Monteaigle also gave the result of his own experience, in connection with the growth of flax upon his land in Ireland, and said that some of the land which he had sown with it, had been previously rather exhausted, but by cultivating the crop well, that land had become better than any other on his estate; no meadow indeed, yielded such capital grass as that on which the flax had been grown.

The opinions of Sir Richard A. O'Donnell, one of the largest flax-growers in Ireland, and of Mr. Warnes, who has paid great attention to the subject in the county of Norfolk, were also stated in a paper read before the society by Mr. Edward M'Dermott, a copy of which will be found at page 29.

A third great obstacle which has hitherto stood in the way of an extended cultivation of flax, has been the great trouble and annoyance to which the farmer has been compelled to submit, in order to prepare his produce for the market. The Royal Irish Flax Society has laboured strenuously to encourage and promote improvements in the processes of steeping the flax. It is unnecessary here to refer to the various modes of steeping hitherto adopted, or the imperfections and difficulties which they present to the grower, as the reader will find them very clearly stated in subsequent pages.

The reluctance and growing disinclination to cultivate flax even in Ireland, which is traceable, to a cer-

tain extent, to the difficulty connected with its preparation, is most strikingly shown in the fact, that a society established in that country in 1841, for the purpose of promoting and encouraging the growth of flax, which numbers "among its members, the nobility and landed gentry on one hand, and on the other nearly all the individuals engaged in the spinning of yarn and manufacture of linen, with a considerable proportion of the wealthy English and Scotch flax spinners," which for the last three years has been backed by annual grants of the public money, and which has devoted "ten years of unremitting exertions" to the subject, has, so far from being enabled to accomplish the object for which it was formed, that it has not been able to arrest the decrease in the cultivation of flax in Ireland, from 33,000 acres in 1841, to 60,000 in 1849. This rapid decrease of flax culture has also taken place contemporaneously with an increase, unparalleled in the history of the linen manufactures, the raw materials to supply which have been obtained from the foreigner instead of the home producer.

The Royal Flax Society has done all in its power to produce a different result. Every improvement in the mode of steeping, or in the after-treatment of flax, has received some share of its attention; and directions of the simplest and plainest character have been widely distributed over the country, for the purpose of enabling the grower to avail himself of the advantages which it offered.

The society has also, with the most ready zeal, come forward upon the bare announcement of any plan, by which the grower could be relieved from this obnoxious process, and which it conceived was, therefore, calculated to mislead the public, and denounced the ignorance and folly of those who supported it. Indeed, so great has been the vigilance and care exercised by the society, that their condemnation has, in several instances, preceded investigation. At a meeting of the County of Cork Flax Association, the subject of a new mode of preparing flax, by which the grower would be spared the trouble of steeping, was referred to by one of the speakers, when Professor Murphy, who attended on the part of the parent society, said, that "the Flax Society had reported against the process, and were then going to investigate the matter." Despite all these laudable exertions, however, the cultivation of flax has greatly fallen off, and instead of that lively interest which it would have been desirable to have seen displayed on the subject by the cultivators of land in Ireland, there appeared, up to a very recent period, when the probability was announced of new markets being opened for the produce, a determination on the part of some of the principal growers, to discontinue altogether the growth of flax. This feeling of apathy on the subject is not confined to the growers of flax merely; but it is also to be regretted that, even among the supporters of a society calculated to be of such great service to the country, the same feeling very generally prevails, as is evidenced by the fact of the decrease in the amount of subscriptions and donations, during the last as compared with previous years. Although many instances might be quoted to shew, that considerable profit and advantage would result to the grower from the preparation of his flax by the ordinary mode of steeping, still the great inconvenience and trouble attendant upon the process would prevent that general cultivation of the crop which it would be desirable to witness in order to secure for our agriculturists and manufacturers that amount of independence of foreign countries for the supply of the raw material which they do not at present possess. It is vain to expect any increased cultivation of flax while such a state of

things exists as that described by M. Peyen, the celebrated French colonist, who was last year sent over by the French Government to report upon the subject of flax-cultivation in Ireland. "While personally inspecting," says that gentleman in his report to the Government, "from the 15th to the 20th of Sept., the flax fields in Ireland, I found all the inconveniences of the old system of management in a high degree of intensity, in the serious inconveniences of the watering in stagnant pools and of the spreading of the putrid products of this most disagreeable operation, diffusing abroad insupportable exhalations." It will be shewn presently that by the use of machinery of a very simple and inexpensive character,\* that the grower of flax may be spared all this inconvenience, and be enabled to send his produce to a certain and remunerative market, without the necessity of steeping it, and may also avoid those evils which, under the flax factorship system recently introduced into Ireland, have inflicted so much injury upon the flax cause, and discouraged many of the warmest of its friends in that country.

But a fourth reason, why notwithstanding the profitable nature of the crop, flax has been grown to so small an extent, is to be found in the uncertainty of the market which has hitherto existed for the article. Several striking instances are given of this in the report of the proceedings before the Royal Agricultural Society already referred to. Lord Montague, who attended the meeting as one of the members of a deputation from the Royal Irish Flax Society, in referring to his endeavours to cultivate flax on his home-farm as well as upon those of his tenantry in the south of Ireland, said,

"He had been induced, more to restore the growth of flax in that part of Ireland than to introduce it, as the cultivation had ceased on account of the want of markets for the produce. His tenants, too, were induced to join in the cause, as well as Lord Devon and other influential landowners of the district. They all succeeded, grew good flax, and the specimens received the favourable notice of the Flax Society, his lordship's being valued at £63 only at that time on account of the lowness of prices, but which would now fetch £100. His tenants did not, however, succeed so well as himself; they could not transport the flax in its bulk, they had no water power, and he was unwilling to erect steam-power till assured of a market; the consequence was, that he had to take all the flax off the hands of his tenants, so that at that time he had more stacks of flax than of wheat on his farm, with no means of turning them to account."

Several other growers of flax in England made similar complaints. Mr. Hammond of Norfolk, said, that not finding any market, he had thatched several of his cottages with the straw, and a more beautiful thatch he never saw. Mr. Fuller, M.P., had also grown flax in Sussex, but had "no better success in getting it off his hands; and when he offered it to a large manufacturing house, he was told they could only give him linen in return for it." At a subsequent meeting of the Agricultural Society, on the 12th of March, Mr. Fuller laid before it his balance sheet of the cultivation of flax, from which it appears that he had succeeded in selling his flax in the straw—the produce of one acre—for £3; and that his profits, upon the one acre, was £8 6s. 0d. The value of the seed alone—24 bushels, at 8s. a bushel—was £9 12s. 0d. Mr. Shelly also stated that in Sussex it could not be turned into money; there was no difficulty in farmers growing flax, the only difficulty being to get a market for it; if it could be made a marketable article, there would be no want of growers.

\*This machine may be seen at 26, Gresham-st., London.

## F L A X .

*To the Editor of the Canadian Agriculturist.*

SIR,—

In these days of free trade progress when we encounter its operations even in the wilds of Canada, and when the palmy days of a dollar per bushel for wheat takes its place among the records of the past, it becomes needful to cast about for all fair and possible means of recovering lost ground. Various schemes suggest themselves to our consideration of which I shall only at present advert to one, that is the introduction of new agricultural products suitable to our soil and climate, and easily attainable by Canadian farmers:—

The culture of Flax forms an important item in this class. By an ingenious combination of chemical and mechanical sciences Chevalier Claussen has succeeded in converting flax into a very fair sample of cotton wool, well calculated to form an important adjunct, if not a perfect substitute for that article in various manufactures. No man will deny that flax may be readily grown, with ordinary care, upon any farm in Canada, and with average crops, it is equally certain that profitable returns will result. The introduction of this plant into our rotations, deserves our best attention and will be productive of the happiest effects. How difficult do we find it to raise turnips upon anything like an adequate scale, and who cannot testify to the loss occasioned by the absence of that precious root? In rearing and fattening live stock, a cheap and abundant supply of oil cake in combination with the offal of our flour mills, will go far indeed in supplying the blank and in improving the quality and supply of animal food and of dairy produce in our markets. It is also perfectly evident that by a free use of oil cake our farm yard manure will swell in bulk and improve in quality to an extent which it would be difficult to estimate, and which by its natural tendency to raise the amount of grain per acre, will in some measure compensate the farmer for reduced prices and enable him to meet the change of times.

My object at present being only to awaken attention, I shall refrain from entering upon details. The Canada Company with wise and patriotic energy have entered promptly and zealously into this important subject, and already premiums from that body have been announced. It is consistent with my own knowledge that every facility and encouragement will be afforded by the Directors; and there can be no doubt that a like spirit will actuate our own Board of Agriculture. It is probable that at the earliest

meeting of the Board, arrangements will be made for testing in a satisfactory manner, the expense and returns of raising flax upon a portion of that land, so handsomely placed at the disposal of the Board, by the University Council, and which will be open and accessible to all the farmers of the Province to inspect.

Before concluding I may add, that a mass of useful and valuable information will be found in a small pamphlet published by Chevalier Claussen and to be procured from Messrs. Armour and Ramsay, Toronto.

I remain, Sir,

Yours, &c..

ADAM FERGUSSON.

MR. TYE'S REPLY AND CHALLENGE TO MR. PARSONS  
ON THE RELATIVE MERITS OF DURHAM AND  
DEVON CATTLE.

*To the Editor of the Canadian Agriculturist.*

SIR,

Your remarks on my query, form by no means so satisfactory an answer to it, as Mr. Parsons, in his letter in your last number, would imply. I wished to know why more premiums were allowed to Durham, than Devon and Hereford cattle; these being the breeds allowed the higher awards at the Royal Agricultural Society in England.

Surely it is not because a few individuals of high standing and influence, imported Durham cattle in the first instance, they being then considered the most fashionable breed; it is probable most of these gentlemen came from counties where Durham are propagated, and are ignorant of the qualities of other breeds. I contend that to improve a native stock, is to introduce male animals of some similarity, altho' superior; for in no other way can the progeny be depended on. No experienced breeder would recommend more than one cross with the Durham and native, for with animals so decidedly opposite in character, nothing afterwards but a mongrel brute could be expected. I would as soon expect it might be recommended to breed from half-bred Down and Leicester sheep.

I do not conceive that Durhams being larger in quantity deserve this preference, when it is ascertained that other breeds are better adapted to the colony; and this opinion is rapidly increasing, both here and in the States. At the two shows—those of Buffalo and New York—I observed the *Devons* not only the most numerous, but fetched the higher prices. My friend,

Mr. Parsons, would have written very differently had he had as much experience in Devon as in Durham cows. That the latter may give more milk, I admit, but not in proportion to their size. As to the seven-eighth cows purchased of me, it is clear I never represented them as such; as it is certain I did not breed one of them, my own rearing are sold at very different prices. It is well known that no cows, (excepting those from the Channel Islands) produce so much cream from the same quantity of milk as Devons. It appears to me an absurdity to say that a large animal does not require longer, and richer pasture, than a small one. I am aware of the great aptitude to fatten, and the fine form of the Durham cattle; I also know, as may any one else by referring to the Smithfield reports, that the beef from them does not make so much by nearly a penny per lb., as from some smaller breeds;—there may not be that difference here—in winter, altho' there is, at the present time, one dollar a hundred;—this I will prove, if required, any day during the warm weather, either in Toronto or Hamilton. It appears that the first prize was awarded to a Devon fat ox, last Smithfield cattle show; and the Durhams were, (to use a sporting phrase,) no where.

I have no wish to detract from the favourite stock of Mr. Parsons, and many other gentlemen; that the Durhams are a beautiful race of animals, no one can deny, and useful too, when raised in a climate and on a soil adapted to them; that they do not answer for breeding in many counties in England, is also well known. Send them to Ireland and see what their offspring will be in a few years! I do not flatter myself I can convince the admirers of Durhams; particularly those brought up in counties where they are bred, that they are not *the* superior stock; such persons do not, or will not, know other breeds. This reminds me of an intimate friend of mine at a fair in Surry; for altho' there were many thousands of cattle and sheep, he could not see them; in fact, there were neither Durham cattle nor Leicester sheep; he in consequence sent to his brother, Mr. John Grey, of Milford Hill, Northumberland, an eminent breeder; for a drove of both Durhams and Leicesters;—one year, however, convinced him that Down sheep and hardier cattle were best suited to his location; and the reason why the latter only were shewn on sale at the fair before mentioned. If in England, Hereford and Devon cattle are considered worthy of as high premiums as Durhams, with her milder climate, richer pastures, and though last, not least, abler means; all these essentials being more necessary for the latter kind, why do the

Directors of the Provincial Association, shew a preference not allowed by the Directors of the Royal Society of England?

I have answered Mr. Parsons' letter as concisely as possible, for "*Augustus*" had, in fact, sufficiently explained it away, even before it appeared. The sort of cattle named under the above signature, I think likely would please many persons in this country, more than the higher bred north Devon, being of larger size, and, without question, the best working cattle known. I would like to see a yoke of them, ploughing against a yoke of thorough-breds, either of the milking or fattening family, I don't care which!

I am, Sir,

Your obedient servant,  
DAN'L TYE.

Wilmot, Aug. 7th, 1851.

*To the Editor of the Canadian Agriculturist.*

[The following Communication has come to hand since the foregoing was in type.]

SIR,

My letter of the 7th having been posted too late for the last number of the "*Agriculturist*," you will oblige me by inserting this one as an addendum and I will not trouble you, or your readers, further.

The frank and able communications from your correspondents Messrs. Farmer and Allen, must not only add to the use and interest of your publication, but also to its circulation. I should, had I not written in haste made an observation similar to the latter gentleman as to premiums for native cattle; in my opinion a most important suggestion, if it would cause farmers to take more care, and use more judgment in breeding them. I would advise the taking off some of the premiums from the ornamental Durham, and give them to the useful.

There appears to be an impression that Durham cattle mature much sooner than any other kind. I will therefore, for a small stake—say five pounds—shew four two years old heifers (calved in April 1849) against any four of a like age, Mr. Parsons can produce, the property and breed of one person—mine to be of the best quality, and the fattest. Show to come off in Galt, any day Mr. Parsons will fix previous to the State Fair at Rochester. Judges to be butchers.

I care not how the Durhams were fed in winter, if even on dollar notes, as I heard a gentleman in Toronto say was the food necessary for



them. My heifers were never housed, and had merely oat straw.

I am sir,

Your obedient servant,

DAN'L TYE.

Wilmot, August 13, 1851.

MR. SOTHAM'S CHALLENGE ON THE COMPARATIVE MERITS OF HEREFORD AND SHORT-HORN CATTLE.

Black Rock, N. Y., Aug. 21, 1851.

MR. EDITOR,

I read Mr. Parsons' letter on short-horns, and must say, I never saw so long a letter with *less proof*. I am perfectly willing to enter into a controversy with him on this subject, but I feel the public in the State of New York have been so much *cattle-puffed* by editors and breeders, that I had made up my mind to keep entirely silent on the subject, and leave the Herefords to speak for themselves; the time will come when they will bear the "palm" in America, as they did at Windsor, the last fair. I quote from the *Mark Lane Express*, of July 28th:—"As a class we give the palm to the Herefords, Lord Berwick's Hereford bull being the most perfect animal ever seen."

If you wish for a controversy on Hereford and short-horns, I am ready, and will answer Mr. Parsons' letter, as soon as you decide. In the mean time, I will say to Mr. Parsons that I will meet him, or any other breeder of short-horns and grades, with four blood Herefords and grades in any way he will point out. Early maturity, quality of beef,—the greatest weight of animal food at any age with the least weight of vegetable. The greatest weight of butter, with the least weight of food; both being kept alike, by an honest disinterested person. The best cattle for the yoke, &c. If a trial of this kind can be effected, I have no fear of the result,—all I ask is a "fair field and no favor."

I will also say more. There is one grand objection to short-horn stock in this State. Breeders purchase a bull at a high price, (or a "feigned" high price) and have his name "puffed up" to the public, as a valuable specimen, while their cows are a disgrace to short-horns or any other breed. I will write you an article on this subject as soon as I have time.

I am, &c.,

WM. H. SOTHAM.

[We shall be happy to be put in possession of Mr. Sotham's views and defence of Hereford

cattle as adapted to this continent, &c.; and from what we know of his experience in breeding this description of stock, and the very favorable specimens we remember seeing on his farm last summer, we have no doubt of his ability to throw considerable light on the subject. We request our readers to weigh impartially the arguments and evidence on both sides, and then judge for themselves.]—EDITOR.

NEW YORK STATE FAIR.

This important agriculturing gathering, by far the most numerous of any that takes place on this continent, or, perhaps, in any other part of the civilized world, will this year be held at Rochester, on September 16th, 17th, 18th & 19th; and from all we can learn it bids fair to exceed most, if not any of its predecessors. The locality being so convenient for persons to attend from Upper Canada, we have no doubt but large numbers of our fellow countrymen will pay our New York neighbors a visit on the approaching occasion. Steamboats and railways will take visitors to, and from the fair, at half the usual rates. We insert below, for the information of our readers, the circular of Mr. Fogg, the local Secretary;—also the correspondence between the Secretary of the Agricultural Association of Upper Canada, and the President of the New York State Agricultural Society. The latter affords a pleasing evidence how neighboring nations, living under different forms of government, yet inheriting a common ancestry and language, may evince a spirit of mutual respect and good will, in the promotion of a pursuit, which constitutes the basis of a people's wealth and independence,—the ancient and noble art of tilling the soil.

"The undersigned has been appointed local Secretary to the New York State Fair, and any enquiries respecting the arrangements of the show-grounds may be addressed to him. Persons having articles for exhibition, who cannot accompany them to Rochester, may consign them to him, and rely upon their being properly taken care of, and the necessary entries made at the business office.

"The Collector of the Customs at the Port of Rochester has received instructions from the Department at Washington, whereby all articles and animals, intended for the Fair, will be admitted *free of duty*, to be entered according to the provisions of the warehousing act; and the Fair grounds at Rochester are to be deemed constructively, warehouses, where all articles and animals from Canada, duly entered, will be under the supervision and custody of the officers of the customs."

JAMES P. FOGG,  
*Local Secretary.*

Rochester, N. Y., Aug. 1851.

Toronto, Canada West, }  
June 24th, 1851. }

DEAR SIR,

I am instructed by the Directors of the Agricultural Association of Upper Canada, to inform you that they have resolved on the postponement of their Annual Exhibition to the 24th, 25th and 26th of September, in consequence of having learned that the New York State Fair was appointed to be held in Rochester, during the previous week, that being the time appointed for our own, as determined at the annual meeting at Niagara. Our exhibitions for the last three years have been held at the same period of the month. When we ascertained that your time was finally determined, and as many of our people would feel anxious to visit your fair, (a feeling which we have the pleasure to think is reciprocal,) our directors resolved on making the before-mentioned change. In future it is hoped that this difficulty will be obviated.

I am directed to state further, that we hope to have the honor of the presence of as many of your officers as can make it convenient to meet us at Brockville; and we should be additionally obliged if they would consent to act as judges.

Hoping this request will receive a favourable consideration,

I remain, dear sir,

Very truly yours,

GEO. BUCKLAND, *Sec'y.*

B. P. JOHNSON, Esq.,  
*Sec'y State Agr'l Soc'y, &c. &c.*

Oaklands, near Geneva, July 10, 1851.

DEAR SIR,

I have received from our acting Secretary in Albany your letter of the 24th ult., announcing the postponement of the Annual Exhibition of your Association, upon learning that the Fair and Cattle Show of the New York State Agri-

cultural Society was to be held in Rochester at the time originally appointed for your own.

This act of courtesy is highly appreciated by the New York State Agricultural Society, and as the high aim of our respective Institutions is the prosperity and advancement of the farming interests, which include probably more than three-fourths of the entire population, I cannot doubt such acts will have a wide-spread happy influence; and I trust no occasion will be omitted on our part to reciprocate like attentions. We hope to see the President and as many members of your association with yourself, at our approaching Fair, (where you will find a cordial welcome) as can conveniently attend,—we shall be happy to extend every facility to your agriculturists and others who may be disposed to exhibit their cattle and other stock, as well as all objects of skill and ingenuity. To facilitate this desirable interchange, the Government of the United States has issued instructions to the officers of the Customs at Rochester and Lewiston, to permit the entry of articles from foreign places free of duty, under the warehousing act; and have authorised the Fair grounds of the Society to be constructively a warehouse for the reception of such articles.

It will be very gratifying to members of the New York State Agricultural Society to attend your exhibition, and action will doubtless be had in relation to a delegation for that purpose at the next meeting of the Executive Board

Respectfully and truly yours,

J. DELAFIELD,

*President N. Y. S. Agr'l Soc'y.*

REPAIRS AND WHITE-WASHING OF OUT-BUILDINGS.  
—Submit every out-building on your place to a searching examination—repair one which needs it. This done—make yourself a whitewash after this fashion:—dissolve two pounds of potash in five gallons of water, then add two lbs. of wheat flour, make the whole into a paste by stirring in the flour a little at a time—then in another tub slack as much lime as you desire to use, and when cold incorporate it with the first, and apply it to all parts of your buildings, both inside and out—roofs and all, and you will not only have put on a beautiful and durable white-wash, but one which will render your wood-work as nearly incombustible as is desirable.—*American Farmer.*

Experiments show apples to be equal to potatoes to improve hogs, and decidedly preferable for feeding cattle.

Timber cut in the spring and exposed to the weather with the bark on, decays much sooner than if cut in the fall.

To cure scratches on a horse, wash the legs with warm soapsuds, and then with beef brine. Two applications will cure in the worst case.

## ANNUAL EXHIBITION OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

The great Annual Meeting of this National Society was held in the Home Park, at Windsor, on the 15th, 16th, and 17th July, and from all that we learn, it was one of the most successful exhibitions the society has ever held. At this meeting only live stock was exhibited; those very numerous and attractive departments,—agricultural implements and productions,—formed part of the World's Industrial Exhibition, in Hyde-Park. Notwithstanding the Society's Exhibition was thus shorn of half its usual attractions, the number of visitors was very great, and the cattle, horses, sheep, and pigs were far more numerous, and in some respects of superior quality, than on any previous occasion. The location was not only favourable as affording great facility of access by railway, but its contiguity to the Royal Castle, so celebrated as the chief residence of a long line of British Sovereigns, afforded an additional inducement for persons of all classes and countries to visit the show. The Queen, accompanied only by Prince Albert, inspected every department of the Exhibition, and like a farmer's good-wife (for the Prince is an extensive and skilful practical agriculturist,) examined with much interest many matters of detail. How full of hope and encouragement is such an example. The monarch of the richest and most extensive empire on earth, recognizing in the most practical and popular manner, the strong and legitimate claims to Royal consideration of the ancient and noble art of Agriculture;—and that Monarch, too, a woman! As a colonial member of the vast dominions of such a sovereign, we feel a becoming pride in recording this fact. Long live our gracious Queen! Peace and stability to her Empire; and prosperity to all classes of her people!

The society have this year much increased their classes; among the novelties, we observe the admission of several breeds of cattle hitherto not recognized,—such as the Sussex, long-horns, Alderney, horned and polled Scotch, the Welsh and Irish, all properly classified. Thus a full outline was presented to the foreigner, of the various breeds connected with the different agricultural systems in the United Kingdom. The total number of animals exhibited was 1,267. The short-horns, as usual, were far the most numerous, and included many animals of the highest degree of merit. Lord Hastings' bull, which received the 2nd prize, is said to be a remarkably large animal, 9 feet 2 inches in girth, 5 feet 9 inches long from shoulder to tail, and 5 feet 6 inches high. Lord Berwick's Hereford bull was nearly of equal dimensions, and of very fine quality.—The Herefords were generally less than the Durhams of equal age. The North Devon were numerous and remarkable more for elegance of form than for size. Considering the limited area over which this breed extends, their numbers were larger than any other, and elicited much admiration. In horses, sheep and swine, the

show was particularly rich: but we have no space for details. We hope to hear the opinions of several of our Canadian visitors to England, at the approaching Exhibition at Brockville. The following table will give the reader an exact idea of the comparative numbers of the different breeds of cattle at the Windsor Meeting:—

	Bulls.	Cows.	1 Yr. Old Heifers.	Yearling Heifers.
Short-horns . . . . .	89	25	22	40
Herefords . . . . .	19	6	7	9
Devons . . . . .	21	15	17	21
Long-horns . . . . .	2	2	1	2
Channel Islands . . . . .	12	8	6	5
Sussex . . . . .	9	6	3	4
Scotch, horned . . . . .	3	4	2	0
do polled . . . . .	2	3	2	3
Welsh, Irish, &c. . . . .	6	4	3	2

The Dinner, on Thursday, was attended by about 2,000 persons, including a number of distinguished foreigners. We subjoin a condensed account of the festive proceedings from an English paper:—

The show of the Royal Agricultural Society has finished with equal *clat* to its commencement, and in all respects has been most successful throughout its proceedings. On Wednesday, the day of the customary dinner, the "yard" is reported to have been inconveniently crowded. At the dinner, the Duke of Richmond, as President, proposed the loyal toasts. Prince Albert replied for himself and the Queen, expressing heartfelt pleasure in welcoming them to the Home Park. He then drew a historical contrast:—

"Your encampment singularly contrasts with that which the barons of England, the feudal lords of the land, with their retainers, erected round old Windsor Castle, on a similar mead, though not exactly in the same locality. They came clad in steel, with lance and war-horse. Your appearance, in a more peaceful attire, and the animals you bring with you to the meeting, are tokens of your successful cultivation of the arts of peace. (Vehement cheering.) King John came trembling among his subjects, unwillingly compelled to sign that great charter which has ever since been your birthright. (Cheers.) Your Sovereign came confiding, among her loyal and loving people—she came to admire the results of their industry, and to encourage them to persevere in their exertions; and the gratification which the Queen has felt at the sight of your splendid collection must, I am sure, be participated in by all who examine it. (Great cheering.) I am doubly pleased at this success, not only because it is witnessed by the many visitors from foreign lands now within our shores, whom every Englishman must wish to inspire with respect for the state of British agriculture, but also because I feel to a certain degree personally responsible for having deprived you of one—generally most interesting—feature of your show—I mean the field fruits and the agricultural machines and implements." (Cheers.)

In the course of the other speeches, M. Van de Weyer, the Belgian Minister, made a lively speech on English and Flemish agriculture. He said that in many diplomatic despatches, "dissertations on breeds of cattle and manuring take the place of the idle and dangerous political gossip of former times." The Duke of Richmond, in acknowledging his own health, said that "at no show in the world had so many good animals ever before been congregated." Lord Ashburton made the

most singular speech of the evening. The toast he had to propose was "The agricultural labourers." He showed the state of dependent relations of class with class, and pointed out the peculiarities of the labourer's position:—

"And yet there are those who think lightly of the labourer—who call him rude and boorish—who make his ignorance a bye-word. They say he is uneducated, because he knows little of things that do not concern his own calling; but above all, because he is taught to do, and he is not taught to talk—because in this land, where we choose members of Parliament by their talk, and Cabinet Ministers by their talk—a false test of ability, a false test of knowledge, a false test of education has been set up, and by this false test the labourer has been judged. (Loud cheering.) But it is not by this test, it is by his works that you shall know him. Try him by what he does, not by what he says. (Loud cheering.) Try him by what he knows of his own business, not by what he knows of his neighbour's.—Put a plough into his hands, and although he cannot define a straight line like others taught by rule in set forms of speech, he will run a furrow mathematically exact between its extreme points, though they be as distant as the eye can reach. (Loud cheers.) Is there no education there? What say you of the training of that eye, of that hand, of that head, which can not only see the line, but follow it so truly, making an unerring instrument out of two rude horses and a plough. (Loud cheers.) Or do you hold that only to be education which is to be gained in books; that only to be knowledge which is the development of abstract rules and general ideas? (Cheers.) Take another case. Give one of these ignorant peasants a quarter of corn, bid him sow it over six, or eight, or ten acres; he will not sit down to pen and ink, and consult books. If he lost hours at that work, the world would forthwith dub him a scholar, and doff its hat to him; but he goes straight to the field, and distributes the grain so exactly over the space assigned, that the harvest you shall see no spot unoccupied—no spot more crowded with plants than another. (Cheers.) Is there no education in this? Is there no education required to give so exact an appreciation of quantity—so intimate a knowledge of the capacity of a given space? (Loud cheers.) Propound the same problem to a philosopher. (A laugh.) I believe the labourer would sow a whole farm before the other could make out his rule; and when he had this rule, I doubt if he could ever teach a scholar to apply it. (Loud cheers.) But this is not all; I have as yet spoken only of the mechanical skill of the labourer. I come now to that knowledge which he possesses in common with yourselves—the knowledge of the art of farming—an art which has ever formed the delight of the noblest and most elevated characters of all times—an art which exacts from those who practise it the power of dealing with the incidents, occasions, and emergencies, as presented by the varieties of the seasons, by the nature and constitution of domestic animals, by the nature and properties of plants—an art which elevates and dignifies the mind by the perpetual study and constant contemplation of God's most interesting works; and yet the labourer, so gifted, so trained, is held to be a boor because he cannot talk. (Loud cheers.) But you are not led away by this sophism. Whatever you may do on the hustings—whatever you may approve in Parliament, you have never chosen your shepherd for his talk. You judge the agricultural labourer by what he can do, you love him for his honest worth; you reverence him for his wondrous sagacity, for the genius of his instincts; and now when we are met

together at this high festival, with the magnates of the land, with the distinguished in arts and literature of the civilized world: now we have expressed our loyalty to the throne—(cheers)—our respect for the illustrious Prince, our patron, and the patron of all that elevates society—(loud cheers)—now that we have expressed our gratitude to our distinguished guests for their presence—(cheers)—to our especial leaders and benefactors for their services—we find no toast so satisfactory to our judgment, so grateful to our feelings, as the toast of 'The Labourer,'—even though he cannot talk.—(Great cheering.)"

One or two other speeches finished the proceedings; Mr. Evelyn Denison eliciting a hurricane of cheers by incidentally mentioning the name of "Stanley" in connexion with the impetus given to the use of guano, by Lord Stanley's Liverpool speech, some years ago. The president elect, Lord Ducie, was unable to attend from illness.

We learn from official sources that the number of visitors to the show-yard on Tuesday was 3,000, who paid 5s. each for admission; on Wednesday, when the charge was lowered to 2s. 6d., the visitors amounted to 14,500; and on Thursday, the last day of the show, when the price of admission was reduced to 1s., the numbers were 18,000. Altogether the numbers, though not equalling some former years, produced an unequalled revenue, in consequence of the increase of price.

The proceedings finished on Friday by a dinner to 1,800 labourers of the neighbourhood, invited by ticket through the ministers of every denomination:

"The guests consisted of persons of all ages and of both sexes—all of them clean and neat in their appearance, every face beaming with happiness and radiant with smiles. They were of a class above the very lowest grade of labour, as was evidenced by their being almost all in holiday attire; the women were dressed in plain but clean cotton gowns, and there was scarcely a smock-frock to be seen amongst the men.—Their behaviour throughout was, upon the whole, most orderly; their patience was a little tried at the outset by being kept waiting for the arrival of some of the more distinguished guests—they bore it well; and their hilarity though loudly expressed never surpassed the bounds of decency and order; so it was during the time that the few speeches were delivered. As may be supposed, of the two duties of an audience, the cheering was much better performed than the listening; but there was no speaker with a voice loud enough to be heard all over the great hall, who was not sure of being listened to; and even with regard to the feeblest, it may be stated that the conduct of the audience would form a favourable comparison with that of their employers—the tenant-farmers, on the previous Wednesday. Add to this, that though the ale circulated freely on the occasion, yet, when the proceedings were over, no one seemed inebriated—no one showed a disposition to protract his stay at the dinner-table, but all retired at once, hilariously but orderly, to the show-yard adjoining, where the younger portion of the guests amused themselves with various sports on the greensward; after which tea was served to those who wished it, and the festivities were quietly brought to an end.

"The expense of providing hired waiters for the dinner would have added considerably to the expense of the arrangements. This was obviated in a great measure, by putting down on the tables at once all the provisions, consisting of cold beef, mutton, lamb, plum pudding, &c., and leaving the guests to help themselves. Still some superintendence was necessary, and this duty was undertaken by the Clergy, and several respectable

inhabitants of Windsor, so that it was no uncommon sight to see a Canon of Windsor or a Master of Eton College, as well as several of the parochial clergymen, moving about from table to table, assisting the guests according to their wants, and occasionally handing to them a flagon of ale or a basket of bread. It was, in fact, an entire commingling of all classes, and the kindly feelings evoked on this occasion cannot fail to exercise a deep and lasting influence on the labouring poor of Windsor and the neighbourhood towards their superiors.

### THE HAPPY FARMER.

Saw ye the farmer at his plough  
As you were riding by ?  
Or wearied 'neath his noon-day toil,  
When summer suns were high ?  
And thought you that his lot was hard ?  
And did you thank your God,  
That you and yours were not condemn'd  
Thus like a slave to plod ?

Come see him at his harvest home,  
When garden, field and tree,  
Conspire, with flowing stores to fill  
His barn, and granary,  
His healthful children gaily sport,  
Amid the new mown hay,  
Or proudly aid with vigorous arm,  
His task as best they may

The dog partakes his master's joy,  
And guards the loaded wain,  
The feathery people clap their wings,  
And lead their youngling train,  
Perchance, the hoary grandsire's eye  
The glowing scene surveys,  
And breathes a blessing on his race  
Or guides their evening praise.

The Harvest-Giver is their friend,  
The Maker of the soil,  
And Earth, their Mother gives them bread  
And cheers their patient toil.  
Come join them round their wintry hearth,  
Their heartfelt pleasure see,  
And you can better judge how blest  
The farmer's life may be.

### DISPOSITION OF CATTLE TO FATTEN.

Many people act on the supposition that all cattle are alike in their disposition to fatten; no greater mistake can be committed, since half the feed will bring forward one animal, required to produce another, and the economy of fattening cattle depends in no small degree in selecting the right animals. Mr. Stephens gives some rules for selecting animals disposed to early maturity. He says:

The most prominent indication of this disposition is a loose, thick, mellow skin, as if floating upon a stratum of fat below; and such a skin is invariably covered with long, soft, mossy feeling hair, bearing a decided colour. A firmness of texture over the whole body is essential to a disposition to fatten; no fat encumbers the bones of the legs and of the head, all the extremities—the limbs, head and tail are small, fine and tapering from the body. The eye is prominently set in the head, and with a placid expression. The forehead is broad. The ears are sensible to every new sound. The muzzle is sharp, the nostrils distended, and the jaws distinct and clean. The muscles broad and flat. The blood-

vessels large and full. The chest is broad, and the tail flat at the top, and broad and tapering to the tuft of hair. The line of the back is straight and level, and the ribs round. A back high above the level is narrow, and is accompanied with flat ribs and a long, narrow face, which are both indicative of a want of disposition to fatten. When the back is below the level, the fat and flesh are mostly upon the lower part of the carcass, and the fallow increases in the interior. The flanks and cod are then thick and fat. In such a configuration, the fore-quarters are larger than the hind. Such an animal evinces a disposition to fatten but lays on coarse pieces. When the curved lines abound over the body and play into one another, giving a brilliancy to the surface, while the sweeping lines of the contour, with the tapering fineness of the extremities, the pleasing countenance, and the joyous spirit, a symmetry, state of health, and disposition to improve are conjoined, they afford the highest satisfaction and profit to the breeder.

**MACHINE FOR GATHERING CLOVER-SEED.**—Mr. George A. Smith, of Winchester, Randolph County, Indiana, has invented and taken measures to secure a patent for a machine for cutting and gathering clover-seed. This machine exhibits a great deal of ingenuity, although its construction is very simple. A wooden roller is constructed with thick, spiral-shaped projections, at a short distance apart, running on it lengthwise with the axis. On these spiral projections are secured knives or blades set in such a way that the cutting edge of each projects over the concave part of the wooden spiral of the cylinder. A rake is placed on the carriage below, like that of a grain reaper, and a straight knife extends across the rake behind, to hold up the clover, so that as the spiral cylinder revolves, the knives of it cut off the heads of the clover, and the receptacles under the knives carry the heads of the clover round, and thus deposit the seed in a proper receptacle at the turning vertical point. There is also an arrangement for securing the wheels on the axle of the carriage, which is a very good improvement. The collars of the wheel-boxes have ratchet teeth, whereby the axle is made to turn when moving forward, but not when moving back, thus throwing the wheels out of gear with the cutters, by a spring, when necessary.—The rake can also be adjusted to any required distance to or from the revolving cutters.—*Scientific American.*

**MEDITERRANEAN WHEAT.**—The damage done to the wheat crop this season, by the weevil, has excited a good deal of apprehension in the minds of our farmers for the future, and attention has been turned to securing some earlier variety which shall ripen sufficiently early to escape the ravages of this insect, which in so many parts of the country has completely destroyed the wheat crop. The Hallowell Agricultural Society held two meetings on the subject, and finally concluded to purchase some Mediterranean wheat for seed for the use of its members. This wheat has been tested two years in some parts of the adjacent County, and has escaped the ravages of the weevil in localities where the Soules, Rasp, and Flint wheat have been seriously injured.—The Mediterranean is not so fine a variety of wheat as some others, but is very hardy, standing the winter well, and very productive. The person from whom the Society purchased their seed raised 300 bushels from seven acres. It weighed 61lbs to the bushel.—*Picton Gazette.*

Never keep your cattle short; few farmers can afford it. If you starve them, they will starve you.

**HORSE-POWER DITCHING MACHINE.**—Mr. Charles Bishop, of Norwalk, Ohio, has invented and taken measures to secure a patent for a good improvement in Ditching Machines, whereby the old spade method of ditching by manual power is entirely thrown into the shade. His machine is worked by horse-power, and is provided with a revolving excavator, the shaft or axle of which, lies in the direction of the length of the ditch. The excavator is of a screw form, and is operated by an endless chain. The ditch is cut of a semi-circular form, and it deposits the cut clay of other kind of excavated earth in a box, from whence it is delivered at one side of the road, by scrapers attached to the endless chain, the machine being propelled forward by a friction wheel or roller, moving in the ditch and operated by the excavator shaft.—*Scientific American.*

### ON THE CULTIVATION OF HEMP.

Hemp requires for its growth a soil of deep rich, moist alluvium, such as is found in the best parts of Lincolnshire, where the ingredients of the earth are numerous, finely comminuted, and very intimately mixed. It will thrive on friable loams, and on loamy sands, provided the culture be rich, and the manuring abundant. On the latter soils the produce is not so abundant as black rich moulds, but the quality is finer, and can be used for more valuable purposes. The land must be very perfectly cleaned and heavily manured, or made very rich by the previous cropping. If freshly manured, the quantity may be 16 to 20 loads of dung on an acre. On this rich and pulverised surface, two bushels of Hemp seed are sown by the hand in broadcast, during the two first weeks of the month of April, and covered by a light and gentle harrowing. The heaviest and brightest colored seed should be selected, and some of them should be cracked to see if they have the germ perfect. Birds must be scared from the sown ground till the plants appear. It has been practised to hoe the crop, setting the plants at 12 to 16 inches apart, cutting down all weeds, and repeating the hoeing at the distance of a month or six weeks; but when the culture of the land is proper, the plants very soon cover the ground and kill every weed.

In about four months after sowing, the plants of Hemp turn yellow in the leaves, and the stalks become white, when the crop is ready to be pulled. When thread only is intended, without any regard to seed, the whole produce is pulled at once; when ripened seed is grown, the male plants are first pulled, usually in August, and the female ones afterwards, in the beginning of October, when the seeds are seen to be ripe. In both ways the stems are tied in bundles of about a yard in diameter, and with a rope at each end. The crop is then conveyed to the steep of water, in order to undergo the operation of water-retting. The bundles are placed in rows crossing each other, and are kept under water by blocks and logs of wood. It soaks generally from four to ten days, if the weather be warm; if not, five or six more, till the outside easily rubs off. It is then spread out singly on the grass, and turned, if there be showers, thrice a week; if not, twice a week. This is called grassing, and requires five or six weeks. It is then tied up in large bundles, and carted to a barn or house for breaking, by a machine called a "brake;" this is either done directly, or the bundles are laid up to dry for the future purpose. The Hemp being beat and broken by the hand or mill, is dressed or combed, by being drawn through hickles or heckles,

resembling wool-combers' tools, only fixed. The Hemp that is broken off by the operation is called "shorts;" this is bound up by itself, and is about the value of the long Hemp. The offal is called Hemp sheaves, and makes good fuel. Sometimes the Hemp is dressed to one quality of fineness, or it is made into two or three sorts, as the demand of purchase may direct. The heckler sells the Hemp to be spun for thread, or himself applies it to that purpose. Being converted into yarn, it is sent to the "whitester," who returns it in a bleached condition.

The female plants of Hemp produce the ripened seeds, and for that purpose remain longer on the ground. The pulled bundles of tied stems are staked up or housed till the seed be threshed out. In the spring (January or February) the stems are spread upon grass, and if the season suits, particularly if covered with snow, it will soon come a good colour, and make a strong coarse cloth; but it is much inferior to Hemp pulled in proper time, and water-retted or steeped. Although Hemp, in the process of manufacturing, passes through the hand of the breaker, heckler, spinner, whiester, weaver, and bleacher, yet many of these operations are frequently carried on by the same person. Some weavers bleach their own yarn and cloth; others their cloth only. Some heckle their tow and put it out to spinning; others buy the tow and put it out; and some carry on the whole of the trade themselves. When the trade is conducted by different persons, their interests often clash. By under-retting the Hemp, the grower increases the weight; by slightly beating it, the heckler increases the quantity of tow, but leaves it fuller of bark; by drawing out the thread beyond the staple, the spinner increases the quantity of yarn, but injures the quality; by forcing the bleaching, the whitester increases his profit, but diminishes the strength of the yarn. In general, in manufacturing cloth, strength is sacrificed to fineness and colour.

The average produce of an acre of Hemp may be estimated at 40 stones, or £16 in money. The expense per acre may be about £10, leaving £6 for profit, along with seed (£4).—J. D.

### DRAINING BY MACHINERY.

A series of interesting experiments have been lately made at the farm of Mr. Ruck, Down Ampney, Gloucestershire, for the purpose of proving the superior advantages of graining land by machinery, both in time, and expense, as compared with manual labour. The machine is an invention of Mr. Fowler, of the firm of Fowler and Fry, of Bristol. The field selected for the experiments consisted of stiff clay land, exceedingly dry on the surface, and crossed by a gravel path. The machine is formed by two horizontal iron frames, nine feet long, placed two feet apart, supported at one end by three wooden rollers, of one foot diameter, turning on axles; at the other end by two cart wheels. At the end nearest the cart wheels, and between the two frames, is supported a perpendicular plough or coulter of iron, seven feet in height, nine inches broad, and three quarters of an inch thick; the side of this plough or coulter, intended to cut the drain, has a sharpened edge, the other side is formed into a rack, which can be raised or depressed at pleasure, by a pinion or wynch, working into it, so that the plough is capable of being placed in the ground at any required depth. At the bottom of this upright plough or coulter is a socket, in which is placed a lengthened horizontal cone or plug, the

point of apex in the same direction as the sharp edge of the coulter; at the back of this plug is fixed a rope, upon which is strung as many drain pipes as its length will allow; a simple process is adopted to add fresh coils of rope, as more pipes are required. A hole is then dug in the ground, say two feet deep, and a foot wide, as in the present experiment, gradually sloped at the back, so as to allow the rope with the pipes to enter freely, and the coulter is placed upright in the hole, with its sharp edge and the point of the plug in the direction the drain is to be formed; at the end of the horizontal iron framing, farthest from the coulter, is fixed a horizontal pulley, through which a wire rope is passed, fastened at the other end to a capstan placed at the opposite extremity of the field, up to which the drain is to be formed. Four horses were harnessed to the capstan, which they armed with very trifling exertion, thus drawing the coulter through the land, the plug forming the drain and the rope with the pipes following. The time occupied in laying the nine chains of piping was thirty-three minutes, and the surface land was not more disturbed than if a knife had been drawn through it; when the coulter was drawn up to the capstan it was raised out of the ground, the rope disengaged from the plug, and the horses hitched to the other ends of the coils of ropes, which they immediately drew out, leaving the tiles accurately placed, as was ascertained by digging down to the drain. Another drain was then immediately formed in the same manner, at a parallel distance of about fifteen feet, the capstan in the same position. The estimated expense of draining land in this manner, independent of the cost of the tiles, is about 4d. a chain. From 6000 to 7000 feet can be drained in one day, at an expense of about 30s.—*Architect.*

PROFESSOR JOHNSTON'S NEW WORK ON  
AMERICA. \*

Many of our readers will recollect that Professor Johnston spent about eight months on this continent two years since; a large portion of his time was devoted to the making of an Agricultural Survey of New Brunswick. He visited and lectured in several of the States; his eloquent and comprehensive address delivered before the New York State Agricultural Society at Syracuse must be fresh in the recollection of many. He also paid a short visit to Upper Canada and attended the Provincial Exhibition held at Kingston in September, 1849. In the work before us we have an interesting account of his journeyings and impressions relative to the Agri-

cultural, Economical, and Social condition of such portions of the American Union which he visited, together with the British Possessions north of the American boundary. We have had time only to glance at the contents of these two volumes, which, however, we do not hesitate to pronounce, from what little we have seen and the well known reputation of the author, are well deserving a careful perusal of all who feel an interest in the general condition and advancement of either British America or the United States. We intend to give our readers occasional extracts from this work, commencing with the author's visit to Upper Canada, at the Provincial Agricultural Show in Kingston.

"At 6 P. M. we landed on the pier. I almost felt myself at home again as I set my foot on shore in sight of the British flag; and the kind welcome of a Kingston family added double pleasure to the agreeable week I subsequently spent in this place.

In manners and in sympathies, a sensible difference still prevails between Upper Canada and western New York. Notwithstanding the proximity of the two countries, and the increasing intercourse between them, this will probably long continue to be the case.

Part of the difference which is felt in crossing from either side, may be in idea only, and connected with one's political prejudices, republican or monarchical; yet sensible differences, both in men and women, exist nevertheless. One feels the—*de trop*—the tendency to exaggerate—among the men on the one side, obtruding itself sometimes offensively, especially in the newer States of the Union, and among the newer people. An opposite tendency, and not unfrequently symptoms of discontent lurking at the corners of the mouth are met with along the Canadian border, so often as to arrest attention to the circumstance. But the Upper Canadians have in themselves, and in their country, the materials of a first rate people, if their eager spirit, anxious too speedily to excel, would permit them to proceed steadily on their way.

The Upper Canadian women have their character too. "I'll go over to Canada for a wife when I marry," said a young south shore farmer to his friend. "When I come home at night she'll have a nice blazing fire on, and a clean kitchen, and a comfortable supper for me; but if I marry a New Yorker, it'll be, when I come home, "John, go down to the well for some water, to make the tea;" or "John, go and bring some logs to put on the fire, to boil the kettle." No, no; a Canadian woman's the wife for me."

\* Notes on North America, Agricultural, Economical, and Social; by James F. W. Johnston, M. A., F. R. S. S. L. and E., F. G. S., &c., Reader in Chemistry and Mineralogy in the University of Durham; 2 vols. 8vo; Boston, Little and Brown; Edinburgh and London, Blackwood and Sons, 1851." The work may be procured in Toronto, of A. H. Armour & Co., King Street, and we presume of the Booksellers generally.

One circumstance which will materially modify the population on the opposite shores is the large number of Germans who have settled in the States, while the population of Upper Canada is almost wholly British. This, I think, promises a more active future to Canada than the population of New York would give her.

In Canada, every one is satisfied of the paramount importance of the agricultural interest; a very general desire exists, therefore to advance it by every reasonable or available means. The superior class of settlers of whom so many are scattered over Upper Canada, will greatly facilitate the adoption of such means of improvement as are usually employed, or are easily available by agricultural societies.

The Agricultural Society of Upper Canada had been in existence only three years, and the excited state of political parties had retarded that general union, even upon the question of rural improvement, which as men's minds sober down, must eventually take place. Still I was agreeably surprised, both at the extent of the preparations I saw making on my arrival, and with the appearance of the town and of the show-yard on the day of the exhibition. The latter was not so extensive nor so crowded as that of Syracuse, but much more numerously attended by well dressed and well behaved people, and rendered attractive by a greater quantity of excellent stock and implements than I had at all anticipated. The best of the stock was brought from the western part of the Province. Among them were superior Short-horns, a few Devons, and some Ayrshires—all of pure blood. The greater number, however, were crosses, which, as in the States, are here called *grades*. The Leicester sheep were very fine, and the prize pigs—chiefly Berkshires—excellent.

The pig husbandry in Canada and in the Province of New Brunswick, to be conducted economically, requires to be somewhat modified in comparison with the method adopted in Ohio and the other large hog-growing and Indian corn-producing States.

Of the vast number slaughtered at Cincinnati after harvest, the ages vary from a minimum of eleven to a maximum of nineteen months. They are generally kept over one winter and *packed* before the next commences. In the Provinces the first difficulty which the settler has to overcome is that of laying in a sufficient stock of food for the long months of winter; and although the introduction of a better husbandry will by-and-by greatly lessen this difficulty, yet at present it is a main object with the farmer to

get the winter over at as little cost of food as possible. The aim in regard to pigs is therefore to obtain a breed which shall litter in April, and can be fed to produce a barrel of pork (196 lbs.) in November or December of the same year, and thus to save all winter keep, except for the breeders. As the lumber trade retires farther back, and becomes less extensive, the large and fat pork which was in demand for the lumberers becomes unsaleable and a new form of the article—such as a civilized community are likely permanently to consume—is necessary to be produced.

Considerations of this kind render it necessary to look at stock in different countries with a differently instructed eye; and the opinions of a committee in offering, and of a judge in awarding prizes, must be determined, not so much by the abstract excellence of this or that animal or breed, as by its special adaptation to local circumstances, and to the purposes for which it is reared.

Among the implements, which considerably exceeded in number and variety what is often to be seen at the shows of the Highland and Agricultural Society of Scotland, there were many excellent ploughs, harrows, cultivators, &c., manufactured in the Province. Straw and corn-stalk cutters, and corn-shellers, were in considerable numbers; but an English visitor would be struck by the want of drill-machines, and root cutters, and grain-crushers, now so abundant at our British shows. A few of the former for drilling wheat, were the only implements of this kind which were to be seen. The roots exhibited—turnips, carrots, beet, mangold wurzel, &c.—were all large and fine, showing the aptitude of the climate and soil to this culture. But here, as elsewhere, in North America, the root-culture is still in its infancy. A rich virgin soil, producing crops for many years almost spontaneously, gave no stimulus to the preparation and preservation of manure among the first settlers; while the ready sale for wheat, and the difficulty of procuring hay for large winter stock, have hitherto prevented the attention of the existing farmers from being turned to the rearing of cattle.

On the whole, as I have said, this Kingston show was very creditable to the Province of Upper Canada. The thousands of people who came to it, the stock and implements exhibited, the respectable appearance, the orderly behaviour, the comfortable looks and cheerful faces of both male and female, spoke for a state of things at least not very unflourishing. The British blood is purer in Upper Canada than in the State of New York, where, as I have already



remarked, Dutch and German settlers occupy large portions of the territory, and crowd into the towns; but in both there is enough of its influence and energy seen everywhere to make a home-born man proud of his country and his people. Faces, persons, dispositions—all look like home over again. The most pushing and impatient of the colonial-born little imagining how very much they resemble the tens of thousands of men at home who restlessly gnaw the bit of resentment—by which order can alone be secured, and leisure obtained for that cautious and steady progress by which advances, economical and political, which all consider desirable, may be safely made and successively rendered secure. I venture to say for John Bull and Sandy too, that there is not a single British Colony to which it does not delight them to hear that their brothers and cousins are going, or having gone, to learn that they are prospering in it. Nor is there not a single real grievance with which any of these colonies may be afflicted that does not meet with their sympathy, and whatever party may be in power, their ready co-operation, by all lawful means, to secure redress.”

### KNOWLSON'S COMPLETE FARRIER.

#### A CONSUMPTION.

It is hard to lay down proper rules on this head, or to give the owner or farrier such an explanation of the disease as may lead him to a proper knowledge of it. It has been above a match for many; but having in my long experience had many under my care in this dangerous disorder, I hope to be able to explain it as well as most people.

**SYMPTOMS.** A Consumption is a want of nourishment, and a waste of flesh. The horse's eyes look dull, his ears and feet are commonly hot, he coughs violently by fits, sneezes often, and groans at the same time; he gleans at the nose, and sometimes throws a yellowish matter, rather curdled, from his nose; his flanks have a quick motion, and he has little appetite to hay, though he will eat corn, but he grows hot after it.

**CAUSES.** Damp stables are most likely to bring on this disorder, though it may be brought on by many other things. In my time I have known many horses suffer much by damp stables. I knew a gentleman who, had two valuable horses, and he built a new stable for them without any air-holes above their heads. He put the horses in as soon as the stable appeared dry, and their heat soon caused the walls of the place to sweat, and to run down with water, by which means both the horses were thrown into a Consumption, and died. I mention this to caution others.

**CURE.** The first, and indeed one of the princi-

ple things to be done, is to bleed in small quantities. A pint, or at most a pint and a half, is sufficient at once, and the operation is to be repeated whenever the breath is more than commonly oppressed. We are assured, by dissection that in a Consumption both the glands of the lungs and the mesentery are swelled, and often indurated. The only medicines that can be depended upon, are mercurial purges and ponderous alteratives. I have already given you examples of the former, and the following is a formula of the latter. Mix

4 oz. of Crocus Metalorum.

1 do. Colomel pp.

1 lb. of Gam Guaiacum, finely powdered.

Give about an ounce every day in a mash of brand linseed. Iceland liverwort, a handful boiled in a gallon of water, is much better to make mashes up with than water; for it is a great helper of the blood. But it is to be observed that nothing will answer so good an end as spring grass; so that if the horse be afflicted with this disease in spring time, turn him out to grass as soon as you can; and if the nights be cold, turn him out in the day time, and take him in at nights. Salt marshes are the properest places when they can be met with.

When a horse has had this disorder, he can never more bear cold and hard service as before. If the horse be of small value, the above medicines will be thought too expensive, and you may give tar-balls, of tar water. Fine Norway tar is of very great use in diseases of the lungs, and is be made into balls in the following manner, which will be useful either in consumption, a cough or an asthma, and help them as soon as most drugs that are made use of.

1 lb. of fresh Norway or Stockholm Tar.

4 oz. of Garlic.

Bruise the garlic, and work them up with liquorice powder into a paste, and give two ounces at a time every other day.

#### A SCOURING, AND OTHER DISORDERS OF THE INTESTINES.

You should consider well what the Scouring proceeds from,—whether it is caused by foul feeding, bad water, hard exercise, sudden heat or cold, an overflowing of the bile, or a weakness of the intestines.

If it is brought on by foul feeding, or bad water, it should not be stopped, but rather be promoted; for it should be remembered that nature by this means throws off the seeds of disease, and evacuates the morbid matter which would otherwise be retained to the great disadvantage, and perhaps to the destruction of the animal. The great difficulty therefore consists in knowing when these discharges are critical and salutary, and when detrimental and noxious; for the former must not be checked, but the aid of medicine must be called in to put a stop to the latter.

For instance,—if a healthy horse, upon taking a cold, or after hard riding, over-feeding, or at the beginning of a slight fever, have a moderate

purging, you must be careful not to stop it, but on the contrary to promote it, by an open diet, and plenty of warm gruel. But if this purging continue a long time, with smart gripings, and the inner skin of the bowels come away with the dung, and the horse loose both his flesh and his appetite at the same time, recourse must immediately be had to proper medicines; among which the following are very effectual, I do not wish any one to give medicines upon merely hearing the names of the drugs, but to know in what manner the drugs will operate before they give them. Take—

- 1 oz. of Rhubarb in powder.
- 2 drams of Myrrh, do.
- 2 do. Saffron.

Give altogether in warm ale, and warm water for two days after. This dose will only work gently, but will be of great service to the horse, as it will bring away the slime which lodges in the small intestines, and correct the bile of the stomach, which is the cause of this disorder. If the horse be a good one, I would advise the owner never to refuse giving medicines because of the expense, as they will soon make him ample amends by their salutary effects; and sometimes the desire of saving a few pence in a medicine has been the destruction of a useful horse.

But when the disorder continues, and the horse's flesh keeps wasting away, recourse must be had to astringents. Tormentil-root, (dried, and pounded in a mortar, and put through a sieve,) is one of the best astringents yet found out, though very little known. I heartily wish my fellow-creatures would make more use of this valuable root than they do. The dose is from an ounce to a half ounce and a half. I believe that this valuable root has done more good in my time, in stopping looseness and bowel complaints, than any thing else. I have known plenty people who have spent pounds on physicians, and got no relief, and whose strength has been nearly gone, and their lives despaired of, but by taking the above in red wine, they have been restored. The dose is from half a dram to a dram, in a little red wine, four or five times a day. But you may say, *Where is this root to be got, as few of the druggist keep it?* I believe they do not; neither do I wish you to apply to them for it, they will give you something else that will not answer the purpose. It may commonly be found in dry land, where whins and brackens grow. It flowers all summer long; its top is small, something like southern wood; its flowers are small, yellow, and numerous; it is seldom above half a foot high; and its root is strong; in loose land and old camps as thick as a finger, but in fast bound land not so strong.

When the purging is attended with a fever, a different method of practice is necessary. Take—

- ½ oz. of Rhubarb, in powder.
- 1 do. Lenitive Electuary.
- ½ do. Camphor.
- 1 do. Powdered Ginger.

To be given in a pint of ale. This is a very proper medicine when the horse is troubled with

a fever; but if he have no fever upon him, give the following.

- 1 oz. of Tormentil Root in Powder.
- ½ do. Japan Earth, do.

Give these in red wine, or if that be thought too expensive, in oak bark tea. Japan earth is a great healer of the bowels. Repeat this last medicine three or four times, to allow it a fair trial; giving the horse at the same time but little exercise, for he cannot then bear much. Should this medicine fail, and the disorder increase instead of decreasing, which may be known by his flanks and belly being full and distended, and his appearing to suffer strong griping pains, give the following clyster.

- ½ oz. of Isinglass, dissolved in a quart of warm Milk.
- 2 do. Mithridate.

Sometimes the flux is so violent as not to be overcome by preceding medicine, when recourse must be had to the following. Boil a handful of oak bark in a quart of water, strain it off, and add—

- 2 oz. of Tormentil Root, in powder. 2 oz. Bole.

Give them all together. This should be repeated once a day, for two or three days.

The practitioner should carefully attend to the symptoms that accompany this disorder; for if the discharge be attended with an acrid mucus, or slime, the griping pains being very severe, there is then a sure indication that the common lining of the bowels is wasted away; and then it will be necessary frequently to inject the following clyster, warm, in order to prevent the fatal consequences which will otherwise soon ensue.

- Four ounces of Starch, dissolved in a quart of water;
- half a pint of sweet oil, three yolks of Eggs, well broken; and a little loaf Sugar.

This will do for twice, at four hours' distance.

It is also necessary to observe that some horses, from having weak stomachs and bowels, throw out their aliment undigested, and their dung is habitually soft, and of a pale color; they also feed sparingly, and are always low in flesh. This complaint which often proves fatal at last, may be removed by the following medicines.

- 6 drams of Socotrine Aloes. 1 dram of Myrrh.
- 3 do Rhubarb, in powder. 1 do Saffron.

Make all up into a ball with syrup of ginger. After the above stomachic purge shall have been given two or three times, a pint of the following infusion should be given every morning.

- Take Gentian, Winter Bark, Orange Peel, Columbia Root, Aniseeds, Fennel Seeds, and Camomile flowers of each a small handful and of Orris Root, two ounces.

Boil all together in a gallon of strong ale; and when cold, clear it off and add one pint of spirits of wine. If this be thought too strong; two quarts more of ale may be added. This is an excellent cordial both for healing and strengthening the stomach and bowels. These are the best methods of treating the above disorders to which horses are often subject, and in which they are often lost for want of proper treatment.

**TENTS FOR THE PROVINCIAL EXHIBITION.**—We beg to call the attention of our readers at a distance to an advertisement in this day's issue, by which it will be seen that, with a view to secure ample accommodation for strangers visiting Brockville during the holding of the Provincial Exhibition in the month of September next, and to enable such to remain together during their stay, Mr. Williams of Rochester, who is to supply the Tents for the Provincial Association, will be prepared to let out family or party tents, capable of holding from 200 to 8 or 10 persons respectively at moderate terms, which may be learned on application either to the Proprietor or D. Wylie, Secretary of the Local Committee here. These tents being perfectly water-tight, and possessing every requisite for comfort, are fully qualified to answer the purpose of any ordinary building, and parties engaging them would only require to add a few cooking utensils, Buffalo robes, &c., to make their temporary home complete. We would recommend an early application.—*Brockville Recorder.*

In calling attention to the above, we wish it to be understood that the accommodation for visitors in Brookville and neighbouring towns is not likely to fall short of former occasions; every exertion is being made by the Local Committee to get such as may visit the fair accommodated at the usual rates of charge. Parties, however, wishing to keep together, and enjoy the excitement of a novel mode of life, would do well to hire tents, and thus have an independent establishment of their own at a trifling cost. Mr. Williams is a very respectable man, and will supply a good article;—he was elected an *Honorary member* of the Agricultural Association of Upper Canada. We hear that a party from Rochester is coming with a unique tent; and that a steamer also has been chartered to leave that port, and remain in the river during the fair. Altogether the prospect is very cheering.—[*Editor Agriculturalist.*]

**STEWART'S PATENT STUMP-PULLER.**—We have been requested to call attention to this machine, manufactured by W. Willis of Orange, Massachusetts.—These machines are constructed with a power from 250 to 1,000 tons purchase, varying in price from \$50 to \$200. The American Agricultural press speaks highly of them. Any mere verbal description without an engraving, which we have not received, would be of little worth.

A sample of Australian wheat—a very remarkable variety of the common wheat—is exhibited in New York. The ears greatly resemble those of Barley; they are four cornered, and armed with stiff, strong, barbed bristles. The grain is uncommonly full and round. They talk of forty or fifty bushels of this wheat to the acre, having been raised in the course of the present season in the neighbourhood of Flat-bush.

#### POTATO ROT.

From present appearances, this district of country is more severely visited with this disease, than at any former period. Whole fields are entirely denuded of their leaves, and have every appearance of having

passed through a very severe frost; and what is entirely variant from the experience of former years, it is the early planted and early varieties that are the most severely attacked, and even those on the dryest and most meagre soils, and sand ridges, are in no degree exempt, contrary to the heretofore received opinions and experience on those points.

The late planted patches, say on the 1st of June and later, are as yet free of the disease, but if they hold out it will be an anomaly in this pestilence.

The cause is thus far inscrutable. There are no peculiar insects or worms to be found in, on, or about the vines; nor is there any particular fungus, or difform matter to be observed on the stems or foliage. From the fact that those fields which are very foul with weeds escape best, it has been argued that the disease was attributable to the effect of a hot sun, but this can hardly be applied this year, for there has been no such this season; in fact all the hypothesis fails.

It has like the cholera an atmospheric source; a virus is produced, that is carried to the tubers by the circulation, thus poisoning and destroying the whole plant.—*New Yorker.*

**PARSNIPS.**—This root has long been an inmate of the garden, and was formerly much used. In the times of Popery, it was the farmer's Lent root, being eaten with salted fish, to which it is still an excellent accompaniment. "In the north of Scotland," Dr. Neill observes, "parsnips are often beat up with potatoes and a little butter; of this excellent mess the children of the peasantry are very fond, and they do not fail to thrive upon it. In the north of Ireland, a pleasant table beverage is prepared from the roots brewed along with hops. Parsnip wine is also made in some places; and they afford an excellent ardent spirit, when distilled after a similar preparatory process to that bestowed on potatoes destined for that purpose." It is an excellent food for cows, and its fattening qualities I have already noticed.—*Farmer's Guide.*

**MONSTER BEANS.**—We have twice lately noticed the extraordinary growth of some specimens which have been shown to us, of the Rocky Mountain bean, recently introduced into this country. We believe, if we recollect aright, the former specimens measured respectively 24 and 22 inches; but yesterday we were informed by Mr. John Warcup, gardener, of Laprairie, that he has a bean growing in his garden 27 inches in length. He says that the Rocky Mountain bean is an excellent and very succulent vegetable, fully equal in flavour to the common scarlet runner of this country.—*Montreal Transcript.*

**MODEL FARM.**—We are much gratified to see by the Quebec papers, that the gentlemen of the Seminary in that city have determined upon establishing a model-farm, on the property at the Cote Saint Paul. We trust we shall not be thought officious if we solicit the attention of our friends, the gentlemen of the Montreal Seminary, to the patriotic and enlightened conduct, in this matter, of their brethren in Quebec.—*Mont. Herald.*

Fashion makes foolish parents, invalids of children, and servants of all.

Trust him little who praises him least, who is all indifferent about all.

**THE POTATO ROT.**—We mentioned in the *Commonwealth* a few days ago the substance of a conversation with Mr. Flanders on the subject of the potato rot. It may be remembered that Mr. Flanders' proposal is to sift air slacked lime upon the potatoe vines while wet with a heavy dew or rain.

On this subject Mr. Nathan Winslow, in a communication to the *Portland Advertiser*, writes that he has no doubt that Mr. Flanders is correct in his discovery of a remedy for the potato disease—both as it regards the cause and the cure. Mr. W. says personal observation last year, fully convinced him that the disease is produced by means of insects feeding upon the vine, and that he should have tried the proposed remedy and communicated the result to the public, had not the season been too far advanced when the idea recurred to him. He was induced to try lime water, from having found it effectual in preventing insects from stinging the leaves of plum trees. [Boston Commonwealth

**PACKING FLOUR.**—An experiment has been made by an inspector of flour at Cincinnati, for the purpose of ascertaining whether flour closely packed, will keep from souring as long as it loosely packed. A tight half barrel filled loosely with flour was put away in a place possessing no more than ordinary advantages as a ware house, and at the fifth year the flour became somewhat rancid and did not sour until the ninth year. This experiment has proved that flour loosely packed would be preserved in good order much longer than that put up in the ordinary manner.

**BUTTER.**—Complaints have been received from England that the butter from Canada is too much salted. This is a great fault, and if not avoided, will bring Canada butter into bad repute in the English market. There seems to be very little attention paid to this matter by butter makers, for most of the fresh butter brought into our market is so salt that it is necessary to work it through water, before it is fit for the table. [Hamilton Spectator.

**THE WHEAT CROP OF 1851.**—The reports from the various grain growing parts of the Union, indicate that the wheat crop of the present year will be the heaviest ever taken from the earth in the Western States. In Ohio, the crop is a very large and fine one. In New York, Indiana, Michigan and Wisconsin, the yield is also very large, and the wheat of the very first quality. In Michigan, particularly, the yield exceeds any thing ever known, even in Michigan.

**RAPID HARVESTING.**—In the county of Scioto, Ohio, twenty-seven acres of wheat were harvested in one day, by means of a patent reaper. The work was well done and the yield of wheat good.—*Palladium*.

Money skillfully expended in driving land by draining or otherwise, will be returned with ample interest.

Weeds exhaust the strength of ground, and if suffered to grow, may be called garden sins.

Grow nothing carelessly; whatever is worth growing at all, is worth growing well.

## Horticulture.

### THE USE OF FLOWERS.

BY MARY HOWITT.

God might have made the earth bring forth  
Enough for great and small—  
The oak tree and the cedar tree,  
Without a flower at all.

He might have made enough, enough  
For every want of ours—  
For luxury, medicine and toil,  
And yet have made no flowers.

The ore within the mountain mine  
Requireth none to grow;  
Nor doth it need the lotus flower  
To make the river flow.

The clouds might give abundant rain—  
The nightly dews might fall—  
And the herb that keepeth life in man  
Might yet have drunk them all.

Then wherefore, wherefore were they made  
All dyed with rainbow light;  
All fashioned with supremest grace,  
Upspringing day and night:

Springing in valleys green and low,  
And on the mountains high,  
And in the silent wilderness,  
Where no man passes by?

Our onward life requires them not—  
Then wherefore had they birth?  
To minister delight to man—  
To beautify the earth:

To comfort man—to whisper hope,  
Whene'er his faith is dim;  
For whose careth for the flowers  
Will much more care for him.

### MULCHING.

A "Practical Mulcher," writing from Dedham, Massachusetts, whose communication is published in the *Horticulturalist* for May, says:

I regard *mulching* as our prime and especial necessity, the most indispensable thing in North American Agriculture. For in the first place, the operation of mulching, or covering over the surface of the ground, prevents the evaporation of the moisture that is so requisite to the rooting of new plantations, to the development of luxuriant foliage; and the production of perfect flowers, and fair, juicy, large-sized fruits.—Again: the operation of mulching not only prevents, to a great extent, the escape of moisture, but also, and what is of greater importance, the passing away from the earth of the volatile gases, that are held in solution in the water, and which, sucked in by the minute mouths of the radicles or spongioles, give nourishment to the plant or tree.

That mulching is of great value in the case of young and newly planted trees, by preventing the process of evaporation, is universally admitted in theory, and to a

certain extent carried out into practice; and yet but few seem to be aware of its value in retaining the nourishment as well as the moisture in the earth, and thus, both those means, contributing to the luxurious and healthful condition of plants and trees already rooted and well established in the soil. But observation, however, as well as actual experience, has fully convinced me that trees will not only put forth more luxuriantly, and grow more vigorously, but that the fruit will be far larger, fairer, and juicier, for mulching during the hot season. And I hazard the observation, that in the culture of pears, and certain kinds of apples, such as the Roxbury russet, that are generally small and knurly on a gravelly bottom, careful mulching is almost equal to a clay subsoil.

And here let me say, by way of parenthesis, that in the cultivation of these fruits, it is not, I think, any nutritive element in the clay soil, but only its power of retaining moisture, that gives it the advantage over a gravelly substratum. By carefully mulching, however, I do not mean a wisp of straw, hay, weeds, or small brush, nor a shovel of spent tan, hub-chips, or sawdust, placed just round the trunk of the tree, but a covering of ground, if possible, as far as the roots extend. There are some absurd people who seem to think, if we are to judge them by their practice, that somewhere at the butt of the tree is a great mouth in which the tree takes its food and drink; and accordingly, they put all the nourishment, whether liquid or solid, "right round" the trunk. Whereas, the truth is, the numerous little mouths that drink in the moisture, and the nutritious elements that are dissolved in it, are in the little spongioles that form the very terminations of the radical branches; and our course of treatment should be based upon this fact, in watering, manuring and mulching.

Mulching, then in the first place, prevents, in light, gravelly soils—and in dry seasons, in all soils—the evaporation of the moisture necessary to that flow of sap, that shall make a luxuriant growth, fine foliage, and fair, large, juicy fruit.

And second, as the elements that nourish the tree are contained in the moisture in solution, and a dry state of the earth must thus cut off the supply of food, mulching actually nourishes the tree. In proof of this, I might, would my space permit, adduce numerous facts; but experiments are so easily tried, that such evidence is hardly necessary here.

#### LIQUID MANURE FOR FRUIT TREES.

It is a fact satisfactorily established with me that there is nothing connected with a farm in the line of fertilizers, that appears to produce a greater effect on fruit trees than liquid manure. Thousands of gallons of this invaluable fluid are wasted on farms annually, which, if applied to the trunks and roots of trees, would benefit them ten times more than it would cost to make an application of the liquid. No one need apprehend any danger in applying it, for it bites not, nor does it cause any serious derangement in the olfactory region. Where trees have been injured by drought, and have been set out heedlessly, it produces a most striking effect, causing a circulation of the sap at once astonishing. It is unquestionably preferable to solid manures, for its effect is almost immediate. It penetrates the pores of the earth and comes in contact with the roots and fibres as soon as an application is made; whereas, in apply-

ing coarse manure, such is not the case, it requiring several showers to wash the strength of it out.

The manner in which I have applied it is to dig a cavity around the body of the tree, and then fill up with the liquor. In a few moments, it will be absorbed ready for replacing the dirt, thus preventing evaporation. The introduction of a paifull around the trunk of a tree, at an interval of a month during the growing season, is sufficient to produce the most astonishing results. An extraordinary growth immediately commences and shoots are forced out in a few weeks, truly astounding both in length and size. I have tried soap suds and am convinced that they do not contain all the invigorating and enriching powers common to liquid manure. It must be acknowledged, however, that soap suds are efficient, causing a rapid growth when judiciously applied, but not equal in my opinion to the liquid.

Now, without being considered wayward in advancing ideas, I would suggest that those who have the fluid on hand, and are not backward in coming in contact with dirt, would try the liquid and see if the effects are not satisfactory.

W. TAPPEN.

Baldwinsville, N. Y. August, 1851.

#### THE VALUE OF TREES

Beside their intrinsic value, how desolate is a home on a farm or in the city, without fruit or ornamental trees. To the generality of people you might as well recommend a person without mind, as offer to sell a homestead without trees or shrubbery. One thing should be observed in planting, to select good varieties of fruit trees, as it is a disgrace to any one to plant and grow others. Be mindful of these things and a reward will follow.

We are reminded of this subject by a sale of land just made in this vicinity—one particular advantage and inducement to the purchaser being the assortment of choice trees already grown to his hands.

J. H. W.

#### THE USE OF FRUIT.

Instead of standing in any fear of a generous consumption of ripe fruits, we regard them as positively conducive to health. The very maladies commonly assumed to have their origin in the free use of apples, peaches, cherries, melons and wild berries, have been quite as prevalent, if not equally destructive, in seasons of scarcity. There are so many erroneous notions entertained of the bad effects of fruit, that it is quite time a counteracting impression should be promulgated, having its foundation in common sense, and based on the common observation of the intelligent. We have no patience in reading the endless rules to be observed in this particular department of physical comfort. No one, we imagine, ever lived longer or freer from the paroxysms of disease, by discarding the delicious fruits of the land in which he finds a home. On the contrary, they are necessary to the preservation of health, and are therefore caused to make their appearance at the very time when the condition of the body, operated upon by deteriorating causes not always understood, requires their grateful, renovating influences.—*Boston Medical and Surgical Journal.*

**THE GREEN ROSE.**—The Raleigh (N.C.) Register, in copying the account of the production of the blue rose at Paris by artificial crossings, adds the following notice of the green rose, which is to be found in some portions of that State:—

“ We can add to this the green rose of North Carolina, which, though the creature of science, is sufficiently well known in parts of this State to claim a rank among the above floral novelties. The rose is identical with our common Dahlia, except in color, the variation in which is supposed to have been produced by the accidental intermingling of the roots of the rose tree with those of the common sumach. The peculiarities of the new varieties are perpetuated by cuttings or otherwise. It is quite common in the county of Bladen, and some few specimens exist in the town of Fayetteville.”

**BLUE ROSE.**—The horticulturists of Paris, (says a correspondent of the New York Express,) having succeeded by artificial crossings in obtaining a natural rose of a blue color, which is the fourth color obtained, by artificial means—that and the yellow or tea rose, the black or purple rose and the striped rose, being all inventions, and the result of skilful and scientific gardening.

**TO KEEP PRESERVES.**—Apply the white of an egg, with a suitable brush, to a single thickness of white tissue paper, with which to cover the jars, overlapping the edges an inch or two. No tying is required the whole will become, when it dries, as tight as a drum.

**GOOSE BERRIES.**—We have been presented with a few Goose Berries from the Garden of Mr. Wm. Reeves, West Belleville, one of which measured 4½ inches in circumference. Who can beat it?—[Belleville Intelligence.

**WEATHER SIGNS FROM PLANTS.**—Some one has said that not only the coming weather may be foretold by an acquaintance with flowers, but also the time of the day and the time of the year; and, in fact, Linnaeus possessed such a knowledge of them that he needed neither watch, nor calendar, nor weather-glass. Lord Bacon observed that when the flowers of the chick-weed expanded fully and boldly no rain will succeed for some hours or days. If the flower of the Siberian sow-thistle keep open during the night, rain it is said, is certain to fall the next day. The leaves of the trefoil are always contracted at the approach of a storm. If the African mari-gold does not open its flowers by 7 o'clock in the morning, rain may be expected with certainty on that day. An uncommon quantity of seeds is produced by white thorns and dog rose bushes in wet summers, and this is considered a sign of a severe winter. Many plants with compound flowers direct them towards the east in the morning, carefully following the direction of the sun, and appearing towards west in the evening; but before rain they are punctually closed as, with the tulip. A species of wood sorrel doubles its leaves before storm, but unfold them under a clear sky. Cassia and the sensitive plant do the same. The flowers of the pimpernel appearing widely open in the morning indicate a fair day, and, if the petals are closed rain may be expected soon. Nettles appearing abundantly in winter indicate a mild season.

**AN ORCHARD OF OLDEN TIMES.**—In 1597, John Gerarde published in London, a work on farming and gardening, in which, to encourage those of his day to plant or-

chards, he says.—“ The tame and grafted apple trees are planted and set in orchards for that purpose. Kent doth abound in apples of most sorts, but I have seen in pastures and hedge-rows, about the grounds of a worshipful gentleman dwelling two miles from Hereford, called Master Roger Bodnomo, so many trees of all sorts that their servants drink but what is made of apples. The quantity is such that by the report of the gentleman himself, the *parson hath for tyth many hogsheds of cyder.*—The hogs are fed with the fallings of them, which are so many that they make choice of the apples they do eat, who will not taste of any but the best—an example doubtless to be followed by gentlemen who have *any vine living.*”

**LARGE CARGO OF FRUIT.**—A schooner arrived at New York from Baracoa, on Wednesday, bringing 12,298 pine-apples, nearly 12,000 plantains, 9,000 coconuts, about 100,000 bananas, and over 1,500 boxes of oranges.

The Irish Census

ABSTRACT OF THE IRISH CENSUS IN 1841 AND 1851.

Houses: Inhabited .....	1,328,839	1,047,735
Uninhabited, built ..	52,208	65,159
building	3,313	2,113
Total .....	1,384,360	1,115,007
Families .....	1,472,287	1,207,002
Persons: Males .....	4,019,576	3,176,727
Females .....	4,155,548	3,339,067
Total .....	8,175,124	6,515,794
Population in 1841 .....	8,175,124	
“ 1851 .....	6,515,794	
Decrease .....	1,659,330	
Or, at the rate of 20 per cent.		
Population in 1821 .....	6,801,827	
“ 1831 .....	7,767,401	
“ 1841 .....	8,175,124	
“ 1851 .....	6,515,794	

Or, 286,033 souls fewer than in 1821, thirty years ago.

A considerable proportion of the deficiency in the Irish population is attributable to the scarcity of food, to the sufferings of the poor from the want of fuel and shelter during inclement seasons, and to the scourge of the cholera, diarrhoea, influenza, and other epidemic and endemic diseases, which have been carrying on their destructive operation in that country with unusual force during the last ten years. The principal cause of deficiency, however, will not be found in these evils, but in the progress of emigration, affecting the population throughout the whole of the term under consideration, and during the last two or three years, at a rapidly increasing ratio. During the last ten years the emigration from the United Kingdom has amounted to above 1,600,000 of which amount, Ireland has furnished more than its natural proportion, sending out numbers by whose departure the country has been in some parts completely drained of its population. This fact is referred to for the purpose of noticing a feature it presents, and which, if it should not at first attract attention, ought to be considered, as it furnishes an element of importance in any calculations that may be made for the purpose of accounting for the strange aspect which the Irish census of

year will present. It should then be observed, that the emigrants from Ireland generally are not the aged nor the very young, but persons whose removal would in a few years sensibly affect the natural increase of the population by the increase of births over deaths. The necessary consequence has been, that great numbers of those births which would have been registered in Ireland have been registered in the United States or the colonies, and many of them in this country.—*News of World.*

**LORD BROUGHAM.**—There is reason to apprehend, has found it necessary to retire, for a time at least, from public life. His restless, and to himself resistless, energies, have it is feared, proved more than a match for a constitution certainly of much greater than ordinary strength, and in the maturity of his intellectual greatness—at a period of life distant from advanced age—Lord Brougham finds himself compelled to seek retirement and repose. It has been said of many men that only in business—only when actively employed—they were at rest. No other description would accurately portray Lord Brougham. Occupation was his idol; and his biography, be it written when it may—and the day is distant, we trust, when his character and his labors will become matters of comment or description to his successors—will disclose an amount of work performed by a single individual, which, when looked at in the mass, will appear incredible. The law was his profession; but in science, in literature, in legislation, in politics, in moral and physical philosophy, in all, the observer of the times will find evidence of the activity and of the great ability of Lord Brougham. To him we owe much of the education, and many of the educational institutions of our era—an era of which he himself will ever stand forth as one of the most distinguished ornaments. His Lordship has quitted town for Brougham Hall. In the debate on Chancery Reform on Monday week, His Lordship alluded to the infirm state of his health, which, he said, would preclude him from taking any further part in the business of the Session, but spoke as forcibly as ever in reprehension of the enormous vexations, delays, and costs attendant upon the simplest proceedings in Chancery.

Mr Silk Buckingham has at length succeeded in his long contest with the East India Company for indemnification for his losses as an Oriental Journalist. The Bill before Parliament for restitution has been withdrawn, the Court of Directors and the Government having agreed to settle upon him a pension of £400 per annum.

**KILNS.**—Joseph Christian Davidson, of Yalding, Kent, Brickmaker, for improvement in lime and other kilns and furnaces. Patent dated November 2nd, 1850. 1. Mr. Davidson's improvements have relation to lime kilns, in which, as usually constructed, the fire has been lighted in the kiln underneath an arch built of the limestone to be calcined. According to this method, a great waste ensues from pieces of the stone chipping off by the action of the heat, and falling into the fire, from which they have necessarily to be removed. It is now proposed to have the fire-place alongside of the kiln, and to conduct the flame and products of combustion through the side of the kiln, to act upon the limestone, which is to be piled in the kiln on an arch built in the usual manner and so as to act as a reticulated flue. 2. The same principle is applied to the kilns used for baking bricks, the fire-places being arranged at the

side of the kiln, in such position as to make the openings in the wall thereof the throats of the furnaces.—*Mechanics' Magazine.*

**THE FAMOUS ST. CHARLES INDIAN BREAD.**—Receipt for making the St. Charles Indian Bread as prepared at the St. Charles Hotel, New Orleans:—

Beat two eggs very light, mix alternately with them one pint of sour milk or buttermilk and one pint of fine Indian meal, melt one table spoonful of butter and add to the mixture, dissolve one table spoonful of soda or salaratus &c., in a small portion of the milk and add to the mixture the last thing, beat very hard and bake in a pan in a quick oven.

The above receipt, Mr. Editor, was sent by a lady friend in South Carolina, to the lady of a neighbor of mine, in the upper end of our country. I have eaten of the bread, and unhesitatingly pronounce it the very *ne plus ultra* of Indian Bread.—[Germantown Telegraph.

**HOW TO TOAST BREAD.**—If you would have a slice of bread so toasted as to be pleasant to the palate, and wholesome and easily digested, never let one particle of the surface be charred. Chestnut brown is even too far deep for good toast; and the color of a fox is rather too deep. The nearer it can be kept to a straw color, the more delicious to the taste, and the more wholesome it will be. This is done by keeping the bread a proper distance from the fire, and exposing it to a proper heat.

**A NEW REMEDY IN DIARRHEA, CHOLERA INFANTUM AND CHOLERA MORBUS.**—We have the following recipe, says the Tribune, from the Professor of Chemistry in the New York Hospital: "I would wish, through the medium of your paper, to give publicity to the fact, that I have seen instant relief given in cases of Diarrhea, by the use of Hydro-Sulphuric Acid, a tea spoonful of a saturated solution being mixed with four times its bulk of water. Also in a case of Cholera Infantum, in which the child was very much reduced, and the stomach in an extreme state of irritability, so that nothing would be retained, this remedy was administered with ease and the child immediately improved, and has since recovered. Believing that this is a new remedy, and that there is no reason to apprehend any effects where it does not produce a cure, and believing that it has some specific effect in counteracting the cause and immediately arresting the disease, I am yours, respectfully, Laurence Reid,

**THE CHARM OF AN OLD HOUSE.**—"I love old houses best (says Southey,) for the sake of oad closets and cupboards, and good thick walls that don't let the wind blow in, and little-out-of-the-way polygonal rooms with great beams running across the ceiling—old heart of oak, that has outlasted half a score of generations—and chimney-pieces with the date of the year carved above them, and huge fire-places that warmed the shins of Englishmen before the House of Hanover came over. The most delightful associations that ever made me feel, and think, and fall a dreaming, are excited by old buildings—not absolute ruins, but in a state of decline. Even the clipped yews interest me; and if I found one in my garden that should become mine, in the shape of a peacock, I should be as proud to keep his tail well spread as the man who first carved him."

## Editor's Notices.

**NOTICE TO SUBSCRIBERS.**—The publication of our next number will be delayed a few days, in order to give a full and correct report of the proceedings of the Brockville meeting. We purpose printing a list of all articles entered as well as the premiums;—a course which we have been given to understand would be interesting and satisfactory to a large class of our subscribers.

**SALT AS A MANURE.**—G. M.—We will either write you privately or prepare an article for the *Agriculturist* on the various points of your enquiry, as soon as we can command a little leisure. We have applied Salt in the old country to different crops, with but little apparent effect. When it can be obtained sufficiently cheap, it may be advantageous to use it in preparing composts; and that it may have on some soils, particularly in situations remote from the sea, a beneficial influence on vegetation is more than probable. Of its value, however, as a steep for seed grain, there can be no question. The farmer cannot pay too strict attention in selecting and steeping his seed wheat; the neglect of this precaution causes an immense annual loss.

**STATE OF THE CROPS, &c.**—The weather of late has been favorable for completing the harvest, which with the exception of Indian Corn and a few late spring crops, may now be said to be secured in Upper Canada. The yield of wheat will vary much in different localities; the frost and weevil having done serious mischief in some parts, and the rust will be found to have injured the quality in others. The quantity, however, may be upon the whole, considerably above an average; but from the wetness and low temperature of the summer, and the heavy rains that fell during the first half of the last month, we are much inclined to think that the quality will be found, in several places, considerably injured. All kinds of spring grain are abundant, particularly in straw. Indian Corn is backward, but considering all circumstances is looking healthy; much will depend, with regard to this crop, on the character of the present month. Hay is heavy; but the quality to a large extent owing to over ripeness and wetness of the weather, will be found inferior. The potatoe disease has manifested itself generally since our last issue, and, judging from the appearance of the haulm, the mischief seems rapidly increasing. We have recently been through a considerable portion of the central and eastern sections of the Province, and observed scarcely a field or garden that was not more or less affected.—The accounts from the United Kingdom and Europe generally, continue favorable as to the crops, and very little is said of the potatoe blight; prices continue rather to look downward. In Toronto the amount of business doing is as yet very limited; most of the wheat offered being out of condition; selling at about 3s. 6d. per bushel.

**THE VALUE OF WELL BRED STOCK.**—We find it stated in an English paper that that unrivalled breeder of South Down Sheep, Mr. Jonas Webb, of Cambridgeshire, who won 7 prizes for Southdowns at the recent Windsor show; obtained at his last annual letting, as hire for the use of a ram, which though

exhibited at the Royal Agricultural Show at Exeter, last year, was not successful there, the sum of 99 guineas!

**HORSE MEDICINES.**—We perceive that Messrs. Leach and Paul, Veterinary Surgeons of this City, have announced their intention to supply country merchants with carefully prepared medicines, ointments, linaments, &c., for the various diseases and accidents to which that noble and useful animal—the Horse—is liable. If this project is extensively carried out, it will confer a real boon on farmers; particularly those residing in distant places, where the services of skilful farriers, or even the commonest remedies can seldom be obtained. The extensive experience of those gentlemen affords the public a guarantee against quackery, and the many worthless nostrums now so commonly imported from the States.

**THE FARMERS' GUIDE, No. 22.**—This number which we have received through Mr. Rowsell, of this City, completes the work. We have on several previous occasions expressed our high opinion, in common with the whole British and American Press, of the merits of this thoroughly practical and scientific publication; which brings down to the present hour the various improvements that have been introduced into the practice of Agriculture, in the best cultivated districts of England and Scotland. Professor Norton's American Notes give it an additional value to farmers on this side the Atlantic. The "*Farmer's Guide*" may now be obtained complete in two large octavo volumes containing 1,600 pages, including 600 woodcuts, and 14 engravings on steel, handsomely bound, for the extraordinary low price of six dollars! We say to our readers—*to young farmers especially*—procure at once this standard publication, study it, make yourselves masters of its contents, and we are sure that you will thank us for having brought it under your notice. The enterprising American Editor and Publishers are eminently deserving the thanks and cordial support of every intelligent and improving farmer; a class of men that is every day increasing.

**TORONTO MECHANICS' INSTITUTE.**—The Directors of this valuable and prosperous Institution will, we are happy to learn, get up another of their attractive and instructive Exhibitions of the works of our Colonial industrial arts, which have elicited so much praise, and imparted no less instruction and pleasure in former years. From all we hear the approaching Exhibition bids fair to outstrip any of its predecessors. We hope all our country readers coming to the city will avail themselves of the opportunity of visiting the Exhibition, which they can do for a mere nominal charge.—It will commence on Wednesday, October 1, and continue open for a fortnight.

**TALLOW MAKING IN AUSTRALIA.**—It is reported on reliable authority that no fewer than 743, 513 sheep, and 45,050 horned cattle were boiled down for tallow in 1849, in the two colonies of New South Wales and Port Phillip. This business is rapidly on the increase. What vast means of sustaining an indefinitely increasing population does mother earth yet possess!



**THRASHING MACHINE.**LETTERS  PATENT.**Time and Labor Saved are Money Earned.**

**T**HE SUBSCRIBERS having secured to themselves the exclusive right of manufacturing and vending to others to use within the territory of Upper and Lower Canada,

SEVERANCE'S CELEBRATED IMPROVED HORSE POWER & THRASHING MACHINE one of the most valuable time and labour saving Machines ever devised by human ingenuity, respectfully inform the public that they have just completed a new and extensive Factory on Wellington Street, extending from Prince to George Street, which gives them more than double the accommodation they had in the old shops, which will hereafter, they trust, enable them to supply the whole farming community of the United Provinces with a Machine that will thrash and clean more grain in a day, with less expense and with greater cleanliness, than any other known invention—only requiring two horses.

We beg leave to say to our customers and friends, that we are again prepared to furnish those in want of Thrashing Machines with an article superior even to those heretofore manufactured by us.

Our long experience in making and the very liberal patronage we have enjoyed in the sale of our Machines, has, together with a constant determination to produce an article that will never fail to excel all others, caused us to watch carefully all the improvements that could be made from time to time, until now we feel confident in saying, that for durability, neatness of work, and amount of it they can do, our Thrashing Machines are unequalled by any in use. And while the grain is thrashed clean and none of it broken or wasted, it is at the same time perfectly cleaned, fit for the mill or any market.

All orders addressed to us or our Agent, Wm. Johnson, will be promptly attended to.

Machines shipped to any port in Canada, and every one warranted to be as good as recommended.

Liberal terms of payment allowed.

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