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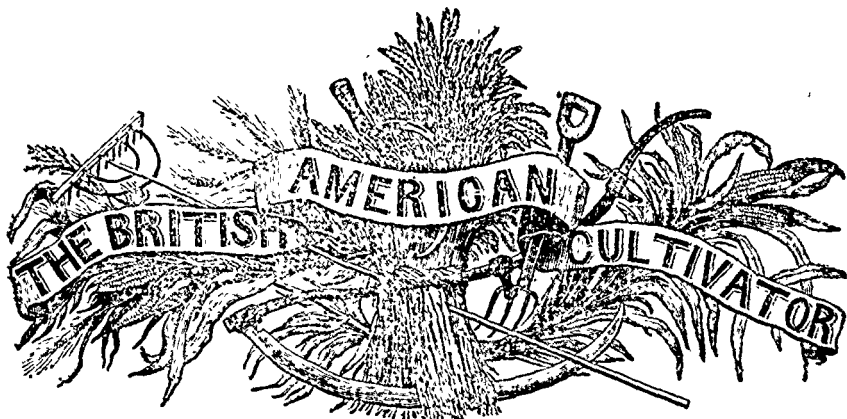
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"Agriculture not only gives Riches to a Nation, but the only Riches she can call her own."

New Series.

TORONTO, JANUARY, 1846.

Vol. II. No. 1.

The Canadian Farmers' Prospects.

In presenting the first number of this volume of the *Cultivator* to our numerous readers, it may not be thought out of place to devote a few columns to the highly interesting and important topic which heads this article. This is probably the most golden year, that ever dawned upon this Province, for which every inhabitant, who has any interest at stake, ought to be thankful to the ALL-WISE CREATOR. Abundant crops and high prices are apt to make the thoughtless prodigal in their expenditure of money; and many are too apt to forget their former embarrassments, through the influences of bad harvests, and look only upon the present bright side of the picture. The produce of the soil, especially wheat, gathered the past harvest in Canada, is probably double that of any previous year; and owing to the failure of the wheat crop, and the potato epidemic on the Eastern Continent, there is every probability that the price of provisions will be higher between this and the ensuing harvest, than has been the case for the last twenty years. The enlightened statesmen of most of the European nations have, through their regard for the welfare of the industrious operatives and peasants, repealed or suspended for a time the statutes which restricted the admission of provisions in their ports, and by wise enactments are doing all in their power to mitigate the sufferings of the hal-starving poor. Notwithstand-

ing all the precautions that humane Governors can possibly observe, the misery and wretchedness which the poor will have to suffer, will be very great, owing to the alarming failure of the potato crop; and although former restrictions in trade may be erased from the statute-books, for the time being, still there can be no question but that the price of bread-stuffs and other provisions, will be exorbitantly high before another harvest.

The agriculturists of Canada have some advantages to gain and much to lose, from the failure of the crops, of which we have given a cursory description; and in our opinion the present gain from high prices, will come far short of atoning for the loss which will result from the changes which will be effected in the British tariff, before the lapse of six months. It may startle some of our sensitive readers, when we announce to them that the Canada Corn Bill, which was about doing so much good to this colony, will probably, by the arrival of the next steam-packet, be finally repealed, and free trade in bread stuffs be enacted in its stead. Nothing now appears more certain, than the immediate abolition of every restriction which prevents the admission of corn into the British ports. It is useless to utter a single complaint, inasmuch as the condition of the poor, and possibly the interests of the nation, require the repeal of those laws which, of themselves, have a tendency to place

so high a value upon the staff of life, that the indigent are comparatively deprived of the common necessaries of life, and hundreds of thousands are to be seen crying aloud for bread, whilst millions of bushels of wheat are locked up in the bonded warehouses. We have never advocated the repeal of the corn-laws, nor have we a desire to do so at the present moment; but it appears clear to our mind, that nothing short of a total repeal at this crisis, will establish order and good feeling among the British people. Anything that the people of this colony may say or do in this matter, will not have the slightest influence upon the minds of British statesmen, when legislating upon so great a question as the one under discussion; and therefore it would be wise for parties to make up their minds to aid in developing the abundant resources of wealth with which Canada abounds, by which means as good a market may be established for the productions of the soil in our own country, as can be had across the Atlantic. By holding out proper encouragement to the various branches of the mechanical arts, thriving towns will spring into being, in sections of the country where nothing now is to be seen but the howling wilderness and the water-fall. The inhabitants of these towns will consume the surplus productions which our farmers may have to dispose of, and their industry will furnish the materials we now purchase from abroad.

The great boon which we are about losing, perhaps never to regain, can be fully made up by the adoption of a sound system of encouraging manufactures, and working the vast minerals which abound in several sections of the province. It would be premature to enter more fully into the merits of this question at this time, because it is not yet positively known what course the British Ministry will pursue in regard to the repeal of the Corn Laws; but our agricultural friends in Canada may rely that no effort shall be spared on our part in steadily advocating their true interests.

potato blight.

The greatest calamity that has befallen the labouring classes in the present age, is the disease which has attacked the potato crops of Europe and America. The failure of the crops through this disease, has been so considerable, in the British Isles and the northern countries of Europe, that the greatest possible degree of desolation in

some districts is reported. The amount of damage from this source is yet unknown, inasmuch as the gathered crops are suffering more severely than those that were affected in the fields. In some sections of Canada and the United States, the farmers will have to purchase their seed; but from the best information we have received, the potatoes have been attacked only in a few localities in this country. No satisfactory cause has yet been given of this disease; and although the most scientific men of the age had given the subject much of their attention and research, the whole matter, up to a late period, appeared enveloped in inexplicable mystery. Professors Kane, Playfair, and Landley—three of the most scientific men in Britain—hold a commission under Government, to enquire into the disease which has attacked the potato crop in the United Kingdom, and their first report has reached us, in the *London Gardeners' Chronicle*, which has been published by the Irish Government, and distributed by means of the constabulary through the whole island.

Although a number of suggestions have been made by the commissioners, still they do not feel justified in proposing any mode of positive treatment; but they have led the public to anticipate that the true cause, and origin, and mode of preventing this disease, will appear in their next report.

We shall look forward for the receipt of this report with much anxiety, and shall give it as early an insertion in this journal as possible. Agricultural chemistry will now be brought most usefully into requisition, and we doubt not, but that through the means of correct analysis, that the commissioners and others, who are investigating the disease, will be able to solve the question which has confounded the wisest men in Christendom.

Many writers attribute the potato disease to a fungus production, and have recommended the application of alkalis, as a means of preventing the infection. The best evidence we have at hand to prove this theory correct, is the fact that the potato crops grown upon land recently cleared from the forest, have, so far as our experience goes, entirely escaped the attacks of the disease. In this view be correct, a majority of the Canadian farmers need have no dread of a failure of their potato crop.

Unless the progress of the disease be checked

the cultivation of the potato will prove an entire failure in Europe, and probably the same calamity will be realised in the oldest cultivated sections of America. For fear that all human means will fail in entirely preventing the ravages of the potato murrain, we would advise those of the Canadian farmers who have for so long, to bring it into cultivation, to chop, clear, and plant as large an area with this crop the ensuing season as their circumstances will admit; and if this method be adopted, we feel about confident that an abundant crop will be harvested, to supply the home demand, and a large surplus for exportation.

Garrett's Drilling Machine.

A late number of the *Agricultural Gazette* contained the following description of a drill which we would gladly see introduced in the oldest sections of the wheat-growing districts of Canada. Its cost at first view would appear the chief barrier to its use in this new country, but it will be seen to be a span of horses, with the aid of this machine and a man, will drill from twelve to sixteen acres per day, and of course the same era of crop could be had as by the use of a team with this machine. All who have experience in drilling grain are aware that the labour must be in a good state of cultivation, and free from stones and stumps. There are tens of thousands of acres of such wheat land in Canada; and in our opinion it would be the means of increasing the crops upon such land if the seed were sown in drills, and the crop horse-hoed. The English Agricultural Societies have done much to improve the agricultural machinery of Great Britain, whereby the spirited farmers of our fatherland have been enabled most successfully to compete with the foreigners in the productions of the soil; and it appears to us, that with the present encouragement given to Agricultural Societies in Canada, that the latter institutions might do much in this respect to check the evils which result from competition with the farmers of the West-India States. To encourage a spirit for improvement in this particular, we purpose to devote a considerable space in our paper in giving a description of the most valuable farming implements in use:—

"I purchased last year one of the Garrett's drills and patent horse-hoe, harrow, &c., (so I call the drill), which cost me less than £30. I have used the drill for wheat &c. I drill, when (averaging 9 inches apart) 8 rows at a time, leaving a wider space in the centre, so that I may at one glance see

the track which the drill took when the grain comes up; I have then no difficulty in using the horse-hoe, as there is a guide to lead the horse, and I am enabled to follow the track which the drill took with ease. I have drilled at the rate of 4 to 6 pecks per acre, and have obtained as much per acre as when I used to sow 12 pecks broadcast, which I consider as great a saving as your correspondent's dibble. I can use the drill, without any extra spindle and cups, for sowing turnips, by mixing from 2 lbs. to 3 lbs. of turnip-seed with 2 pecks of charcoal dust and 2 pecks of dry superphosphate of lime, and drill at the rate of 4 pecks per acre of the mixture; the seed having been previously steeped, soon comes up in dry weather. I have used the horse-hoe for hoeing between the rows of turnips, and it answers well; and the hoes may be so set (that is, to width and depth), that when your crop of turnips are ready for getting up, as many rows may be cut off within the ground as you had drilled, leaving only the tap roots in, which are of little value. The hoes may all be taken off, and harrow-tines fixed in their place; if one tine be not sufficient, two may be added to each lever. Each lever acts independently, and two weights are attached to each; by using it without any weight, a very light harrow is formed for grass and other light seeds, and it is so constructed that you can regulate to any depth the same as the hoes are; by attaching one weight, a heavier harrow is formed, and, by putting the two still more so. I find it very useful for harrowing wheat, the contrary way to what it was hoed; as it is lifted up by a lever, it is much easier than the common harrow. I have no hesitation in saying, that, by drilling wheat and the free use of this horse-hoe, &c., (so that nothing is allowed to grow but the grain drilled), as great a produce may be obtained from a small quantity of seed as by any other method. The horse-hoe may be used in any weather than the hand-hoe, as weeds are readily cut off by the latter, and replanted by the former on them; the former leaving the land lighter, and the weeds more likely to die. By its contrivance, rake-teeth may be attached to the lever, thus making an excellent horse-rake. — *Wm. Marston, Ascott, near Shrewsbury.*

Home Clothes — Gloves, in coarse powder 1 ounce; in fine powder 1 ounce; lavender flowers, in coarse powder, 1 ounce; lemon-peel, in coarse powder, 1 ounce. Mix, and put in little bags, and place them where they are to be kept, or wrap the clothes round them. They will also keep off insects.

Forbearance.—How many of the ills which embitter life and even render existence a burden, might be avoided could we but learn to bear and forbear. Perfection in every respect we should not expect of every one, and if we would crave mercy for our own faults, we should treat those of others with lenity. Most of the jarring discords which interrupt civil and social harmony, have their origin in petty contentions, where a little forbearance in the outset would have restored to peace. How often will a word fitly spoken unite the conflicting interest of party, and cause contention to cease, as a drop of oil will calm the troubled waters of a reservoir, but let the discord break into open strife and words can no more restore harmony than rivers of oil can stay the elements when the windows of heaven are opened and winds and waters are sweeping the earth, as with the besom of destruction. To "forgive" and "forget" injury is always wise, but none are so degraded as to be reproached, and not feel it, or insulted without writhing. Even to the most debased, insult is like a poisonous dagger driven to the heart's core, there to rank and corrode, while occasional circumstances of the wound afresh and keep forever alive the festering sore.

Ease and luxury cannot confer felicity if the possessor is constantly engaged in luctation. Rather dwell in a corner of the house than live in peace, than in princely mansions and live life embittered by strife. The luxuries of every clime if accompanied by discord, are less desired than a dinner of herbs, though those herbs were wormwood and the seasoning gall.

An Agricultural Address delivered by Dr. Holmes, Editor of the Maine Farmer, before the Franklin Agricultural Society at Farmington, October 16th, 1841

We have read with much delight the kind and zealous Doctor's Address, and have generally concluded that our subscribers would read with profit such paragraphs as have general application to the great interest of improvement in agriculture.

Before entering into the details of the address, we beg to submit a few suggestions for the serious consideration of the Officers and Members of the Canadian Agricultural Societies, Europe, and especially in Great Britain, it has been the custom to have a substantial Farmers' Dinner prepared for the Members of the Society and friends of agriculture, at the close of each agricultural exhibition, after which subjects connected with the agricultural interest are frequently practically discussed, and experiments are reported, and the substance of the proceedings is published in the local journals, the benefit

of the farmers in general. This course is wisely adapted to bring agricultural societies into favor with all classes, and both landlord and farmer freely contribute their money and influence in sustaining those societies, in a manner which does honor to both the patrons and the nation. In the United States a different system prevails, but the results are very analogous in point of practical utility. It is the practice in the latter country, to appoint, some weeks previous to the agricultural exhibition, a competent person to deliver an appropriate address, which is prepared expressly with a view of giving a stimulus for agricultural improvement in the locality in which it is delivered. These addresses, of which Dr. Holmes' is a fair specimen, occupy in an average of cases, about one hour in the delivery; and they are published in the newspapers, or in circulars, which are distributed at the expense of the society, or are sold at a nominal cost. It is needless to state that the written speeches or documents alluded to have exerted a powerful agency in cultivating a taste for agricultural literature in our neighbouring country, and have probably effected more than any other influence in inducing the farmers, through agricultural societies, to confine their efforts to improve the agriculture of their country.

We have, in a very cursory manner, described the practice of the agricultural societies in Great Britain and the United States, which we trust will be copied by the agricultural societies of this Province. We have frequently been tempted to expose such of the very objectionable proceedings that we have witnessed at the Agricultural Dinner parties of this part of the country, but upon due consideration, resolved rather to embrace every favorable opportunity to impress upon the friends of Canadian agriculture the importance of effecting a reform in the particular as soon as possible. If a mode be required, we would point to the highly praiseworthy proceedings of the Mercantile Agricultural Association of the Johnstown District, which took place last winter in the town of Brockville, an abridged account of which was published in the early numbers of the last volume of the *Cultivator*; such a patriotic course, if practiced by the general and local agricultural societies of Canada, is wisely calculated to bring about the good for which agricultural societies are mainly established to accomplish, and we truly hope that the subject will re-

ceive at the hands of the Canadian yeomanry that attention which it so richly merits:—

“The first Agricultural Society that we can find on record was established at Berne, in Switzerland, in 1756. It was composed of men of great weight in the republic,—men well acquainted with the theory; and well qualified to join the theory with the practice.

From their example have sprung up innumerable Societies, now existing in almost every civilized country. By the examples which they have set, and by the incentives which they have held forth to excite a spirit of improvement, they have greatly contributed to the advancement of agriculture, and have raised it from the despised and neglected situation into which it had been suffered to sink, to its proper rank among the arts and sciences. Yet notwithstanding the exertions which have been used, and the attention which has been paid to it, how few of those whose immediate business is the practice of it, are acquainted with the true principles of their art! And why is it, that notwithstanding from the fall of Adam to the present moment, mankind have been compelled to look to the produce of the earth for their daily bread, and to get that produce by the sweat of their brows, yet so many are ignorant of the theory, and so little (comparatively speaking) is done towards putting what is known into practice?

The causes of it may be several. Till quite lately, observes one speaking on this subject, no distinct theory has been laid down as data, upon which experiments might be instituted. An ignorance of what is the true food of vegetables, and what laws are ordained by nature for the assimilation of their food, and consequently the growth of the plants, is undoubtedly one reason of it. Another cause, undoubtedly, is the difficulty of making and conducting experiments accurately and decisively. In mechanics, in chemistry, &c. an experiment is soon made—easily managed and repeated,—but in agriculture, years must pass away before experiments can be thoroughly tried; and then some trivial circumstance, unseen, or if seen, unheeded, may either cause it to fail or lead us to draw wrong inferences. Were we as capable of dealing out to vegetables their food as easily as we can to animals—were we as capable of ascertaining in a moment what was suitable for them and what was best—how much was necessary and how much injurious, we could soon establish rules to guide the husbandman, as certain and unerring as mathematical demonstration.

Another cause may be an unaccountable pro-
pensity of the majority of our farmers to *plod*
along in the safe steps that their ancestors did.
But it is with pleasure that we see these deep
prejudices giving way, and that our farm-
ers, influenced by the example of the more
improved, begin to reason, and leave the trodden
path of their progenitors when they find it wrong.

and proceed in the path which experience and philosophy point out.

‘Nothing is more wanting (says Davy) in agriculture than experiments, in which all the circumstances are minutely and scientifically detailed. This art will advance with rapidity in proportion as it becomes exact in its methods. It cannot be expected, however, that our fathers, who have grown grey in one mode of cultivation, should totally reverse their practice—retrace their steps, and in the evening of their days begin anew the alphabet of science. It is enough for us that they have started the spirit of improvement and enabled us to pursue it—that they have given us advantages which they possessed not, and placed us in a situation to profit by their errors. We should be ungrateful to them, and we should be doing injustice to those who are to inhabit the earth when we sleep in its bosom, if we did not use every exertion to do away error and establish truth.

This can be done only by indefatigable industry, strict observation, and fair deductions drawn from experiments, conducted upon just and scientific principles. A mere smattering of knowledge is not sufficient—it will do more hurt than good. It requires, to be sure, but a slight knowledge of chemistry to examine and ascertain some of the ingredients of a clod of earth; but this knowledge will fall far short of explaining every combination which takes place under the eye of the agriculturist. Nor is a knowledge of chemistry (useful and necessary as it may be,) the only science which is wanting to make a good practical farmer.’ Another writer observes, that ‘in agriculture, as in the wide and extensive profession of law, for instance, there is no science which may not at some time or other be useful and even necessary to guide us on our way.

It is not merely the production of bread that renders agriculture a pursuit worthy of attention. The savage can satisfy his hunger with the game which he takes in the chase. The Barbarian may subsist upon the milk and the flesh of his flock, without troubling himself with the culture of the earth. Nor is it merely for the sake of individual ease and comfort that we would recommend it to your consideration. It has a great and an important influence upon the character and happiness of every nation which has wisdom to cherish and foster it. It may be considered one of the most powerful links in the bond which holds communities together. Without agriculture, says Chajal, mankind would be wanderers upon the globe, depending with each other for the spoil of animals; and the wild fruits of the earth.

They would know neither society nor country. By multiplying the means of subsistence, agriculture enables the inhabitants of the earth to unite and lend each other mutual assistance. Some cultivate the earth and force it to produce its fruits. Others cultivate the arts, which furnish to Society the products of which they stand in need. By these exchanges and regular communication are created commerce and civilization.

Without detracting from the merit of other professions, or wishing to undervalue their influence on the public weal, it may be said with perfect propriety, that agriculture is the remote, if not the primary source from which the whole wealth of the nation, immediately or indirectly flows. The province of the mechanic is to take the raw material furnished to his hand, and to so alter and modify the form as to render it better fitted for the use of man. The business of the farmer is to create these materials—to extend the magic wand of enterprise and skill over the face of the earth, and to summon into being, fresh from the bosom of nature, all those choice fruits and rich blessings which supply the wants and minister to the comfort of the human race.

But still we would not recommend agriculture to you solely on the ground of its public utility. "We would offer it to your more private consideration as an agreeable and profitable pursuit. To the votary of science—to the man of deep-toned moral feeling and sentiment—to the friend of steady habits and honest practical virtue, and to the lover of domestic ease and comfort, agriculture renders its attractions." It has been remarked by an author, that husbandry has been unjustly regarded as a dull, plodding and laborious occupation, requiring for its successful prosecution nothing more than sound health and vigorous limb and animal activity. We present it to you as an extensive field for scientific investigation. Nature works by certain and unchangeable laws. The growth of a plant—its lastidious selection of a genial soil—the manner in which it derives nutriment from the air through the medium of its leaves, or from the earth by the agency of its roots—the multitude of changes which it undergoes from its embryo state to its maturity, not only furnish subjects of curious research and ingenious speculations, but if properly examined, evince that there is some principle in the matter—some universal law by which these various phenomena are produced and regulated. In the discovery of this law, and the forms in which it operates, consists the science of agriculture. A firm and unwavering friend to his country, has said, in commending it, "in addition to the advantages and enjoyments which this pursuit affords, as it regards, individual comfort and national wealth, it is well calculated to excite the most endearing affection for the country which we inhabit."

"The farmer, born and reared in the bosom of the earth and nourished by its bounty—deriving from its cultivation all the comforts which make life desirable, and all the luxuries which enhance its enjoyments—feels for the soil a sort of filial attachment—looks upon it as his own rightful peculiar inheritance, and holds himself especially bound to defend it with his blood and with his treasure. It is the yeoman, whose frame is fashioned for the labors of husbandry, and invigorated by his habitual endurance, who in the hour of crisis can raise, in his country's defence the most audacious and efficient arm."

To this we may be allowed to add, that he is, emphatically, the bulwark of the nation—the strong pillar on which rests all its greatness and all its glory.

Ill fares the land,—to threatening bills a prey
Where wealth accumulates, but where men decay,
Princes and lords may flourish or may fade,
A breath may make them, as a breath has made;
But a bold Yeomanry—their country's pride,
When once subdued can never be supplied.

GOLDSMITH.

This, you will agree with me in saying, is both beautiful poetry and beautiful truth.

"The American farmer, (says another writer on the subject,) is the exclusive, absolute, uncontrolled proprietor of the soil. His tenure is not from government—the government derives its power from him. There is above him nothing but God and the laws; no hereditary authority usurping the distinction of personal genius. His frugal government neither desires nor dares to oppress the soil, and the altars of religion are supported by the voluntary offerings of sincere piety. His pursuits, which no perversion can render injurious to any, are directed to the common benefit of all. In multiplying the bounties of Providence, in the improvement and embellishment of the soil—in the care of the inferior animals committed to his charge, he will find an ever varying and interesting employment, dignified by the union of liberal studies, and enlivened by the exercise of a simple and generous hospitality. His character assumes a loftier interest by its influence over the public liberty."

We would that the farmer and the mechanic, and the artisan, should be as learned, as well as read, and as familiar with the principles of philosophy, as the physician, or the lawyer. We do not mean that they should be as well versed in the particular professions, as each of these, but that they should be versed in *general principles*,—in the application of the laws deduced therefrom to the practical duties of their several stations in life. Nothing more is necessary than a desire to do it. The avenues of knowledge in this country are open to all. Books can be had in abundance—instruction lies in your daily path—and all that is wanting is to keep the eyes open and the mind active. Improve the mind and you elevate yourselves—elevate yourselves and you take an equal rank with those of the same grade, and you have an equal command or influence as those who perhaps rule you. A most pernicious opinion has been heretofore prevalent in regard to the knowledge requisite for a farmer or mechanic. Indeed we have heard some gravely argue that the less *learned*, especially *book learned*, he had, the better off he was, because he would be more contented, and less aspiring.

Aspiring, forsooth! As if, because a man holds a plough, or pushes a fore plane, or swings a sledge, he should be an ignorant donkey all his days!

This is sheer nonsense. There is no pursuit

which can expand the mind more than Agriculture or Mechanical Arts. They are the very demonstrations of science, in every particular. The practical operator in either of these grand divisions of labor, can not make a single movement in his occupation, without putting into practice and illustration, some one of the laws of mechanical or chemical philosophy. Why should he not then understand what he is about? Why should he not be able to look as far into the mysteries of the natural world, as any other man? Nay, why should he not be a pioneer, and lead others, instead of being an humble follower, treading with faltering and doubtful footsteps, far in the rear of a professional man? Who is to blame for his not being first and foremost?

Who is to blame if the non-producers take the lead, and by storing up their minds with knowledge, which is power, rule and govern, and dictate to the producer? Who but the producer himself, who has suffered his talent to lie unimproved, his intellect unenlightened, and his mind to be undisciplined in the very things so essential to his happiness and well being?

Mr. President, I had intended to have made some remarks on the different kinds of influences that should be brought to bear upon us, for the purpose of promoting agriculture. Time admonishes me that I ought to trespass on your patience no longer; but there is one influence that I cannot but hope you will call to your aid,—there is one influence, so beautiful and quiet in its nature, and yet so powerful in its operation, that without it agriculture cannot flourish—without which, society would go back to the barbarian institutions common in the primitive ages. It is the power which woman has upon society. I grieve to say that there seems to be some symptoms, that the daughters are inclined, in too many instances, to depart from following in the footsteps of their industrious mothers, and too often seem to say that it is vastly vulgar to be seen with a milk pail, or found at work by the cheese press, or at the spinning wheel. The term *lady* is getting to be synonymous with *dandy*, and her pretensions to the title, to be graduated by the amount of finery that can be displayed upon the body and the depth of ignorance of domestic affairs. Now I am not one of those *sourknotters* who would have a young lady know nothing but kitchen economy, to the exclusion of every thing that approaches refinement; and on the other hand, I am not one of those *exquisites*, who would curl the lip of scorn when I met with one who wore a homespun garb, and whose range of thought was circumscribed by the horizon of domestic duties and qualifications. No, ladies, I would enlarge the sphere of both. If the Almighty has given you a talent for music, or for poetry, or for drawing, or painting, or if you have the capacity of contributing to the literature of the day, or have a taste for investigating scientific subjects,—cultivate it—cultivate it by all means. Don't wrap your talent, or talents in a napkin and bury it up. Make it productive to

you, either in some profitable or innocent enjoyment.

But remember these are the ornaments of life, rather than the substantial, and if you neglect the latter, the former are based upon nothing. What would you think of that architect who should lay out all his strength and his means upon the mere ornaments of his structure, and neglect the foundation—who should combine all the elegance of style and the beauty of proportion, and forget to lay deep and strong the homely, but solid stone work and masonry for his temple to rest upon? So it is with that *individaal* who neglects making herself acquainted with the practice—the matter of fact practice of domestic affairs. I am willing that the farmer's daughter, if she have the means to do it, should play upon the piano or the guitar—that she should read poetry and make herself as polished and as refined as the graces themselves. But I beg her to remember that this is but the mere sparkling of the diamond—while the *substance*, the real worth of the gem, is in the solid matter of domestic knowledge, and that no young lady's education is finished, however accomplished she may be, until she can *darn a stocking, milk a cow, and make a cheese*.

We should cherish and encourage all kinds of household—or, as it may appropriately be called, fireside manufactures. It is from these little, silent and humble rills of industry, that much, indeed, we may say, nearly all of the great tide of our national prosperity flows, contributing as it does by little and little, but by ceaseless additions, to the swelling the great whole, as the dew-drop contributes to the ocean.

Mr. Linnar, a writer on political economy, in *Uurt's Magazine*, maintains that the best, and in fact the only mode in which we can save to ourselves the vast sums which are annually paid out for foreign importations, and found the fabric of our wealth upon an independent and solid basis, is to increase the *domestic* productions of the country; by this we mean, not only those things made by our wives and daughters around the family hearth, but whatever may be wrought by machinery of our own construction and within our own borders.

It is only by directing the enterprise of our own people to the right channels of productive industry, and by cherishing this enterprise by politic and enlightened legislation, that we can become in fact, as we are now in name, an independent nation, and compete with England, the greatest manufacturing nation in Europe, in the markets of the world.

There is no formidable object in the way—there is no lion, unless it be the British Lion, in our path—there is in fact nothing but ourselves to prevent this result. We have the soil—we have the climate—we have the resources of navigation—we have the water-power and machinery—we have the mechanical skill—we have the freedom and the physical vigor.

In our own country the four great branches of

national enterprise, viz :—commerce, agriculture, manufactures and several arts, may each be directed to the aid of the other, and to one great end.

They are twin-sisters, with golden tresses falling upon fair countenances and with bosoms swelling with the exultations of hope—bearing the olive branch and the horn of plenty—linked hand in hand by the bonds of affection.

Like another Ariel, they will watch over the destinies of the republic. They will enrobe the fields of our wide spread country with rich harvests. They will hurry the operations of the water-wheel, and the spindle, and the shuttle, and bring the blessings of independence to every man's door.

They will fill our ware-houses with the produce of our own skill.—They will induce an interchange of the productions of our different States, and thus strengthen the bonds of our Union.—They will whiten our inland seas and rivers with commerce—checker the country with railroads—send forward our ships and steamboats upon the ocean, freighted with the products of our own industry, and make us the first, as we are now after a lapse of only two centuries, the second commercial power in the world.

Proceedings of the Home District Agricultural Society.

In consequence of not being in possession of the following resolutions for the December number of the *Cultivator*, their publication has been unavoidably delayed. It will be seen that a committee has been appointed to submit a scheme for the establishment of a Board of Agriculture, and a National Agricultural Society for the Province of Canada, which is to be laid before the Home District Agricultural Society at their Annual Meeting, to be held in the Court House, Toronto, on the second Wednesday of February next, at the hour of twelve o'clock noon. As matters of vast importance to the agricultural interests of Canada will be discussed and otherwise brought before the notice of the meeting, it was deemed necessary to consult the views of the several Agricultural Societies in the Province, respecting the method of constituting a Provincial Agricultural Society and Board of Agriculture. It is desirable that as many societies as possible should be represented at the February Meeting, so that the machinery for those great national institutions may appear complete, when laid before Parliament for its approval. We therefore hope that not only the members of the Home District Agricultural Society will be at their post on the second Wednesday of February next, but also that an efficient delegate will be present

from each of the Districts of Canada, who will be prepared to submit their views upon the great questions for which the meeting has been principally called.

Resolutions passed at the November Meeting of the Home District Agricultural Society.

1. *Resolved*—That Messrs. Farewell, Empey, and Gould, be a committee to examine and audit the Treasurer's accounts for the current year, and report at the Annual Meeting in February next.

2. *Resolved*—That Messrs. Edmundson, Jarvis, and Colonel Thompson, be a Committee to revise and report an amended constitution at the Annual Meeting.

3. *Resolved*—That Messrs. Wells, Perry, E. W. Thompson, Edmundson, and the President, be a Committee to draft and report at the next Annual Meeting of the Society, an Address to the Legislature, praying for an act of appropriation for a Provincial Agricultural Society, and to submit a Prospectus for such Society, and also to pray the Council of King's College to found and endow a Professorship of Agriculture in that Institution; and that the Committee shall have power also to report a scheme to be recommended to the Legislature, by an Address, for the establishment of a Board of Agriculture in the Province of Canada.

4. *Resolved*—That the Editor of the *British American Cultivator* be requested to give publicity to this day's proceedings, accompanying the same with an invitation to other Agricultural Societies to co-operate with this Society, by sending delegates to the Annual Meeting to be holden on the second Wednesday in February next, or by communicating their views in writing to the President, W. B. Jarvis, Esq.

Science with Practice.

Every farmer should adopt for his motto, "knowledge with labor," or, "science with practice." Knowledge without labor, and labor without, knowledge are alike nearly worthless. But knowledge with labor, or science with practice, gives to the honest cultivator of the earth, the best possible chance to acquire both wealth and distinction as a successful agriculturist.

Suppose a farmer wishes to sow land enough this fall to yield him at the least possible expense, 500 bushels of good wheat, free alike from *rust*, *smut*, and *chess*—what knowledge does he need to accomplish this object? Will any experienced farmer say, that to produce this amount of grain at the least cost in the land and labor, no knowledge of the mineral constituents of his soil, of vegetable mould and muck, of an excess of moisture in the surface, or subsoil—no knowledge of the substances that nature *must* have to form

a perfect wheat plant, and the condition in which those substances should be placed, is useful to the wheat-grower?

It is a sad sight to view forty acres of wheat all blackened and shrunk with rust, involving a loss of several hundred dollars, because the owner despised a knowledge of those simple laws of nature, which produce this parasite plant on the stems, leaves and heads of his wheat. It is painful to witness the toiling husbandman, harvesting fifteen bushels per acre, where the amount of seed sown, the thorough tillage, and the hard work performed, would by the aid of a little more knowledge of the nature and properties of wheat, have given him 30 bushels per acre. Thousands of farmers will reap this season an average of 30 bushels of corn on land that might grow seventy quite as well, with an equal amount of labour, if scientifically applied.

Too many farmers unwittingly prepare their wheat crop just right to be stricken, as it is termed, with rust. They fail to drain their wheat fields most thoroughly, and thereby induce the growth of sickly, imperfect wheat plants, which fall an easy prey to parasites. They place their seed in soils that contain too much vegetable mould, and too little of the alkalies, potash and soda, too little of the alkaline earths, lime and magnesia: and too little phosphorus, sulphur and chlorine. The young wheat plant finds its nourishment as a lamb would find his, provided you give it a gill of its mother's milk a day, diluted in a pint of bad water.

There is but little study, little knowledge, and no science, brought to bear on the feeding and raising of wheat plants in the state of New-York, which makes twelve millions of bushels of grain. The habits of this head-bearing plant, and what it needs to form a firm, bright, glassy, stem, which *Uredo-rust*, cannot grow upon; and what it needs to develop a long ear, well filled with plump kernels, are matters that pertain to wheat culture, most sadly overlooked by those that toil too much with their hands, and exercise too little those noble faculties of reason and common sense, which God has given them.]

Every rational being that happens to have a mouth to feed, should study the science of transforming earth, air, and water, into good, light wheat bread. It is hardly possible that this knowledge will be utterly valueless to any one

during the whole period of his existence, whatever his pursuit in life.

As a general rule, it is cheaper to grow 30 bushels of wheat on one acre than on two, provided the use of the land was given to the cultivator. On an acre of well drained, well pulverised soil sown in wheat, scatter broadcast with a shov-el, ten bushels of uncleaned ashes, five of lime—(ten will be better if not too expensive) two and a half of gypsum and an equal quantity of common salt. If possible, the ground should be entirely free from the seeds of the weeds, that nothing but clean wheat plants may grow. The above compounds will serve to make bright flinty straw, so little subject, as every observing man knows, to be attacked by rust. Deep ploughing, thorough harrowing and early sowing, constitute prominent features in the practice of those wheat growers, whom the editor has lately visited, because of their noble success in this branch of husbandry. In Scipio and the adjoining towns in Cayuga county, the good effects of underdraining wheat fields, have been most signal this season. During the last four weeks we have collected many interesting facts relating to rust, smut, &c., in connection with shale, sand stone, clayey and muck soils. These will be embodied in our official report to the New York State Agricultural Society.

Any gentleman that has made, or shall make any discoveries relating to insects injurious to wheat, potatoes, apple, pear or peach trees, relating to the *blight* which is now injuring, if not destroying so many quince trees as others, will confer an especial favor by communicating an account of the same to the Corresponding Secretary of the State Society, for publication in the current volume of its transactions, or to be made public through some other medium.

The study of entomology—the science of insects, is becoming every year more and more important to the practical farmers of this State. The popular work of Harris should be in the family library of every cultivator of the soil. Let every young man who reads this article begin at once the systematic study of his noble profession, if he designs to be a skilful and successful farmer. Let him unite knowledge with labor—science with practice,—and the great fountain of all knowledge will reward him a thousand fold for his well directed efforts.—*Genesee Far.*

Electricity and Agriculture.

We have been kindly furnished with the accompanied paper, upon the very intricate and, we apprehend, fallacious subject of the benefits of artificial electricity, when applied to the growth of plants; the writer of which is a student in Victoria College, and a son of a wealthy farmer in the Talbot District.

After what we stated in the article which our youthful, though talented correspondent has alluded to, it is scarcely necessary for us to say that we have no confidence in the specious theory upon which his letter mainly treats. We have from the first looked upon it only in the light of a humbug; and the following facts, which we copy from the London *Agricultural Gazette*, clearly corroborate the truth of the opinion, which we by no means prematurely formed:

To the Editor of the *B. A. Cultivator*.

VICTORIA COLLEGE,
COROURG, Oct. 28th, 1845.

SIR,—In accordance with a remark made in your last paper, under the head of "Answers to a Series of Questions," stating, that "if we fail in answering these enquiries to the satisfaction of any of our readers, we shall consider it a favour to have any additional remarks submitted to us, that would better illustrate those subjects," I take the liberty of submitting a few suggestions, elicited by your answer upon the subject of Electricity. You state, that a "number of experiments have been made in the United States, but with little or no success;" and farther, that "it is highly improbable that any great advantage can be gained by employing artificial electricity to agriculture."

I take exception especially to your last remark, because it may prevent some persons, well inclined, from experimenting with an agent, which, if properly applied, may in my humble opinion, be productive of very great advantage to agriculture.

To have any thing like proper ideas upon the action of any agent, we should as far as practicable make ourselves acquainted with its character; to properly judge of its effects, we must know what those effects are. Among the elements, with which by the progress of the natural sciences and chemistry, we have become more or less acquainted, electricity is known to sustain a most important position. With light and caloric,

it is classed as an imponderable agent—for any thing known to the contrary at present, may pervade all space, is developed in immeasurable quantities by very many of the operations of nature, as in the evaporation of water constantly taking place over the whole surface of the globe—in the respiration of animals—in the growth of plants—in all the varied processes of combustion, and what is especially to our present purpose, exerts a most important influence in all the multifarious compositions, decompositions, changes and re-actions constantly taking place among the ponderable elements of which all bodies are constituted. All are more or less modified by the presence of this agent. Some, indeed, of "honourable name," strenuously contend, that it is the "primum mobile" of the whole, and that all the remarkable affinities, attractions and repulsions, which exist among these elements, are solely owing to their electrical conditions. Witness the mysterious, the strangely powerful fluid, issuing from the poles of a galvanic battery, developed by the chemical action of a saline solution upon two different metals, under the intense caloric influence, of which the hardest substances in nature become as wax.

But how, it will of course be asked, can this agent become instrumental in the production and growth of plants, grains, vegetables, &c., &c. To understand this, we must know a little about the composition of soils, the constituents of plants and vegetables, the nature of their food or nutriment, whence derived, how applied, &c., &c. Without pretending to go into an elucidation of all these points we may briefly remark, that all ponderable bodies are composed of about fifty-five simple elements, that less than a dozen of these constitute all known varieties of soils, as for instance, aluminum and oxygen combined, form the basis of all clay soils, silica of sandy soils; these together, loamy soils, either or both of these with a large admixture of lime, form calcareous soils. Farther, about eighteen of the fifty-five elements have been found in the various vegetable productions of the earth; the great bulk of the whole, however, is known to be composed of but four of them, as oxygen, hydrogen, nitrogen, and carbon. Of the others, some three or four, form small, but necessary portions of their constituents; and of the rest, their presence necessarily seems to be problematical. Pure soils, then, either of clay or silica, will not pro-

duce crops of any kind. Simply because they contain only one or two of the elements of which plants are composed. They require to contain a large admixture of vegetable matter, which, in combination with the soils, will yield these elements as food for vegetable growth; and from this has arisen the practice in farming, of manuring lands. Hence, when we read of the "virgin soil," yielding its "teeming fruits," if to be taken literally, we must regard as poetic fancy. For soils which are good, and which so yield their "teeming fruits," are, in almost every instance, heterogeneous compounds of decayed and decaying vegetable matter, in combination with the virgin soil. Now, when we add manure to land, it is not that it shall remain as when added; but that it shall undergo the process of "rotting," or decomposition. The whole of this process then, be it understood, is a series of chemical operations, by which the vegetable matter is changed into a great variety of products, all remotely or intimately ministering to the growth of crops, occupying, or to occupy the ground.

Chemical investigations, especially chemical analysis, prove to us that in these operations, there are produced a variety of acids, as carbonic, nitric, humic, delmic, &c., which meeting with alkalis, produced by the same as ammonia, or already existing in the soil, gradually yield, in a soluble state, the elements of which all plants are composed.

Bear in mind, then, that these operations are all of a chemical nature; also, that it has been stated, that electricity is a *most important agent* in all such operations, and then we shall perhaps begin to perceive, that there *may* be no small advantage in applying "artificial electricity to agriculture." Electricity being an *imponderable* agent, cannot of itself supply one particle to the ponderable matter of plants, and yet by the influence which it has upon the chemical changes constantly going on in the soil, it may, and assuredly does, very materially add to them. Careful observations by scientific agriculturists satisfactorily demonstrate, that "plants grow most rapidly in thunder weather." Of course, the more rapid the changes we have hinted at take place, the greater will be the supply of food for the plants, and the more vigorous their growth, so that any means we may employ to keep up, increase, and continue the action of this agent, is just so much added to the producing power of our fields.

Now, as to the experiments made in the United States, having been attended "with little or no success," I should pay "little or no" attention to, except assured of all the circumstances attending them. The experimenters may not have been sufficiently acquainted with the nature of the agent they wished to employ, or with the precautions necessary in employing it. Every person practically conversant with galvanic experiments knows, how necessary it is that the conductors and communications shall be in the most perfect condition; and this may not have been attended to.

As already noted, electricity does not of itself supply the food of plants, it is but the all-pervading agent in the preparation of that food. This may have been totally misunderstood. If the experimenters were men well versed in chemical science, of course these remarks do not apply to them, and some other cause of failure must be sought; otherwise, they have full force.

In the accounts given of such experiments in our periodicals, during the last spring and summer, I observed the statements were made in such a manner as to convey the idea, that all that was requisite to ensure the increased product, was a full and constant supply of the electric fluid. No intimation was given in any one instance that came under my observation, that there should be the same, or even an increased supply of manure to the land, and hence some experimenters may have considered, that the setting of the poles, the laying of the wires, &c., was a pleasing and very profitable substitute for all the ordinary labour and expense of supplying their fields with the product of the barn-yard. In the celebrated barley case, we had no statement given us of the nature of the land, or of its preparation for the crop, but I venture little in affirming, that it *must have* contained the peculiar elements necessary for the production of that crop, and which were *forced* to yield the increased produce, by the stimulus afforded them by this agent.

I trust that in the foregoing remarks, I have made it sufficiently obvious that dependance upon electricity alone, must result in disappointment to the experimenter; and also, that I have said enough to induce you to withdraw the opinion put forth in the article under consideration.

Everything in any way calculated to advance the interests of the agricultural community should be encouraged. It is the professed object of your

journal to do so, and to lead the public mind in such pursuits. Experiments upon the utility of employing this agent *may be* productive of great benefit, and especially all such as can be made with so very little expenditure of time or money, should, by all rational means, be encouraged.

Before leaving the subject, I would observe, that there is another circumstance connected with the success of experiments upon electricity, which might give rise to objections to its beneficial use. It might occur that an experiment of the kind would succeed admirably a first year, producing a very great increase in the yield of the land, and yet continued a second and third year, have no such effect. In such case it would perhaps at once be urged, that it can be of permanent benefit, because "*it so speedily exhausts the land.*" Now, this very fact properly viewed, might be advanced as one of the strongest possible arguments for its employment; for, in the first year, it must have found an abundance of the elements for the food of plants present in the soil, and stimulating them to increased activity in their affinities and combinations, caused the increased produce. The second year it *does not* take place, *because those elements were used up*, the whole of the food had been consumed; *but it would have taken place*, had a sufficiency of manure, of decomposing vegetable matter, been added to the land, to supply those elements, as the increased demand required.

In conclusion, lest I be tedious, I would in justification observe, that in the preceding remarks, I have been able only to hint, it may be very obscurely, at many important principles which it would be impossible to elucidate in one article—it would require a volume to do so. I trust, however, that what has been offered, may prove of benefit, by inducing the belief, that artificial electricity may be profitably employed in agriculture when used in conjunction with the indispensable accessories.

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“I have been looking for your publication of the accompanying letter for the last few weeks; but, as it has not appeared, I infer that you have not seen it. The ‘additional pickle dung’ explains part of the astonishing results of Mr. Forster’s experiments, as if the threshing and weighing of his crop were conducted with equal care or good faith, we may form an idea of the mode in which 13½ quarters of barley per acre were raised. I am not aware that Dr. Forster has

replied to Mr. Cowie’s letter, but the ‘additional pickle dung’ was either applied by his orders, or it was not. In the former case, remark is superfluous, and in the latter Dr. Forster is almost equally culpable, as a person who takes it upon himself to set at nought all that has been ascertained, during the last century and a half, of the laws which regulate the distribution of electricity, and to induce farmers to spend money upon the faith of his representations, ought to have personally superintended the preparations for his experiments, so that no mistake of the kind could occur.—F. G. G. The following are extracts from the letter alluded to. It appears in the *Caledonian Mercury*, August 7th. ‘I have been induced to send you this communication, on account of my having a few days ago visited the northern countries, where I had an opportunity of seeing and examining into the *modus operandi* and results of Dr. Forster’s experiments. I was accompanied on the occasion by two practical farmers. We drove our vehicle to the stables of Findrassie, where we intended to put up our horse for a short time. While I was engaged in searching for Dr. Forster, who, however, had left home, my friends got into conversation with a very communicative lad, a servant on the farm, respecting the experiments on electricity. The lad seemed rather astonished that we had come to see what was thought nothing of in the neighborhood. On being asked if the crops were better where the poles and wires were placed than on the rest of the field, he answered—‘Weel the the crap sud be better, considering the additional pickle dung it got beside the wires, but that he could not say there was really any difference observable.’ After this expose our expectations were very moderate, but we determined to have ocular demonstration on the subject, notwithstanding the absence and want of permission of the lord of the manor, whose public announcements have, however, laid that portion of his grounds under experiment, in some measure, open to public exhibition. The poles and wires were placed in two very small fields, one of which is in pasture, and the other is a crop of barley. The first had not a living animal upon it, and humane and considerate it certainly was, for the total want of anything in the shape of grass beyond the roots would have starved any hill ewe—nibble she never so eagerly. The devoted field, instead of being electrified, seems to be paralysed, and will

to all appearance require some more 'pickles of additional dung' to revive its sensibilities after the shock it has sustained. Then, as to the barley, 'it seems neither to have suffered nor been ameliorated by the magic wires, for no perceptible difference can be seen over the field. The crop, what with electricity, the 'pickle additional dung,' and all, looks at less than four quarters per acre.'—*James Cowie, Haulkerton Mains.*

Quite a number of original articles have been unavoidably postponed for the February number, among which were three highly interesting farm reports.

Owing to the absence of Mrs. Low the wood-engraver, from town, we are unable to have any wood engravings prepared for this and the February number. The other numbers of this volume will be embellished with a variety of beautifully executed engravings.

Guano in the St. Lawrence.

Feeling, as I do, the most sincere gratification an everything which may conduce to the benefit of the agricultural interest in England, as well as in my own country, I have great pleasure in communicating a piece of information, which I received not long since from a gentleman from New York, of the highest respectability. An enterprising young man, in passing up the Gulf of St. Lawrence, discovered an island greatly frequented by sea-fowl, and upon it a large deposit of their excrements. He made provision to return, and then visited the neighboring shore on the main-land, which was very much frequented by countless multitudes of the sea-fowl, but very difficult of approach, on account of the rocky character of the coast and the breakers in the neighborhood. Upon getting access to it, however, he discovered an immense amount, and what he terms an inexhaustible supply, of guano. He brought home a considerable cargo for the vessel in which he sailed; but, from distrust of its character, or the common tricks of trade, the price offered for it in New York was so low that he refused to dispose of it. Some of it, however, was purchased by a friend of the gentleman who gave me the information, and this friend is well known to me as a man of high character; and he applied it side by side on the same plot of ground with the Peruvian and Ichaboe guano. The gentleman who gave me this information,

and whose name and address I shall be happy to give you, assures me that he saw the crops growing to which this guano from the St. Lawrence was applied, and the beneficial effect of this guano was decidedly superior to that either of the Peruvian or Ichaboe. He gave me this information some months since, and then went to Paris. Sensible of the great importance of authenticity in such a case as this, I waited his return, and having seen him again, he confirms his former statement in the most explicit manner. Having none, and never intending to have any personal interest in any trading or mercantile speculation whatever, I have no hesitation in giving this information to the public, which, if well founded, must be of immense moment to British agriculture. I can only say that the gentleman who gave me this intelligence, from his long-established character and connexions, is, in my opinion, incapable of making any intentional misstatement; and the gentleman to whom he refers as having made the experiment, the progress of which he witnessed, stands equally high. I know very well the general impression of the efficacy of guano, as found in tropical climates, is attributable to the absence of rain in those countries. Professor Liebig, in his recent address to the agriculturists of Great Britain, says that 'It is known that the collection and preservation of the excrements on the African Islands and the coasts of Peru and Chili depend upon the scarcity of rain in those countries. The best sorts of guano contain in fact, more than one-half of their weight of soluble salts, which if exposed to the rain are in exactly the same condition as, under similar conditions, a heap of salt.' This may be so, and undoubtedly much of this manure must be washed away by the rain; for the tropical regions are not without their rainy season, when the rain comes down in torrents, of which we in temperate latitudes have little conception. But in the cold climate of Lower Canada, and in the northern seas frequented by these-fowl, these deposits must for several months in the year be locked up by an inexorable frost and banks of snow and ice, which may equally serve the purpose of a secure protection against waste. At any rate, in this case, the fact is all that is of importance; and that being determined, we can then at our leisure adapt the theory to the occasion.—*Henry Colman, 56, Charing-cross, London, Sept. 24, 1845; in the Mark Lane Express.*

Ladies' Department.

In order that the *Cultivator* might be appreciated by the Farmers' Wives and Daughters, we shall devote two or three pages in each number, in accordance with a previous announcement, to subjects which must prove particularly interesting and valuable to the fair portion of our readers.

The information that will appear in this department of our journal, will abound with useful advice, and practical hints upon domestic economy. In our occasional rambles among the farmers, many striking instances of industry and real merit performed by the ladies, will no doubt be presented to view, of which we shall not fail in taking notes, to store this department with original matter, that will be adapted to the tastes of our numerous female readers. To secure the patronage of the farmers' wives and daughters in Canada, (who are on all hands acknowledged to be the most influential portion of the community,) we shall, in each number, consult Miss Leslie's "Complete Cookery Book;" and also the various other works published in the English language upon this and similar subjects, from which we shall make such extracts as will be in keeping with this new feature of our work.

Hundreds of ladies who will unquestionably feel a pride in perusing their own department of the *Cultivator*, are abundantly intelligent and able to render us valuable assistance, in contributing from their rich treasures of knowledge; and we trust that none will withhold their influence and aid, when such a favourable opportunity is presented to their notice for doing good. Any communication that we deem worth a place in the Ladies' Department, will be published, although the author's signature may not be affixed, provided that the editor is furnished with the writer's address.

The articles under this head will obviously have to be as concise as possible; but, notwithstanding, we flatter ourselves that all who carefully read them, will have received more value than twice the annual subscription price of the whole work.

The following advice to Mothers, is worth being printed in letters of gold, and well deserves to be placed in the hands of every female who has the charge of rearing and educating the youths of our land:

FOR WHAT IS A MOTHER RESPONSIBLE?—A mother is usually also a wife, and has the management of a family, and a direct influence over those within her appropriate sphere. She, in subordination of course to her head, has the seat of authority and wields the sceptre of government. From a position of entire dependance she has risen to power and rank; and though her throne may be in a cottage, and her dominion the little world of household affairs, yet is she not the less really responsible, than is that youthful queen, who now sways a sceptre over the four quarters of the earth. But for what is she responsible?

She is responsible for the nursing and rearing of her progeny; for their physical constitution and growth; their exercise and proper sustenance in early life. A child left to grow up deformed, bloated, or meagre, is an object of maternal negligence.

She is responsible for the child's habits; including cleanliness, order, conversation, eating, sleeping, manners, and general propriety of behaviour. A child deficient or untaught in these particulars, will prove a living monument of parental disregard; because generally speaking, a mother can, if she will, greatly control children in these matters.

She is responsible for their department. She can make them fearful and cringing; she can make them modest or impertinent; ingenious or deceitful; mean or manly; clownish or polite. The germ of all these things is in childhood, and a mother can repress or bring them forth.

She is responsible for the principles which her children entertain in early life. For her it is to say whether those who go forth from her fireside shall be imbued with sentiments of virtue, truth, honour, honesty, temperance, industry, benevolence, and morality, or those of a contrary character—vice, fraud, drunkenness, idleness, covetousness. These last will be found to be of the most natural growth; but on her is devolved the daily, hourly task of weeding her little garden—of eradicating those odious productions, and planting the human heart with the lily, and the rose, and the amaranth, that fadeless flower, emblem of Truth.

She is to a very considerable extent responsible for the temper and disposition of her children. Constitutionally they may be violent, irritable, or revengeful; but for the regulation or correction of these passions a mother is responsible.

She is responsible for the intellectual acquirements of her children, that is, she is bound to do what she can for this subject. Schools, academies, and colleges open their portals throughout our land; and every mother is under heavy responsibilities to see that her sons and daughters have all the benefits which these afford, and which their circumstances will permit them to enjoy.

She is responsible for their religious education. The beginning of all wisdom is the fear of God; and this every mother *must teach*. Reverence for God, acquaintance with His Word, respect for the duties and ordinances of religion, are within the ability of every parent to implant; and if children grow up ignorant or regardless of the Bible and the Saviour, what mother, when she considers the wickedness of the human heart, can expect them to rise up and call her blessed? —*Mother's Journal*.

The following receipts are taken from *Miss Leslie's Complete Cookery*, a book which contains upwards of 500 pages, and is, by competent judges, considered the best American work of the kind extant:

Pork Cheese.—Take the heads, tongues, and feet of young fresh pork, or any other pieces that are convenient. Having removed the skin, boil them till all the meat is quite tender, and can be easily stripped from the bones. Then chop it small, and season it with salt and black pepper to your taste, and if you choose, some beaten cloves. Add sage leaves and sweet marjoram, mixed fine, or rubbed to powder. Mix the whole very well together with your hands. Put it into very deep pans, with straight sides, (the shape of a cheese,) press it down hard and closely with a plate that will fit the pan; putting the under side of the plate next to the meat, and placing a heavy weight on it. In two or three days it will be fit for use, and you may turn it out of the pan. Send it to table cut in slices, and use mustard and vinegar with it. It is generally eaten at supper or breakfast.

Common Sausage-meat.—Having cleared it from the skin, sinews, and gristle, take six pounds of the lean of young fresh pork, and three pounds of the fat, and mince it all as fine as possible. Take some dried sage, pick off the leaves and rub them to powder, allowing three tea-spoonsful to each pound of meat. Having mixed the fat and lean well together, and seasoned it with six

tea-spoonsful of pepper, and the same quantity of salt, strew on the powdered sage, and mix the whole well with your hands. Put it away in a stone jar, packing it down hard; and keep it closely covered. When you wish to use the sausage-meat, make it into flat cakes; dredge them with flour, and fry them in butter or dripping over rather a slow fire, till they are well browned on both sides, and thoroughly done.

Pork and Beans.—Allow two pounds of pickled pork to one quart of dried beans. If the meat is very salt, put it in soak over night. Put the beans into a pot with cold water, and let them hang all night over the embers of the fire, or set them in the chimney corner, that they may warm as well as soak. Early in the morning rinse them through a cullender. Score the rind of the pork (which should not be a very fat piece), and put the meat into a clean pot with the beans, which must be seasoned with pepper. Let them boil slowly together for about two hours, and carefully remove all the scum and fat that rises to the top. Then take them out, lay the pork in a tin pan, and cover the meat with the beans, adding a very little water. Put it into an oven, and bake it four hours. It is customary to bring it to table in the pan in which it is baked.

Bean Soup.—Put two quarts of dried white beans into soak the night before you make the soup, which should be put on as early in the day as possible. Take five pounds of the lean of fresh beef—the coarse pieces will do. Cut them up, and put them into your soup pot with the bones belonging to them (which should be broken to pieces), and a pound of bacon cut very small. If you have the remains of a piece of beef that has been roasted the day before, and so much underdone that the juices remain in it, you may put it into the pot and its bones along with it. Season the meat with pepper and salt, and pour on it six quarts of water. As soon as it boils, take off the scum, and put in the beans, having first drained them, and a head of celery, cut small, or a table-spoonful of pounded celery seed. Boil it slowly till the meat is done to shreds, and the beans all dissolved. Then strain it through a cullender into the tureen, and put into it small squares of toasted bread, with the crust cut off. Some prefer it with the beans boiled soft, but not quite dissolved. In this case, do not strain it; but take out the meat and bones with a fork.

Peas Soup.—Soak two quarts of dried or split peas, over night. In the morning take three pounds of the lean of fresh beef and a pound of bacon or pickled pork. Cut them into pieces, and put them into a large soup pot with the peas (which must first be well drained) and a table spoonful of dried mint rubbed to powder. Add five quarts of water, and boil the soup gently three hours, skimming it well, and then put in four heads of celery cut small, or two table spoonsful of powdered celery-seed. It must be boiled until the seed are entirely dissolved, so as to be no longer distinguishable, and the celery quite soft. Then strain it into a tureen, and serve it up with toasted bread cut in dice. Stir it up immediately before it goes to table, as it is apt to settle, and be thick at the bottom and thin at the top.

Backwoodsman's Department.

If it were possible to take a correct census of those farmers in Western Canada, who may be denominated bush-farmers, we think that it would be found that in point of numbers they are equal to those who cultivate land that is free from stumps. The systems of cultivation which have been published in the *Cultivator*, are only adapted to that class of farmers whose lands have been long under cultivation, and therefore it was not to be expected that the new-land farmers would patronise the work to any great extent. As a very large portion of our time will be occupied in the future editorial management of this journal, it is our intention to give considerable attention to such matters as will be particularly interesting and valuable to those cultivators who are yet engaged in the business of chopping and clearing their land.

That class of farmers who come under the proper application of backwoodsmen, are less disposed to seek for knowledge from books than any other; and were we to publish a whole volume of information upon this branch of Canadian agriculture, which would be altogether unquestionable in its character, it would doubtless be read and sought after by only a few. Entertaining these views, we are not warranted in occupying more than two pages in each number under this head. This would give twenty-four pages to each volume, which we think can be made worth to any new settler much more than

the subscription price of our magazine. It has been frequently told us that our work was only adapted to the old and wealthy farmers,—to cancel those objections it is our intention to furnish in this volume a mass of practical hints for the backwoodsman, so that those of this class who may deem it their interest to remit us our small subscription, will not have it in their power to say that they have not received full value for their money. So far as this new feature of our paper is concerned, we wish it to be distinctly understood that we intend it only as an experiment for this year. Unless the farmers in the new townships manifest a will to patronise the enterprise in which we are engaged, it is useless to occupy space that could be filled with matter more interesting to old farmers. The newest township in the province ought to subscribe for not less than twenty copies of the *Cultivator*, especially as we intend to employ a large space to subjects connected with their interests. When this number is taken, it may only cost each subscriber the price of two pecks of wheat. With the present high price of agricultural produce, the wholesale price of this journal is merely nominal, and it will be strange indeed if any, whether old or new settler, rich, or poor, would deprive himself of the gratification of reading a work like this published in their own country.

On a former occasion we invited such of our subscribers as have had experience in clearing up and managing new-land, to furnish us with their views upon this matter, and we now repeat that invitation, in the hope that much valuable information will be sent us for publication.

Clearing of Land.

The clearing of a bush farm, may be executed in a variety of ways, to suit the circumstance of the case or the taste of the owner of the land. The usual cost of chopping, logging, and tencing an acre of average timbered land is £3 15s.; and it may be fairly stated that where the contractor boards and otherwise finds himself, this amount of labor could not be performed for a less sum. An active chopper will average an acre per week; and by some it may be done in four days, for which the party should be paid £1 5s. and boarded and lodged. Three loggers, a driver, and a yoke of oxen, will log one acre per day, and if the chopping be done in a proper manner, a much greater quantity than this can

be done per diem. If seed of good quality be used, and the ground be sown with wheat as early as the first week of October, the produce in an average of cases will pay the whole cost of harvesting, threshing, taking the crop to market, and also the expense of bringing the land into cultivation. Such a crop would have to yield about 25 bushels, which is below an average from new land wheat, where a reasonable degree of skill is observed in its management. The ashes are worth at least £3 per acre to the individual who has a thorough knowledge of manufacturing potash and the other salts which are extracted from hard-wood ashes. It is usually the case that this branch of business is performed by men that are not practically engaged in the business of chopping and clearing land; but in other cases, the whole operation is carried on under the superintendence of one person. To illustrate the latter case we shall presently mention what we have frequently practiced in a most successful manner in the back or new townships of the country. The great proportion of settlers in those townships are men of small means, many of whom have to suffer innumerable privations for the first few years,—a great amount of which are brought upon themselves through want of good management, or in other words, ignorance; and as a means of lessening this species of human suffering, we have in part been induced to take up our pen to advocate the interests of this too much neglected class. For want of space, we are under the necessity of postponing further remarks upon this branch of the subject. Although the settlers in a new township are principally men of small pecuniary means, still there are quite a number of honorable exceptions to this rule in each. The most striking examples of this kind are those who have sold out their cultivated farms in the old townships, for large sums of money, which they have invested in the purchase of forest land, to which they and their families have removed, for the express purpose of bringing it into a state of cultivation. It is common for men of this class to purchase from 500 to 1000 acres of land, 50 or 60 of which are cleared and cropped annually.

Suppose that 50 acres of new land wheat were sown by such a settler annually, it would give not less than 1200 bushels of wheat; and the ashes, if skillfully converted into salts, would pay the whole costs of clearing the land. When a

large amount of business is performed in this way, the manufacturing of the ashes turns out to be quite as profitable as the crops grown upon the land. By this wholesome mode of clearing up the forests, immense fortunes have been made, and the inducements for engaging in this branch of farming are greater at the present time than they ever were before.

For a person who has had a few year's experience in chopping and clearing, the task does not appear at all irksome; indeed many would prefer this description of labor to any other; but it is highly injudicious for an entire novice to engage in the business without an experienced instructor.

The usual system of clearing land is to chop down all the under growth or small wood, and chop up the down wood into logging lengths in the autumn,—the brush of which is piled in rows through the chopping at a distance of four rods from centre to centre. When this process is performed, the large timber is chopped down in "winrows" as they are termed, which is simply done by felling the trees so that the tops will fall on the centre of the rows of brush which had been made by under-brushing. Where this operation is cleverly done, it will greatly lessen the amount of chopping and expedite the logging.

Some experienced choppers argue that land may be cleared at one half the ordinary expense, by burning and chopping the wood as both at the same time. Many of the settlers in the Eastern Townships practiced this method with great success, and although the snow falls upwards of two feet deep in that portion of the province, it was common a few years since to see prodigious fires in the woods in the middle of winter. This process of chopping is called "whirlpools," the peculiar feature of which consist, of felling the wood so that the tops are thrown in the centre of circle, and the surrounding small timber and brush-wood are piled on whilst the heap is on fire. Where this plan is practiced, much skill is required to ensure success. In our next we shall come more to the point, and be more practical in our remarks, and shall give our readers the pith of the experience which a worthy neighbor of ours had in the clearing up of a new farm, who was once a Canadian pioneer, but is now a wealthy farmer.

Powder to destroy flies.—White arsenic, 1 part; white sugar, 30 parts; rose pink, 1 part. Mix. Mark it poison.

Boys' Department.

It is only candid in us to acknowledge, that we have strong compunctions of conscience for not having written more for the boys. Much of the practical details of agriculture, proves rather tasteless reading to boys, from ten to sixteen years of age; and as those juvenile farmers have duties to perform, to make good citizens, we shall not fail to furnish them with a few columns in each number, of wholesome advice and instruction, which may possibly tend to have an efficacious influence in moulding and preparing their minds for usefulness. It is a common practice in this country, where a farmer has some half-dozen boys, to have some bound out to tradesmen, as their tastes and turn of mind may direct, and others brought up expressly for farmers;—those tradesmen after being in business from ten to fifteen years, by habits of industry and economy are enabled to purchase each a farm, and at the age of thirty-five or forty, give their exclusive attention to the cultivation of the soil. Therefore, in preparing intellectual food for the boys, we shall frequently illustrate the subjects by giving living examples of what may be done by the possessor of a well trained and organized mind, when directed in acquiring wealth by agriculture, and the mechanical pursuits.

This country abounds with instances in which young men of poor and obscure parentage, have acquired almost princely fortunes by close attention to business; and an abundant evidence of this kind has come under our knowledge to warrant us in asserting, that every young man in Canada is in a measure the architect of his own fortune. We have a desire to see the farmers' and mechanics' sons equally as anxious to acquire knowledge as those of any other class; and shall in no small degree endeavour to influence all who may read this magazine, to employ their leisure moments in storing their minds with useful knowledge.

The importance of this colony, in an agricultural and mechanical point of view, is comparatively only budding into being. Her boys and young men will, in the lapse of a few more years, occupy the place of the present owners of the soil; many of whom have suffered many privations and hardships, in making the country what we now see it to be; and it is therefore of the greatest importance that the youths should grow

up intelligent, virtuous, and industrious; and as a means to encourage this state of things, we purpose to tax our time and skill in holding forth inducements, by which the juvenile readers of this journal will be encouraged to persevere in the race of acquiring a description of knowledge which will in an eminent degree fit them to become good citizens.

The cause of education has hitherto been too much neglected in Canada; but the lad who has the inclinations to acquire a good practical education, has a much better opportunity to do so at the present time, than was the case formerly: and those who are not highly favoured in this respect, may educate themselves, if they think proper to do so. Some of the most business men in the province have never been six months to school, and are nevertheless capable of transacting their business, or even legislating for the people, in as creditable a manner as those who have spent half their lives in the school room. As an example of what has been done by a gentleman who, when a boy, was alone, poor and friendless, we would mention a case which was lately reported by our able cotemporary, the *Boston Cultivator*—Samuel Williston, Esquire, formerly a poor New England boy, the star of whose destiny led him to invent a new mode of making buttons, by the means of which he has acquired a splendid fortune, has within the last four years founded an Educational Institution at Easthampton, Mass., in the sum of \$50,000. In this institution there are one hundred and twenty pupils of both sexes, and there are eight teachers, a philosophical apparatus, and a valuable chemical one. Mr. Williston is an illustration in favor of what the learned blacksmith, of Worcester, would style the "dignity of labour;" for he has truly worked to ennoble and educate mankind, making labour dignified, and evincing a pure philanthropy. Besides the endowment at Easthampton, he has given \$20,000 to Amherst College, and annually devotes large sums to the diffusion of knowledge, through schools and seminaries.

We know of no individuals in Canada who have done much for the promotion of education; but here is a case of which our aspiring young men may take a lesson. What has been done in the one country may be done in the other: the will is the only thing that is lacking with us. Our latent talents and energies must be cultivated

and brought into exercise. The resources for acquiring wealth and doing good, are almost endless; and the rising generation, if they do their duty, will not neglect to prepare themselves for the field of usefulness which our almost boundless country presents to view.

In another department of this number, we have given some wholesome directions to mothers: we now counsel the boys to mind their mothers, and if they fail in doing so, they need not expect to be successful in business, as was the button-maker of Massachusetts.

It is to be hoped that none of our juvenile readers will do as did William, George, and Herbert. Children should obey their parents; and if they repeatedly fail in doing so, they are guilty of a crime, which will bring down upon their heads the displeasure of both God and man.

"BOYS, MIND YOUR MOTHER."—Come, boys, here is a story for you, I want you all to come together and listen. I was a boy once, and I recollect a little how boys feel. I am a man now, but I have had about as much to do with boys as I have with men.

I suppose you all have a mother. What I want to tell you now is, how you ought to treat your mother. When I was a boy, no larger than you are, my mother used to tell me that she never knew any one to prosper who did not treat his mother well. She said when she was young she knew several children who did not honor their mothers, and they all came to a bad end.

There were several boys among my acquaintance whom I knew to have disobeyed and ill treated their mothers. I thought I would remember them, and see how they turned out in the world. I should think it was as much as fifteen years ago. I will call these boys William, George, and Herbert. I remember as distinctly as though it were but yesterday. They were my classmates at school. I remember their mothers perfectly well, for many a play afternoon have I spent at their houses.

William was a very pleasant boy and a fine scholar; he made as rapid progress in Latin as any one in school. One afternoon I was at his father's house. We were playing on the green in front of the door. William's mother stepped upon the door stone, and called him. We were busily engaged in play with some other boys, and William took no notice of his mother's call.—After she had spoken several times he stopped a moment to hear what she had to say.

"I want you to go down to the store, and carry this box to your father," said his mother. "But I don't want to go, mother." "Well, you must go." "But I am playing, I can't go." "William, I tell you you must go, for your father must have this immediately."

"Just then one side of the party, who were playing ball, had beaten the other. William heard the merry hurra, and exclaimed, "Well, I won't go, there." He picked up a stick, and throwing it at his mother ran eagerly off to join the victors. I turned just in time to see the stick fall from his mother's dress, and to see how sad she looked as she went into the house.

I never before saw a boy strike his mother, and it made me feel so badly that I could not play.—I told the boys I believed I must go home. I walked away, thinking what my mother had told me. I thought I would always remember William, and see if he prospered. Perhaps it would have been better if William's mother had spoken more kindly to him; but that was no excuse for William. But what I want to tell you is, what became of him. Before he grew up, he was taken very sick, and after many years of great suffering, he died.

The next boy was George. His mother indulged him very much. She used to let him do pretty much as he choose; and any thing he wanted, she was sure to do it for him; but any thing she wanted, he was sure not to do for her. In fact, he seemed to have much less regard for his mother than for an old scholar, who used to be a leader in all our sports. He never minded anything his mother said to him; and she might as well have talked to the currant bushes in the garden as to have asked him to go an errand.

He always acted as if he felt, if he did not say, "I don't care for my mother." Well, George is dead too. He became dissipated, lost his character, and died a miserable death.

Herbert was much like William and George—worse if anything. He not only did not care for what his mother said, but used to ridicule her before the boys. He used to do it, to be sure, in a good humored way; but after all it was a great way off from the respect that was due to his mother. And what do you suppose became of Herbert? His end was more miserable than that of William and George. I shall not tell you exactly what became of him, for it is a more dreadful story than I love to relate. But I can never think

of him without remembering the text, Prov. xxx. 17. "The eye that mocketh at his father, and despiseth to obey his mother, the ravens of the valley shall pick it out, and the young eagles shall eat it."—*Rel. Mag.*

Paragraph for the Heads of Houses.—Mothers! if you would train up your children to be useful members of society, keep them from running about the streets. The great school of vice is the street. There the urchin learns the vulgar oath or the putrid obscenity. For one lesson at the fireside, he has a dozen in the kennel. Thus are scattered the seeds of falsehood, gambling, theft, and violence. Mothers, as you love you own flesh and blood, make your children cling to the hearth-stone. Love home yourself; sink the roots deep among your domestic treasures; set an example in this, as in all things, which your offspring may follow. It is a great error, that children may be left to run wild in every sort of street temptation for several years, and that it will then be time enough to break them in. This horrid mistake makes half our spendthrifts, gamblers, thieves, and drunkards. No man would raise a colt, or an ox on such a principle; no man would suffer the weeds to grow in his garden for any length of time, saying he could not eradicate them at any time. Look at this matter, parents! See, more especially, that your children are not out at night, loitering around some coffee house or theatre. Mothers! make your children love home, and by all means encourage them to love you better than all other human beings.—*Church Chronicle.*

How to Sustain and Improve the Quality of the Soil.

It has become an important inquiry among many of our farmers, how they shall fertilize such of their lands as are yielding large burthens of produce, which are taken off the premises for sale? Where remote from a large city, or places for supplying manures, this is a most important query, and one which they are highly interested in having answered correctly. It is absolutely certain, that farmers cannot annually rob their farms of large crops of grain, grass, and roots, without either supplying manure to the soil, or losing rapidly in its fertility. We shall briefly indicate some of the most obvious resources for sustaining and improving the productiveness of the soil.

In the first place, not an ounce of animal manure should be suffered to be wasted, either liquid or solid. When not dropped on the feeding grounds, but around the stables and yards, it should be carefully saved and treasured up, where

it cannot waste till used. This should be carefully and judiciously compounded with turf, or peat, or vegetable matter, so as to retain all its gases, and not be permitted to drain away, and as soon as a proper time offers, it should be carried on to the fields and at once incorporated with the soil. Another resource for many of our Eastern farmers, is the immense stores of peat and muck that are within their reach, and which tends greatly to benefiting a light, sandy or loamy soil. All the animal matters, bones, leached or unleached ashes, should be carefully collected and applied to their land, and any other fertilizing substance which is to be found around the premises or can be collected at not too great an expense in the neighborhood.

But in many cases where the stock of cattle is not large, and the produce sold from the land is considerable, some more definite and certain means for sustaining a farm must be resorted to. With the most intelligent and systematic agriculturists, a proper rotation is adopted, which has been found by experience, to be adapted to the locality and products. By this is meant, a regular succession of crops on the same fields through a series of years, which, at their expiration, are again repeated. They are so arranged that two grain crops never follow each other, but are separated by root crops, grass, &c. This system prevents the necessity of the soil yielding similar ingredients through two or more successive seasons, which it will seldom do to an extent sufficient to produce a good second crop. Time is required for it to decompose such of the ingredients which it contains, as are necessary to form what are called the inorganic portions of the plants, in such conditions to be taken up and appropriated by the plant. It also enables the cultivator to apply his green or putrescent manures to such crops as are most properly adapted to receive them. Such are corn and roots, and nearly all the objects of cultivation excepting the smaller grains.

The great object of rotation, however, is to give the land rest, as it is termed, when allowed to remain in grass or meadow; or refreshment, when clover or other fertilizing crops are plowed into the soil for manure. Such crops carry back to the soil so much of its materials as they have taken from it, and in addition, important elements which they have abstracted from the atmosphere; and they are found, by long prac-

tice, to be of great benefit in sustaining the fertility of the soil. Before passing on to a consideration connected with this particular point in the subject, of the highest importance, we would say, that a large share of the benefit to the land derivable from this practice, may be secured, by feeding the clover to such animals as will consume it on the ground. We say a part only, for all the food which goes to supply the respiration of the animal, which is no inconsiderable share, passes off into the air, and is lost. Another part is stored up in the augmented size of the animal, for it is certain that whatever weight it acquires while feeding, is at the expense of the soil. If milch cows are pastured, the abstraction of valuable ingredients is still greater, as it has been found that pastures fed off for a long time by cows, have been robbed of large amounts of phosphates of lime, and other important matters. If horses are thus fed and taken on to the roads and elsewhere to work, it is evident that large quantities of this manure will thus be lost to the fields supplying the food.

Sheep are undoubtedly the best adapted to the object we have in view. They remain stationary in the same fields where they feed, and return to them all they have taken, save what escapes by respiration, evaporation, or is stored by the wool or carcass. They also drop their manure on the highest and driest parts of the ground, where it is more beneficial than elsewhere, and we would more earnestly recommend the introduction of sheep husbandry on a more or less extended scale, to any farmer who practices the system of turning in crops for manure. The necessity of carrying them through the winter, will still further provide the materials for fertilization, by accumulating a store of manure from this source, which without the sheep or a full equivalent in other stock, would not be thus secured.

But to recur to the subject of turning in green crops. It is evident at a single glance, that this system does not accomplish all that is necessary in sustaining the full measure of fertility of land subject to close cropping. In a rotation consisting of clover and wheat simply, we find that the wheat abstracts large amounts of phosphate of lime, potash, gypsum, salt, &c., &c., which, if nothing be added to the soil, except the clover crop, will in a few years reduce any ordinary soil to so low a point, that it cannot yield

profitable returns. The land may continue to yield for a long time; but it is evident that it is losing properties at every successive harvest, which must be supplied to it, or it will eventually be exhausted.

The true and only remedy for this, is to ascertain by analysis either of your own, or the well established researches of others, precisely what of the inorganic materials, such as are inherent in the soil, and not found to any appreciable extent in the atmosphere, are taken from the land by cropping or feeding, and not returned to it by straw, manure, or offal of any kind, and return those materials to the land in such available shape, as will enable future crops to supply themselves with all that they require. This is indispensable to a succession of good crops and prolonged fertility, and no farmer is wise who neglects this practice for a single year, however seemingly well his adopted system may answer, which does not embrace the foregoing practice.—*Am. Ag.*

Excellent Cold Stew.—Take a nice fresh white cabbage, wash, and drain it, and cut off the stalk. Shave down the head evenly and nicely into very small shreds, with a cabbage-cutter, or a sharp knife. Put it into a deep dish, and prepare for it the following dressing. Take a gill or a half tumbler of the best vinegar, and mix with it a quarter of a pound of fresh butter, divided into four bits, and rolled in flour; a small salt-spoon of salt, and the same quantity of cayenne. Stir all this well together, and boil it in a small saucepan. Have ready the yolks of three eggs well beaten. As soon as the mixture has come to a hard boil, take it off the fire, and stir in the beaten eggs. Then pour it boiling hot over the shred cabbage, and mix it well all through with a spoon. Set it to cool on ice or snow, or in the open air. It must be quite cold before it goes to table.

Yellow Water.—Gentle exercise, a clean stable, and a little blood taken. For a drench give him, decoction, one ounce of assafetida; spirit of camphor, four table-spoonsful; warm water, one pint. Mix. To be repeated for three or four mornings in succession. Give in six quarts of mashed bran of flour of sulphur, one table-spoonful, of antimony and saltpetre, each twenty grains. The bran is to be mixed with sassafras tea, scalding hot, and this food is to be given three times a week, and never suffer the horse to drink cold water. It ought to be about milk-warm.

Scientific Farming.

We take great pleasure in endorsing the sentiments of "A Young Farmer," as set forth in the following communication, which we extract from a late number of the *American Agriculturist*.

It is a striking feature in the character of the cultivators of the soil, that they evince a greater degree of indifference in acquiring information from books, than that of any other class. How this should be the case, is a most difficult problem to solve, inasmuch as no class of the community could derive greater advantages from a thorough acquaintance with the principles which govern the operations of their professions, than the agricultural. Farmers do not object to benefit from any improvement in agriculture, which may be brought under their own observation, or which may be related to them by persons responsible. Information procured in this way, may raise a farmer to mediocrity; but he cannot make the most of his time and capital, by employing so limited a stock of knowledge in his very important business. What would be said of a physician at this enlightened age, who would obstinately refuse to benefit from the practice of his predecessors, and also of his contemporaries of this and other countries, except those with whom he had intimate acquaintance? It is needless to say, that such a man could not obtain license to practice, and a sensible community would have so little confidence in his ability as a practitioner, that he would not be consulted in cases where the patient was in imminent danger. The members of the learned professions, as they are called, the mercant, the mechanic, and the man of science, know well the value of knowledge which has a direct reference to their several professions. And there can scarcely be found among the classes we have enumerated, an individual who does not tax himself to the extent of, at least, five pounds per annum, for the purchase of books and periodicals, which have a direct reference to his business; and the most eminent and learned men of the present age, make it a point to purchase at least one hundred pounds' worth of books, magazines, and periodicals, per annum; all of which contribute greatly to increase their stock of knowledge, and without such agents their talents would have been buried, comparatively speaking, in the sand. Probably there are not a score of farmers in British America, whose

average annual purchase of works upon practical and scientific agriculture, would amount to five pounds. This sum judiciously expended in the purchase of the leading agricultural periodicals, and the best standard works upon agriculture, would, in the course of a few years, afford a mine of knowledge to the young aspiring farmer, that would be productive of the most important results to himself and to his country. The exalted sentiments of "a Young Farmer," as expressed in the quotations which begin and end his spirited epistle, show most conclusively that the writer places a high value upon knowledge; and deems the business of agriculture to be "the most healthful, the most useful, and the most noble employment of man.

None but a well-read and close observing young farmer, could express such clear views of the condition of the farmers of this continent, and it would be a happy day for Canada, were the farmers' sons equally competent to advocate her agricultural interests. The new era, which the enlightened writer hopes soon to see dawn upon his country, can only be brought about through the means which he suggests; and it is to be hoped, that every farmer in Canada will contribute his full quota of aid in endeavouring to bring about a similar result in his own devoted country.

In conclusion, we would advise every farmer, who has a spark of patriotism, to exert his utmost in cultivating a taste for rural employment in the breasts of the young:

"Knowledge is power." I would that farmers more generally adopted this maxim. I look around and behold the rapid march of science, the vast improvements in the various mechanic arts, and the onward progress of civilization. Man has been furnished with everything conducive to his happiness, and endowed with intellectual faculties capable of securing it. He can study the sublime truths of the abstract sciences, his education and expansive mind can soar above and contemplate the starry heavens, the mighty orb that wheel their course around the sun; he looks within himself and sees the beautiful simplicity of his internal organization, and is led to exclaim, how "wonderfully and fearfully we are made." The talents of man have been variously exerted and applied since the first formation of society; some of the most brilliant have been exerted in the pursuit of political fame; some have exhausted their energies in the promulgation of the simple and divine truths of religion; the flowing mounds of some have roamed over the flowery fields of imagination, and produced the most exquisite poetry; while the powerful and

splendid talents of others, like those of a Newton or a Franklin, have demonstrated the most complex and abstruse problems of astronomy and philosophy. But how few have turned their attention to scientific farming, and reduced it to practice? While improvements have taken such immense strides in all other branches of industry, to which as yet man has turned his attention, why is it, that agriculture must remain behind the age, and plod on in its monotonous career? It is, because, until of late, tilling the soil was not considered a dignified occupation, and as requiring no scientific investigation. But it should be studied deeply; each farmer being able, if possible, to analyze his soil, and learn what substance is wanting to mature the seed he expects to commit to it; he should learn the nature and organic structure of each and every plant he wishes to raise, and apply those manures, containing the required matter, to bring them forth in their fulness, and he will be many fold rewarded. The cultivation of the earth is that occupation of which the Deity has expressed decided approbation.

Agriculture is the parent of all sciences; it is co-val with the history of man, and the surest safeguard to a nation's prosperity and welfare, and the means of uniting in the strongest bonds of fellowship, its co-laborers. In the earliest age of the world agriculture was deemed paramount with the interests of mankind. The ancients tilled the soil and produced abundantly, and attributed that which was the reward of their own labor to the care of their goddess Ceres. Hesiod sung of the labors of the field; the Carthaginians by agriculture, prepared Sicily to be the granary of the world. Regulus, a Roman senator, sought retirement from public life, to till his farm. No pursuit is more congenial to health, to the free exercise of the physical and mental faculties. The green fields, the gently waving forests, the trees bending beneath their weight of golden fruit, and the rich harvests, bespeak the wisdom, goodness, and design, of an all-powerful Creator. We inhale the pure air, and are led to "look from nature up to nature's God." Yet, young men who have been brought up in the country, most wend to the brick bound city, in quest of a precarious fortune, which they more often fail in acquiring; whereas, if they would remain in the country; and exert their mental, in connection with their physical powers, they would be sure of a slow but steady gain, and generally make better men. But they must bow to their idol fashion, and sacrifice their fortunes and health upon her altar, not content to live by the sweat of their brows, and read the book of nature as it lies open before them.

By the formation of societies, and the circulation of good agricultural papers, I hope to see a new era dawn on this the mother employment of the earth, on which all other industry must depend for a subsistence. A great stumbling block in the way of improved culture is, the sterna prejudice which so many farmers

have to so-called "book farming;" they pronounce this with a sarcasm due to uneducated men. I have heard many say, an agricultural paper was the last thing they wished to read; such follow precisely in the footsteps of their grandfathers, and of those farther back, for aught I know. But you have a laudable zeal, in arousing this dormant feeling which has so long prevailed; I heartily wish success to your exertions. Children of the soil, put your shoulders to the wheel of improvement, that it may turn in your favor, and let it carry treasures to your coffers, and happiness to the community at large. Young men, turn your attention to that of rural occupation, which the Father of his country has pronounced "the most healthful, the most useful, and the most noble employment of man."

A YOUNG FARMER.

Flushing, L. I., Sept., 1845.

Animal Poisons.—The venom of the bee and the wasp is a liquid contained in a small vesicle, forced through the hollow tube of the sting into the wound inflicted by that instrument. From the experiments of Fortena, we learn that it bears a striking resemblance to the poison of the viper. That of the bee is much longer in drying when exposed to the air, than the venom of the wasp. The sting of the bee should be immediately extracted; and the best application is opium and olive-oil; one drachm of the former finely powdered, rubbed down with one ounce of the latter, and applied to the part affected by means of lint, which should be frequently renewed. No experiments upon which we can rely have been made by the poison of the spider tribe. From the rapidity with which these animals destroy their prey, and even one another, we cannot doubt that their poison is sufficiently virulent. Soft poultices of fresh flesh, bread and milk, or in the absence of these, even mud, are excellent applications to the stings of bees, and even the bites of the most venomous snakes. The specifics, recommended in such cases for internal use, are not to be compared in efficacy with the timely application of a poultice of the flesh of a chicken or other animal recently killed. The flesh of the rattlesnake itself, in some parts of America, is reckoned to possess specific virtues, and doubtless will answer nearly, if not quite as well, as any other good soft and moist poultice, which will seldom fail to effect a cure when promptly applied and frequently renewed. In this way the irritation and inflammation induced by the poison in the part bitten, is often arrested at once, and prevented from extending to vital parts. These conclusions are the results of experiments made with the poison of the rattle-snake, in which the most celebrated Indian and other specifics were used with little if any advantage.—*Farmer's Encyclopedia.*

To stain Wood like Ebony.—Take a solution of sulphate of iron, and wash the wood over with it two or three times: let it dry, and apply two or three coats of a strong decoction of logwood; wipe the wood when dry with a sponge and water, and polish with oil.

Fire-Proof Wood.

Lord Stanley has communicated to the Governor of Canada and Nova Scotia, in a recent despatch, on account of an invention for making wood fire-proof. To Sir William Burnett belongs the credit of the invention. The communication with the Colonial Governors took place in consequence of the recent calamities at Quebec, which might have been prevented had this invention been practically applied. The Board of Admiralty in England have ordered all the magazines to be constructed of this material. A piece of Canada pine covered with this material will successfully resist the effects of a red hot iron. The following shows the result of a series of experiments tried at Portsmouth:—

One of the furnaces at the Metal Mills, in which the cakes of the copper are heated, previous to rolling, was selected for experiments. The heat of this furnace was very great.

Care was taken after the preparation, to endeavour to bring both to the same degree of dryness.

RESULT OF EXPERIMENTS.

African Oak.—The unprepared burst into a strong flame in 25 seconds. The prepared continued to resist flame for 2 minutes, and then a weak flame began to play over its surface.

English Oak.—Unprepared burst into flames in 5 seconds. Prepared burst into flames in 40 seconds, in a small flame. At the end of 10 minutes the unprepared was rather more consumed than the other, but the difference was not considerable.

Indian Oak.—Unprepared ignited into a flame in 15 seconds. Prepared into a small flame in 35 seconds.

Danish Fir.—Both prepared and unprepared being thrust towards the hottest part of the furnace, burst into flames immediately; but the heat was considered too great for such an experiment.

New Zealand Cordic.—Placed not so far in the furnace as the above, but both immediately ignited into flame, the prepared, however, burnt less fiercely than the other.

Pitch Pine.—Unprepared burst into flames, in 5 seconds. Prepared resisted flame $\frac{1}{2}$ seconds and then gave out a flame.

Red Pine, Canada.—Red hot iron placed over both. The unprepared burst into flames immediately. The prepared gave no symptoms of flame, and the iron became cold without its inflaming.

Elm, Canada.—Placed in the hot pots containing the copper cakes lately ladled out of the retorting furnace, the unprepared ignited into flames in half a minute; the prepared into a very much smaller flame in 2 1-2 minutes.

Yellow Pine, Canada.—Placed in the cake pots similarly to the before mentioned, the unprepared burst into flame immediately; the prepared was watched for 12 minutes, but burst into flame not at all. The heat was great.

A second experiment was tried on this Timber by placing red hot iron on it. The unprepared ignited immediately into flame, the prepared not at all.

The cost of preparing timber for building purposes, if it be desired to preserve it from dry rot only, will be from 9s. to 13s. 6d. per load, according to the greater or less absorbent properties of the wood.

But if the timber is intended to be rendered unflammable, the cost will vary from 25s. to 35s. per load; and it may be well to mention that unseasoned timber is even more readily and effectually prepared than that which has been cut, the sap which is in green wood, being firmly set by the process.—*Port Hope Gazette.*

Grooming.

Of this, much need not be said to the agriculturists, since custom, and apparently without a full effect, has allotted so little of the comb and brush to the farmer's horse. The animal that is worked all day, and turned out at night, requires little more to be done to him than to have the dirt brushed off his limbs. Regular grooming, by rendering his skin more sensible to the alteration of temperature, and the inclemency of the weather, would be prejudicial. The horse that is altogether turned out, needs no grooming. The dandruff, or scurf, which accumulates at the roots of the hair, is a provision of nature to defend him from the wind and the cold.

It is to the stabled horse, highly fed, and little or irregularly worked, that grooming is of so much consequence. Good rubbing with the brush, or currycomb, opens the pores of the skin, circulates the blood to the extremities of the body, produces free and healthy perspiration, and stands in the room of exercise. No horse will carry a fine coat without unnatural heat or dressing. They both effect the same purpose; they both increase the insensible perspiration, but the first does it at the expense of health and strength, while the second, at the same time that it produces a glow on the skin, and a determination of blood to it, rouses all the energies of the frame. It would be well for the proprietor of the horse if he were to insist—and to see that his orders are really obeyed—that the fine coat in which he and his groom so much delight, is produced by honest rubbing, and not by a heated stable and thick clothing, and most of all, not by stimulating or injurious spices. The horse should be regularly dressed every day, in addition to the grooming that is necessary after work.

When the weather will permit the horse to be taken out, he should never be groomed in the stable, unless he is an animal of peculiar value, or placed for a time under peculiar circumstances. Without dwelling on the want of cleanliness, when the scurf and dust that are brushed from the horse, lodge in his manger, and mingle with his food, experience teaches, that if the cold is not too great, the animal is braced and invigorated to a degree that cannot be attained in the stable, from being dressed in the open air. There is no necessity, however, for half the punishment which many a groom inflicts upon the horse in the act of dressing; and particularly on one whose skin is thin and sensible. The currycomb should at times be lightly applied. With many horses, its use may be almost dispensed with; and even the brush needs not to be so hard, nor the points of the bristles so irregular, as they often are. A soft brush, with a little more weight of the hand, will be equally effectual, and a great deal more pleasant to the horse. A hair-cloth, while it will seldom irritate and tease, will be almost sufficient with horses that have a thin skin, and that have not been neglected. After all, it is no slight task to dress a horse as it ought to be done. It occupies no little time, and demands considerable patience, as well as dexterity. It will be readily ascertained whether a horse has been well dressed by rubbing him with one of the fingers. A greasy stain will detect the idleness of the groom. When, however, the horse is changing his coat, both currycomb and the brush should be used as lightly as possible.

Whoever would be convinced of the benefit of friction to the horse's skin, and to the horse generally, needs only to observe the effects produced by well hand-rubbing the legs of a tired horse. While every enlargement subsides and the painful stiffness disappears, and the legs attain their natural warmth, and become fine, the animal is evidently and rapidly reviving; he attacks his food, with appetite, and then quietly lies down to rest.—*Sorratt*

To Increase the Fertility of Seeds.—Nitrate of potash, 1 part; draining from a dunghill, 15 parts. Mix, and steep the seeds in it.

To Extract Grease Spots from Silks and Muslins.—Put a little powdered French chalk on the spot, cover it with a piece of paper, and apply a hot iron.

Fictitious Linseed Oil.—Fish or vegetable oil, 100 gallons; acetate of lead, 7 pounds; litharge, 7 pounds; dissolved in vinegar, 2 gallons. Well mix with heat, then add boiled oil, 7 gallons, turpentine, 1 gallon. Again well mix.

Remedy for Colic or Gripes in Horses.—After bleeding from the neck, drench with the following mixture. Laudanum, 1 ounce; of mint tea, warm, 1 quart. Mix. After which give an injection made in warm water, salt, meal, hog's lard, and molasses.

Remedy for Scratches in Horses.—Wash with strong soap-suds, then with strong copperas water. Repeat this twice a day until he is cured; for a daily drink give sassafras or spice-wood tea, or a little saltpetre dissolved in his drink. Some recommend the juice of Jamestown weed, or a decoction of red oak bark; others, spirits of turpentine, or blue-stone water, greasing after with hog's lard. Poke root is also good. But by all means keep the horse's feet clean.

White Cerate.—Sweet oil and white wax, each 1 pound; spermaceti, 2 ounces. Melt, then add water, 1 pound, and continue stirring until cold.

Toothache Oil.—Oil of cloves, 1 part; laudanum, 2 parts; camphor 2 parts; oil of cassia, 3 parts. Mix.

Remedy for Toothache.—Take a small piece of the inside of a nutgall, and put it into the tooth; replace it by a fresh piece at intervals of an hour.

To prevent the Toothache.—Clean your teeth every morning with Sibella snuff, or powdered tobacco, and well wash your face with cold water.

To destroy Moss on Trees.—Paint them with white-wash made of quicklime and wood ashes.

Remedy in Bots and Grubs.—This disease is easily known, by the horse's inclination to lay down, his looking round to his sides, he groans, he whips his tail between his legs, is feverish (to discover feel his ears), and frequently turns up his upper lip. Take copperas, 2 spoonful; warm water, 1 pint. Dissolve and drench. Repeat if necessary, or drench with linseed oil, or with equal parts of milk and molasses, always repeating if the animal is not apparently better in half an hour.

Strangles.—Feed with light, cooling (green if it can be had) food; mix the food with sassafras tea, in the which a spoonful of powdered sulphur and a tea-spoonful of saltpetre has been added. Assafœtida tied in a rag and placed in the watering bucket, another in like manner placed in the manger, is highly recommended.

To destroy Insects, on Trees, Shrubs, &c.—Tie up some flowers of sulphur in a piece of gauze, and dust the plants with it.

Ice-Houses.—We need not go to China to learn how to make an ice-house. "A cheap plan for an ice-house," has been known in this ice-growing country of ours so long, that the fashion has got to be so old it has been forgotten. Where hay or straw is plenty, it has the merit of cheapness as well as goodness. It is built thus:

Mark a circle upon the ground (if for a single family), say 12 feet diameter, and drive a row of stakes 18 inches apart, 6 feet high; outside of this, set another circle of stakes, 4 feet from the inner one; now fill in very compactly with coarse hay or straw between the rows of stakes; cut out a space for a passage, which must have two doors to fit tight; lay poles across the inner space, and build up a stack to shed off the water; lay some poles or brush in the bottom to keep the ice off the ground, which keep well drained, and your "cheap ice-house" will keep itself and yourself cool.

Try it. I assure you that it will keep in till you are tired of it, and then it will make the old sow and pigs a capital hen roost.

SOLOM ROBINSON.

New York, October, 1845.—*Am. Ag.*

Founder in Horses.—Mr. Editor,—I had a fine horse last summer, badly founderd. He could barely hobble about and seemed to suffer from the slightest movement. I recollected a remedy recorded in the *Planter*, and, after bleeding copiously from the neck, I applied your correspondent's prescription. Heating hog's lard to boiling heat, each hoof was inserted in the vessel filled three or four inches with the oil, which hissed upon the hoof. Nothing more was done, and the next day the horse was entirely recovered.

T. Y. D.

—*Southern Planter.*

Cure for Spavin.—Mr. E. D. Worbasse, of New Jersey, writing to the Editor of the *Cultivator*, says, "The following I have found would cure a bone spavin in its first stages, if properly applied. Add to two table-spoonsful of melted lard, one of cantharides, made fine or pulverised, and a lump of corrosive sublimate, as large as a pea—all melted up together, and applied once a day till used up, confining it to the callous. This quantity is for one leg, and may be relied on as a cure. It will make a sore and the joint will be much weakened while applying the medicine. No need of alarm; it will be right when healed."

Economical Pearl Grey House Paint.—If a particle of blue be added to the preceding composition, or if this blue be combined with a slight portion of the black, a silver or pearl-grey will be obtained.

Indian Ink.—Take finest lamplack, and make it into a thick paste with thin singlass; size, then mould it, attach the gold-leaf, and scent with a little essence of musk.

2. Take lamplack, make it into a thick paste with gum water, and mould it.

Use of Bones as Manure.—Both the organic and inorganic parts of bones are fertilisers; the total action of the inorganic is greater than that of the organic; when applied in conjunction the latter has a tendency to retard the action of the former; this tendency may be counteracted by pulverising the bones; it may be most effectually accomplished by dissolving the bones in a diluted acid; and the fertilising influence of the bones thus treated will be quadrupled. This latter conclusion is, moreover, a practical truth of the greatest value, as it offers a saving of one-half the usual cost of the manure; and the various circumstances under which the several applications which support this conclusion were tried without one contradictory result, place that conclusion beyond the possibility of error, and justify us in asserting that practice has already realised what theory previously promised—"the most important saving which was ever held out in the use of manure."—*J. Hanman; English Agricultural Society's Journal.*

Efficacy of Ammonia in cases of Poison.—A young man in this place had accidentally overset a hive of bees, and before he could escape, they had settled in great numbers on different parts of his body and limbs and stung him severely. It was about half an hour after the accident happened, when he came to my office in great agony, and he had scarcely time to give an account of it before he fainted. I immediately applied the ammonia to the parts that had been stung, his legs, arm, and breast. He directly recovered from his faintness, and experienced no pain or other inconvenience afterwards. It is several years since I first used the aqua ammonia, to counteract the effect of the bites of insects and the stings of bees, and it has invariably produced instant relief—generally complete. I have often seen children crying in excessive pain from the sting of a bee, and on application of the ammonia they would immediately cease complaining, and become cheerful, so complete and sudden is the relief it produces. I always use it for musquito bites, and they never trouble me farther. I was led to use it in these cases, from the instantaneous effect it was said to have in counteracting the operation of prussic acid. In the second number of the *American Journal of Medical Sciences*, (Philadelphia,) for the last year, it will be seen that Mr. Moore, of Alabama, used it with great success in the cure of bites of venenous serpents. From his account, it is probable that the preincubated aqua ammonia is most efficacious. I have sometimes noticed a difference, and think it must be on account of its being sometimes carbonated, and at others not.—*Extract of a letter from Dr. Church to the Editor of Silberman's Journal of Science, dated Cooperstown, N. Y. February 6th, 1829.*

To Kill Roaches.—Wafers, made of red lead, and wheat flour.

How to Judge the Animal that will Fatten Easily.—

The first criterion for judging of the disposition of the beast to fatten quickly, in my opinion, is a peculiar soft, supple feel of the skin, which is commonly called handling well; this is generally accompanied by hair of a soft, fine quality, in great plenty: the eye should be full and clear, and the head well formed; the shoulders not upright, but lying well back; the chest full, the ribs deep and well arched over, the flanks well down the hips nearly level with the backbone, and, in proportion to the rest of the carcass as to width, the rumps wide and not too low down, appearing as if, when fat, the tail and rump's end would be level (but this the butchers in my neighborhood are in the habit of calling the fool's point); the purse should be of a full size, and soft to the touch (this I consider a material point); the twist good, and the legs short and small in proportion to the carcass, as the ossal will be light in proportion to the legbone. Next observe the temper of the animal: in selecting from a considerable drove you will often find beasts possessing many of these good points, yet in lower condition than some of the animals of a worse appearance; consider well whether this may not arise from the masterful disposition of the ill-made one, and whether, when put to fatten where every beast may eat his share of food without disturbance, the good-bred one will not surpass his more masterful neighbor.

If you observe a beast that is constantly watching an opportunity of going any other that comes in his way, leave him behind, even if he is much heavier than those you select; he may be a great trouble to you; and although the jobber may think you have selected them badly, he will sell them according to what they are worth at the time, and the present weight is the great point with him. For this reason always select the animals before purchasing, rather than agree to give a certain price per head to pick where you like from the drove. I think the quality of an animal is of more consequence than its form, for common fattening purposes, but have both good if you can. But if you are thinking of fattening an animal to show for a prize, be sure to have his form as perfect as possible; for all the flesh you may lay upon him will not hide any great defect in his form: also ascertain, if possible, how the animal is descended; ten to one but the progeny becomes similar to the progenitor. But this is generally a most unprofitable affair, and I strongly recommend all young farmers to leave it in the hands of those gentry who can afford the loss, many of whom are in the country, and they deserve our best thanks for their patriotism, for it certainly shows the capabilities of different breeds, and thereby enables the observing farmer to profit by the experience of others. Never buy animals that are excessively poor; they will consume a great deal of food before they are got into health enough to fatten.

Ed. Dobie—English Ag. Society's Journal.

Mr. John Scurr, farmer, of Greenside Trinden, near Sedgfield, a short time ago had a sheep, which for a fortnight had been ill. Three days it was unable to get upon its feet. Mr. Scurr happened to have a friend who called upon him on business, and they together went to see the sheep. His friend pronounced the animal all but dead, it being ill of the "sturdy," or water in the head, which he said was incurable. They consequently left the sheep to die. A servant boy, named Gilpin, who lived with Mr. Scurr, overheard their discourse, and immediately went to his master's house and procured a gimble, when he returned to the field where the sheep was, and, without practice or skill in the art, began cautiously to operate upon the head of the animal, by boring a hole exactly upon the top of the scalp, which done, the water streamed out of the head, and, strange to say, in a few minutes the sheep got upon its feet and started to eat grass, and is now doing as well as any of its fellow grass eaters.—*New Farmer's Journal.*

To extract Grease from Clothes.—Lay a piece of brown paper doubled over the spot, and apply a hot iron.

To Make and Fine Coffee.—Put a sufficient quantity of coffee into the pot and pour boiling water on it, stir it and place it on the fire, bring it to a boil, and as soon as four or five bubbles have risen, take it off the fire and pour out a tea-cupful and return it; set it down for one minute, then pour gently over the top one tea-cupful of cold water, let it stand one minute longer, and it will be bright and fine. The cold water (by its greater density) sinks and carries the grounds with it.

Method of preventing Cold Feet at Bedtime.—Draw off your stockings just before undressing, and rub your ankles and feet with your hand, as hard as you can bear the pressure, for five or ten minutes, and you will never have to complain of cold feet in bed. It is hardly conceivable what a pleasurable glow this diffuses. Frequent washing of the feet, and rubbing them thoroughly dry with a linen cloth or flannel, is very useful.

Economical White House Paint.—Skim milk, 2 quarts; fresh slaked lime, 8 ounces; linseed oil, 6 ounces. white Burgandy pitch, 2 ounces; Spanish white, 3 pounds. The lime to be slaked in water, exposed to the air, and mixed in about one-fourth of the milk; the oil, in which the pitch is previously dissolved, to be added a little at a time; then the rest of the milk, and afterwards the Spanish white. This quantity is sufficient for twenty-seven square yards, two coats, and the expense not more than tenpence.

Remedy for Dotts—First drench your horse with sweet milk and molasses. Second, in a reasonable time drench him again with a quart of beef brine. Alum water is good; so is saltpetre water. A purge should always be given soon after the drench. A strong solution of salt and water, with a little alum, would perhaps be as good as the brine.

Sympathetic Ink.—1. A dilute solution of nitromuriate of cobalt. When heated, the writing performed with this ink assumes a fine green color and disappears again when cooled.

2. An acetic solution of oxide of cobalt, to which add a little nitre. On exposing writing performed with the above to heat, it will assume a fine rose color, which disappears on cooling.

3. Sal-ammoniac, sulphate of copper, equal parts; water sufficient. This assumes a yellow color when heated, and, like the preceding, disappears when cooled.

Indelible Ink, for Marking Linen.—1. The juice of sloes, 1 pint; gum, $\frac{1}{2}$ ounce. This requires no mordant, and is very durable.

2. Nitrate of silver, 1 part; water, 6 parts; gum, 1 part. Dissolve. If too thick, dilute with warm soft water.

To escape the Effects of Lightning.—1. Avoid standing under trees, to escape from rain during a thunder storm, but boldly expose yourself to the wet; it will preserve you from the lightning.

2. Avoid standing close to any metallic bodies, as lead pipes or iron railings, &c.

3. When in doors during a thunder-storm, sit or stand as near to the middle of the room as convenient; avoid standing at the window, or sitting near the wall.

Lime Water.—Quicklime, 1 part; water, 16 parts. Mix, and after a short time well shake the vessel, then let it stand to settle, and decant the clear. This article should be both made and kept in a close vessel.

Fomentations, or Poultices.—Bran, two quarts; hot vinegar, one pint; hog's lard, two ounces. Mix.

Another.—Make a poultice of a strong decoction of red oak bark and Indian meal.

Another.—Make a poultice thus: Vinegar, one pint; meal, two quarts; hog's lard, four ounces. Boiling water sufficient to mix.

To make Hens lay perpetually.—Give your hens half an ounce of fresh meat each, chopped fine, once a day, while the ground is frozen, and they cannot get worms or insects; allow no cocks to run with them, and they will lay perpetually. Try it. They also require plenty of grain, water, gravel, and lime.

Blisters for Horses.—Spanish flies, half an ounce; oil of turpentine, one ounce; hog's lard, one quarter of a pound. Mix.

Another.—Tar, one quarter of a pound; vitriolic acid, two drachms; oil of origanum, half an ounce; hog's lard, two ounces; Spanish flies, two ounces. Good for spavin.

Furniture Varnish.—White wax, 15 ounces; yellow resin, 1 ounce, powdered; spirits of turpentine, 1 quart. Digest until dissolved. Lay it on with a brush or cloth, and well polish with a clean piece of woollen.

Remedy for Poisoning from Fungi.—Ether, 2 drachms; tincture of capsicum, 1 drachm. Mix and divide into two doses. First, induce vomiting, and administer some active clyster, then give the above at intervals of half an hour, in a little warm fluid.

Cheap Yellow Paint.—Whiting, 3 cwt. ochre, 2 cwt.; ground white-lead, 25 pounds. Fictitious linseed oil to grind.

A quick Purge for Horses when Bound.—Take one pint of olive oil and a half pint of soft soap. Mix. Given as a drench.

Cure for the Scurvy.—Flour of sulphur, 2 parts; cream of tartar, 1 part. Four large teaspoonsful to be taken every morning in milk or treacle.

Ointment for inflammation of the Eyes.—Protochloride of mercury, forty grains; spermaceti ointment, one ounce. Mix.

To preserve Furs from Moths, &c.—Wrap up a few cloves or peppercorns with them, when you put them away for any length of time, and always keep them in a dry place.

To make a Mash.—Bran, 1 gallon; powdered brimstone, 1 ounce; saltpetre, 1 tea-spoonful; sassafras tea (scalding hot), 1 quart. mix.

Another way.—Sulphur, in powder, 1 tea-spoonful; an equal quantity of saltpetre; oats 1 gallon; boiling water, 1 quart. Mix.

Another Mash.—Bran, 1 gallon; glauber salts, $\frac{1}{2}$ pound; sulphur, 1 table-spoonful; sassafras tea, boiling hot, 1 quart. Mix. No drink to be given for six hours.

Tar.—For greasing wagons, we think an absurd article. In the hottest weather it soon gums up and becomes adhesive, and in cold weather is always so. Wherever iron axle-trees are used, black-lead mixed with grease is best—or flour mixed with lard.

Common White Lead.—Pure white lead, 1 cwt., sulphate of barytes, 2 cwt.; chalk, 3 cwt. Mix.

Heel Balls for Leather.—Tallow, 2 parts; yellow wax, 2 parts; resin, 2 parts; ivory black, 1 part; lamp-black, 1 part. Mix.

Honey of Roses.—Fresh rose-leaves, 1 part; water, 1 part. Steep for one week, then add honey, 3 parts. Steep one week longer, and strain with expression.

White Paint.—Whiting, 5 cwt.; white lead, 4 cwt.; lime water, 20 gallons. Fictitious linseed oil to mix.

To choose Geese.—A young goose has a yellow bill, if red it is a sign of age; if fresh, the feet will be pliable, but stale it stiff and dry.

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FOUR YEARS have now elapsed since the issue of the first number of the *British American Cultivator*, and the friends of Agriculture in British America have had by this time a good opportunity to judge of its usefulness. The enterprise, up to a recent period, could be considered only in the light of an experiment, inasmuch as a great number of unsuccessful attempts have been made to establish in these Provinces a Journal devoted to the great interest of Agriculture. By perseverance and heavy sacrifice of capital, the Proprietors of the *British American Cultivator* have now the pleasure to state, that the work is placed upon a sound footing, and that THE SECOND VOLUME, (new series) will be conducted with a greater amount of spirit and ability than were embodied in the entire four volumes which are before the public.

There are no less than four hundred thousand practical farmers in British North America, a 1 of whom would be greatly benefited in a pecuniary point of view, were they individually to subscribe for a talented practical work upon Agriculture, adapted to the climate, soil, and other influences of the country.

As an inducement for every friend of Agriculture to patronise such a Magazine, the Editor, who is practically engaged in extensive agricultural operations, purposes to devote a large share of his time to the editorial management of the *British American Cultivator*, by which means he intends that it shall be made nearly an original work, composed of valuable information upon every branch of husbandry that would be calculated to interest the inquirer after agricultural knowledge.

The *Cultivator* for 1846 will differ materially from the preceding volumes, and the most promi-

nent improvements will consist of Reports of the Methods of Cultivation, as practiced by the best farmers in Canada, which will be collected and prepared for the press by the Editor; of a rich display of COSTLY ENGRAVINGS, illustrating the most approved agricultural Implements of modern invention; besides a great variety of other improvements that could be better described in this way than with the pen; and of a classification of articles, so that when practicable, each may appear under their appropriate heading.

In addition to these new features of the *Cultivator*, a few pages in each number will be devoted to a department for the Ladies, or Farmers' Wives and Daughters, and an equal space to a department for the Boys; and to make the work generally acceptable to all classes of the rural population, two or three pages in each number will be devoted to Horticultural subjects, and an equal space to matter that will be particularly interesting to the Backwoodsman.

The friends of Agricultural Improvement will perceive that the foregoing important pledges have been voluntary made by the Editor, in order to convince them that the great reform in Agriculture, which is so needful for the full development of the great resources of the North American Provinces, is a progressive work, and that he is fully determined to devote his whole energies in aiding his brother farmers, to elevate the standing of Agriculture in these highly favored Colonies, so that it may favorably compare with the best cultivated portions of the globe. The Editor further pledges himself that no trouble or effort shall be spared, to cultivate a taste for Agricultural Literature among all classes of the population of British America.