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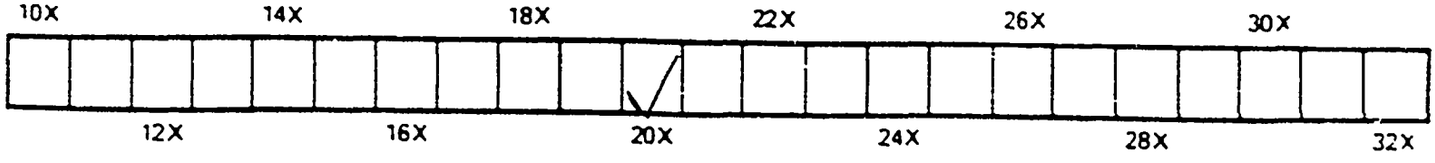

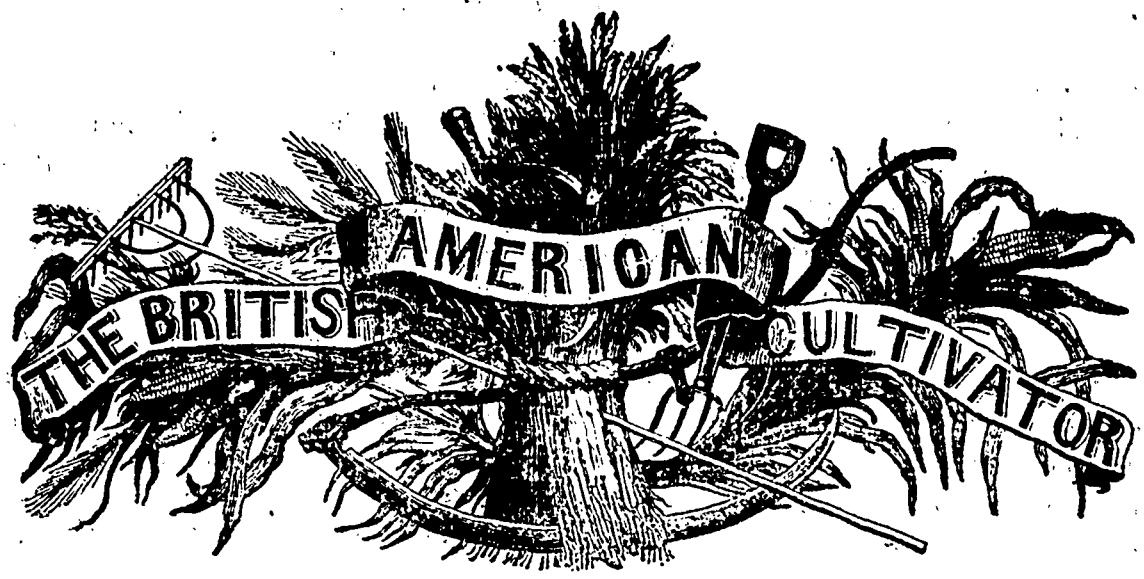

"Agriculture not only gives Riches to a Nation, but the only Riches she can call her own.

New Series.] TORONTO, FEBRUARY, 1845. [Vol. I.—No. 2.

WORK FOR THE MONTH.

Much of the business of the last month may still be continued; thrashing, and delivering grain to market, should be completed for the season by the end of this month. Preparation for enclosing wood lands should now be made in such instances where this work has been neglected. Stock require protection from the rays of the sun; and where it is practicable, wood land pasture should be reserved until mid-summer, when it would be found a most valuable acquisition to the stock-breeder. This is a good time to draw out barn-yard manure to the potato and turnip fields; it should be made into large heaps, and covered with short manure or swamp mould. Breeding animals and young stock now require careful attention. Ewes especially should have a regular supply of roots and hay. It is bad economy to put breeding animals upon short allowance of food, especially during the winter months. It is decidedly the most profitable course to keep a small stock well, than to half starve a large stock, as is too much the practice in this country.

Vigilant preparation should now be made for the manufacture of maple sugar. Hitherto but comparative little attention has been bestowed upon this important branch of industry in this province. The inhabitants of Canada might doubtless manufacture a sufficient quantity of maple sugar to supply the demand or consumption in this article for the whole population of the country. This variety of sugar may be refined, and made as valuable for table use, as the finest qualities of West India sugar. On the south shore of Lake Huron, and the islands of this inland sea, there are forests of sugar maple unsurveyed, capable of producing a supply for our whole population. The Indians upon those islands have lately turned their attention pretty largely to the manufacture of sugar from the maple; and during the last season, although it was an unfavourable one for this business, many tons were exported from this source. If the Indians could obtain a fair value for their sugar, any

seven or eight dollars per 100 lbs., they would extend their operations upon a large scale. Upon these islands alone there are upwards of a million of full grown maple trees, capable of yielding each from two and a half to three lbs. of excellent sugar per annum; and if proper attention were given to this branch of production in this quarter, we see no reason why a most profitable business could not be carried on. Every farmer who has a grove of sugar-maple, should endeavour to manufacture at least sufficient for the consumption of his own family. In most cases 150 trees of medium growth, would yield an amount of sap that would make 300 lbs. of sugar, 25 gallons of molasses, and a barrel of vinegar. The labor required to manufacture this amount of sugar, molasses and vinegar, would scarcely be felt by the well organised cultivator, as the season for the business is at the close of the winter and opening spring, when no labour can be done upon the land.—We venture the opinion, that in proportion to the amount of labour and money expended in the production of maple sugar, that it is as capable of yielding as large a return of profits as any other branch of farm labour. It is certainly an object of great national interest to the inhabitants of this colony that they should supply their own market with such products as their highly favoured country is capable of producing. Sugar is an article which will ever find a ready sale at highly remunerating prices, provided that it be properly manufactured, and brought into market in good condition.—It requires a little outlay at first, to purchase buckets, [illegible] and boilers, to stock a sugar [illegible] carefully using the ab[illegible] apparatus, they will last [illegible] period.—A farmer can supply himself with the suitable materials for performing the sugar business without any costs further than his own labour. This is the season of the year that every thing should be put in readiness,—even the wood should be chopped and drawn to the spot, so that when the sap commences to run, there may be no impediments in the way to hinder the complete success of the business. It is to be hoped that every farmer may resolve to supply his family with a twelvemonth stock of domestic manufactured sugar—and by putting this resolve into practice, a great saving in money will not only be effected to the rural classes, but the wealth of the country will be greatly increased. The importation of sugar in this country may very safely be computed at £40,000 per annum, and the whole of this amount of money could be retained in the country if only the people would look well to the matter. In every great enterprise in which the wealth of the country is to be materially increased, we expect that the intelligent farmers will be first to lead the way; and in the matter before us especially, it is to be expected that they will be the most prominent class of operatives. To ensure the greatest amount of success to these operations, we embrace this opportunity of advancing a few sound and practical directions which may be of use to those of our readers who may engage in this branch of business. In tapping, the gouge is the best implement that can be used, provided that it is an object to save the timber.—It is usual, when using the gouge, to take out a chip about an inch and a half in diameter; but as this system is objectionable, where the maple is not abundant, as it subjects the timber to decay, it is a better course to make an incision,

by holding the gouge obliquely upwards an inch or more in the wood. A spout, or spile, as it is termed, about a foot long, to conduct off the sap, is inserted about two inches below this incision with the same gouge. By this mode of tapping, the wound in the tree is so small, that it will be perfectly healed or grown over in two years. A boiler made of thick sheet iron, made to rest on the top of an arch, by which the sides would be free from heat, and only the bottom exposed, is doubtless a secure and rapid process of evaporation. The sides and ends of the boiler may be made of well seasoned boards, which will answer the same purpose as if made solely of sheet iron. When the sap is boiled down into syrup or thin molasses, it should then be taken out of the boiler and strained through a flannel cloth into a tub, where it should settle about 24 hours.—The clear syrup should be separated from the sediment which will be found in the bottom of the tub. The pure syrup should be boiled down into sugar over a slow fire. A short time, however, before the syrup is brought to a boiling heat, to complete the clarifying process, the whites of five eggs well beaten, about one quart of new milk, and a spoonful of saleratus, should be all well mixed with a sufficient amount of syrup, to make 100 lbs. of sugar. The scum which will rise on the top should be skimmed off. Caution should be observed in not allowing the syrup to boil until the skimming process is completed. Drained sugar is more valuable than dry, and to secure a good article, the greatest attention must be bestowed in granulating the syrup. The boxes or tubs for draining, should be large at the top and small at the bottom. The bottom of the tubs should be bored full of small holes, to let the molasses drain through. After it is nearly done draining the sugar may be dissolved, and the process of clarifying, granulating and draining repeated, which will give as pure a quality of sugar as the best refined West India article.

The greatest objections that are brought up against maple sugar are, that the processes made use of in preparing the sugar for market, are so rude and imperfect that it is too generally acid, and besides being charged with salts of the oxide of iron, insomuch that it ordinarily strikes a black color with tea. These objections may be removed without any comparative difficulty, as it has been proved to a clear demonstration, by the application of one ounce of clear lime-water to a gallon of maple sap, that the acidity will be completely neutralized, and the danger of the syrup adhering to the sides of the boiler totally removed. The acid so peculiar to the maple sugar, when combined with lime in the above proportion, is found to be excessively soluble in alcohol, so much so, that yellow sugar can be rendered white in a few minutes by placing it in an inverted cone, open at the top, with small holes in the bottom, and by pouring on the base of the cone a quantity of alcohol. This should filtrate through until the sugar is white; it should then be dried and redissolved in boiling water, and again evaporated until it becomes dense enough to crystalise. Then pour it into the cones again, and let it harden. By this process a very white sample of sugar may be made, and both the alcohol and acids will be thoroughly dispelled with the vapour.

We shall enter more fully into the merits of this subject in our next.

Owing to the high rate of postage upon "circulars," we have again copied the prospectus of this volume, which may be seen on the last page. It will not, however, be continued in future numbers.

IMPROVED BREEDS OF HORNED CATTLE.

The following very sensible remarks have been sent us for publication, which we heartily welcome to our columns. A proper selection of improved stock being a subject of great importance to the Canadian farmer, we shall embrace this opportunity of briefly advancing our views upon the merits of a few of the British breeds of cattle that would be the best adapted to the country.

The *Durham, or Short Horns,* are certainly a breed of cattle which possess in an eminent degree a combination of qualities adapted to the peculiar circumstances of many portions of this country, which are rarely met with in any other breeds; their splendid frames and beautifully varied colors have made them objects of general esteem; and their aptitude to fatten, and their good milking qualities, have secured them a character that stands first on the list of the improved breeds. The Durhams are essentially good graziers and medium milkers, but bad workers; where the shambles and the dairy are the only object with the breeder, they cannot be excelled; but when these two qualities are required in combination with an adaptation for the yoke, there are other breeds that would combine the three to a much greater degree. The importers of this favorite race of cattle have grossly been in fault in introducing the largest and coarsest animals, whereas the medium-sized would much better suit the long winters and hot summers of Canada. A few specimens, however, have been imported of the desired quality, and it has been fairly proved, that the progeny of the pure breed are more hardy than the native cattle. Grade Durhams are now very common in every [illegible] province; but those which may be termed pure or well bred are in the hands of a very few. So few fresh importations are made, that the breeder has much difficulty to improve the race—in fact the present stock in the country are rather on the retrograde order. The only apology for this decline is, the want of proper encouragement to the breeder. As the country gets older, and the cultivators of the soil become better informed upon these and other subjects that are equally connected with their true interests, thorough-bred animals of this and other valuable kinds will be much more highly prized and sought after than at present.

The improved North Devon cattle are beautiful in the highest degree, and their dairy qualities and aptitude to fatten, are scarcely inferior to the Durhams; but their activity at work, and hardiness, are unrivalled. It has ever been a favorite project with us, to breed the Devons for the yoke, believing that it would be decidedly more profitable for a large farmer to employ oxen of their quickness of action, docility and good temper, and also stoutness and honesty for the performance of a large share of work on the farm, than horses, as is the practice in ninety-nine cases out of a hundred. Two good Devonshire oxen will do as much work in the fields as any two horses, and the saving in keep is no inconsiderable item with a farmer who requires a number of span of horses to work his land.—For the dairy the North Devon must be acknowledged to be inferior in many respects to some other breeds. The milk is remarkably good, and the quality remunerating to the dairyman, but not so large as the Durhams and Ayrshires produce. In our humble opinion, when all things are considered, the North De-

vons are the most profitable breed of cattle to cross with the native breeds.

The *Herefordshire white-faced breed* of cattle are coming into great notoriety in England and the United States; and the breeders of this noted race of graziers, which appear to be favorites with our correspondent, are very sanguine that they will shortly bring them, by judicious crossing, to that degree of perfection, that they will excel all others in the British isles. So far as their grazing qualities go, this may prove true, but it is a well-known fact, that the cows are extremely bad milkers—so much so indeed, that they are principally used in their native county for the breeding and raising calves. Such a thing as a dairy of Herefordshire cows cannot be found.—For heavy work, such as logging, and clearing land, and the drawing of very heavy loads, the Herefordshire oxen would be admirably adapted; and although they have all the honesty and docility of the Devon ox, still their slowness of speed would lessen their value for most descriptions of farm labour.—Mr. Marshall, an English author, gives the following account of them: "The countenance pleasant, cheerful, open; the forehead broad; eye full and lively; horns bright, taper and spreading; head small; chap lean; neck long and tapering; chest deep; bosom broad and projecting forward; shoulder bone thin, flat, no way protuberant in bone, but full and mellow in flesh; quarters long and wide at the neck; rump even with the level of the back, and not drooping, nor standing high and sharp above the quarters; tail slender and neatly haired; barrel round and roomy; the carcase throughout deep and well spread; ribs broad, standing flat and close on the outer surface, forming a smooth, even barrel, the hindmost large and full of length; round bone small, snug, and not prominent;—thigh clean and regularly tapering; legs upright and short; bone below the knee and hock small; feet of middle size;—flank large; flesh every where mellow, soft, and yielding pleasantly to the touch, especially on the chine, the shoulder and the ribs; hide mellow, supple, of a middle thickness, and loose on the neck and huckle; coat neatly haired, bright and silky; color a middle red, with a bald face, characteristic of the true Herefordshire breed." This description is undoubtedly tolerably correct, and the experienced breeder will readily perceive that they are good feeders, but bad milkers. The breeders of this stock have comparatively neglected the dairy; for experience has amply proved, that the breeding qualities of a cow are materially lessened, by her being inclined to give a large quantity of milk. Good feeders are seldom good milkers, and good milkers seldom produce progeny that are kindly feeders. Herefordshire cattle may improve the native stock, but not to the extent that is supposed by our correspondent.

The *Ayrshire cattle* are unrivalled for the dairy. The excellency of a dairy cow is estimated by the quantity and quality of her milk, and the relative amount of food consumed. The quantity of milk yielded by the Ayrshire cow is, considering her size, and the small amount of food consumed, very great.—The Ayrshire cows, in addition to their good milking qualities, possess a tameness and docility of temper, a considerable hardiness and soundness of constitution, and a degree of life and spirits, that greatly enhance their value for the dairy. Persons desirous of engaging in the dairy business would find that the Ayrshires

are the most profitable stock that could be introduced in the country for that purpose. As dairying is a business of growing interest, we trust that encouragement will be given to the importation of this invaluable breed, by the agricultural societies in the province. A separate class of prizes for this particular breed, would keep the matter constantly before the public mind, and such a course we doubt not would have the effect of inducing many to breed Ayrshires that otherwise would not. For the information of the reader, we give the following extract from a Treatise by Mr. Aiton, on the Dairy Breed of Cows, which very fully portrays the shapes of this valuable breed. "Head small, but rather long and narrow at the muzzle; the eye small, but smart and lively; the horns small, clear, crooked, and the roots at considerable distance from each other; neck long and slender, tapering towards the head, and no loose skin below; shoulders thin;—fore quarters light; hind quarters large; back straight, broad behind; the joints rather loose and open; carcass deep, and *pelvis* capacious, and wide over the hips. with round fleshy buttocks; tail long and small; legs small and short, with firm joints; udder capacious, broad, square, stretching forward, and neither fleshy, low hung, nor loose; the milk veins large and prominent; teats short, all pointing outwards, and at considerable distance from each other; skin thin and loose; hair soft and woolly; the head bones, horns, and all parts of the least value, small; and the general figure compact and well proportioned." In addition to the breeds already described, we might mention, that there are many others in Great Britain that are valuable, and which would also be an improvement upon the Canadian native stock. The Pembrokeshire ox and cow are most useful and valuable animals. The Glamorganshires are equally so, and both are hardy to the extreme. It is singular, though true, that each county in Wales has a distinct race of horned cattle, and the principal proportion come up to the high description just given. The West Highland cattle are a very hardy race of animals, and easily fed—the beef commands the highest price in the London market—and we should judge that they, as well as many other breeds of Scotch cattle, would be well adapted to the long winters of Canada. Time and space forbids us entering more largely at present into the characteristic features and qualities of the many useful animals that are to be found in Britain, suffice it to say, that we hope the period is not far distant when the agricultural resources of Canada will be so well known and appreciated in every portion of the British Empire, that practical agriculturists will immigrate to this colony, and bring with them specimens of their choicest breeds of cattle; most valuable varieties of grains and seeds, and such of the most approved farming implements as would be adapted to the country; and above all, their skill in husbandry, which is a most valuable commodity in all new countries. This is a work of time, and before it can be accomplished, the inhabitants of the colony must exert their influence in bringing about a feeling of union and nationality—they must develope and increase the resources of their fine country, by giving encouragement to men of genius and enterprise—and lastly, though not least, they must study to produce every thing that is required for the wants and comforts of their population; and then, as a matter of course, every interest will be in a prosperous condition; confidence in the various enterprises of the day will be sound and unshaken both at home and abroad; and Canada then may truly be considered "the brightest gem in the British crown." When all these things shall be accomplished by the colonists themselves, we shall see thousands and tens of thousands of our intelligent and wealthy fellow subjects in Britain, making choice of this colony as a home for themselves and their families, who will bring with them all the blessings we have been anticipating, and many others not mentioned.

HEREFORDS *vs.* DURHAMS.

The attention of farmers in Canada becoming daily more awakened to the importance of an improved breed of stock, it is much to be regretted that the merits of the Herefordshire cattle have not been more extensively made known throughout this province.

I am not aware whether this subject has ever before been brought to your notice; at all events I have seen no allusion made in any of the numbers of your work to the Hereford cattle—a valuable breed, of which I may venture to assert, that more than three-fourths of the native Canadian farmers are wholly ignorant; nay, what is still more strange, a very great majority of the Yorkshire farmers in this country possess but little more acquaintance with either Herefords or Devons than the Canadians themselves. These two circumstances may, I think, be thus accounted for: The Canadian farmer makes the short horn beast his standard of perfection, from the simple fact of no other, or scarcely any other having been introduced into the country. The Yorkshireman knows, or affects to know little of any breed but his favorite Durhams: because the greater portion of the inhabitants of that county, now in Canada,—of the agriculturists I mean,—have probably never left their homesteads until they embarked for the American continent; and the chief, if not sole importers of short horned stock, having been Yorkshiremen, it follows as a necessary consequence, that the Canadians have been kept in ignorance of other valuable breeds, such as the Herefords, which I certainly rank the first, the Devons, the Sussex, the Aberdeenshire, West Highland and Ayrshire. Now, far be it from me to detract from the value of the Durhams, the most beautiful beasts perhaps in Great Britain, and whose valuable qualities it were needless to enlarge on, or from the obligations this country owes to their spirited and enterprising importers—it would be alike ridiculous and ungenerous to make such an attempt—I merely wish that the farmers of this country possessed an opportunity of testing the relative advantages of the Durhams and Herefords, and I am satisfied, that in a short time we should see the other as much prized and sought after as the former now are. I entertain a partiality for Hereford cattle, as being better adapted to this country than the Durhams on these points, that they are more hardy—that they are more easily kept in condition, and will fatten on less than the Durhams, at the same time that they can compete in weight with them—that as oxen they are more serviceable for draught, though inferior in this respect to the Devons—and that the Hereford cow is little inferior to the Durham in milking properties.

This, sir, is not mere hazardous assertion; any person who has visited the Midland Counties of England, where both breeds are to be met with, can testify to its accuracy; any one who has seen the annual Smithfield cattle shows, may have remarked the general superiority of the Herefordshire cattle.

As bare assertion, however, from an unknown or anonymous correspondent cannot be expected to carry much weight with your readers, I must beg to trespass so long on your pages and their patience, as will suffice for adducing a little documentary evidence in favour of the breed whose cause I am advocating, claiming a moment's discussion to state that I am no breeder—except as all farmers breed—of Hereford or any other stock, and have therefore no interested views in the matter. At the Smithfield cattle show at Christmas, 1841, (I quote from the *Farmers' Magazine* now before me) the Herefords gained the following premiums: 2d and 3d premiums in class No. 1; 3d premium in class No, 2; both the prizes in class No. 3; in class No. 5 the prizes were gained by beasts of the Durham and Hereford cross; the silver medal for the best "extra stock" was awarded to a Hereford and Durham heifer, and three other Herefords were highly commended by the judges. By the way, this practice of "commendation" by the judges for some of the stock exhibited that do not take prizes, has not, I apprehend, been hitherto adopted at our agricultural meetings, not at least in Canada West.

In 1842, at the same show, the first prize of twenty pounds and the silver medal, were awarded to a Hereford three years and eleven and a half months old ox. In class No. 2, the first prize of thirty pounds and a silver medal were awarded to a four years and ten months old Hereford ox. Touching this annual I find the following note: "His sire, a celebrated bull, named "Gold-finder," and also his dam, were bred by Mr. P. Perry, near Leominster in Herefordshire, and were sold together to the Duke of Bedford for one thousand guineas. The Herefords at this show gained eight of the premiums. Of the exhibition at Smithfield in 1843, I have no detailed report by me; but there is the following notice relating to it in a London paper of December in that year: "The exhibition was said by those who may be considered good judges, to be the best ever seen. Mr. Senior of Broughton, near Aylesbury, Buckinghamshire, exhibited twenty five fine Hereford and Sussex beasts that were the objects of general admiration. These wonderful creatures, five years old, were estimated to weigh on an average 250 stones each." Live weight 3500 lbs., dead weight 2000 lbs.

On looking back over some old numbers of the Farmers' Magazine, I met with a correspondence between Mr. Price, the celebrated Hereford breeder, and Mr. Bates of Kirkleavington, in Yorkshire, one of the first, if not the most eminent breeder of short horns in that county. Mr. Price had published a challenge of one hundred pounds, offering to show a Hereford bull and twenty Hereford cows against the same number of any other breed in the United Kingdom. This challenge was replied to by Mr. Bates, who declined the wager, but offered to shew his stock of short horns against Mr. Price's Herefords. Mr. Bates in his reply makes the following remark: "I consider now, and have for 40 years been convinced, that *the very best short horns, which are only a few,* are capable of improving all other breeds of cattle in the United Kingdom, as well as of the ordinary short horns *which are far from a good breed, and inferior to the Herefords.*"

The facts quoted above are, I trust, "confirmation strong" of the opinion I have hazarded as to the valuable qualities of the Hereford cattle; were further substantiated evidence necessary, I could easily furnish it, but I will not trespass longer on your time. Let me only in conclusion add, that though I do not mean to deny that the Durhams may, in individual instances, attain a greater weight than the Herefords, yet that it is an established fact, that taken in the aggregate the latter, when brought into competition with the former, carry off the greater number of prizes, and I am convinced, that being more generally serviceable animals, they are better suited to this country

REPEAL OF THE BRITISH CORN LAWS.

The following communication is from the pen of a staunch friend of Canadian interests, who has on former occasions favored the readers of the *Cultivator* with his views upon the subject of agricultural protection. We agree with most of his deductions, but cannot go so far as to admit, that if the British Corn Laws be repealed, or if the colonists and foreigners are placed upon the same footing in the British markets, that ruin to the former must inevitably follow. We have ever been advocates of agricultural protection, and shall still continue to advocate this principle consistently we hope; but it is carrying the matter too far to assert that the Canadian farmers —who are lords of the rich and fertile lands they cultivate—will be ruined if a preference is not given them in the admission of their produce in the British markets. Only a few years since Canada was a non-exporting country in corn and provisions, and at the same period her prosperity apparently was at its zenith. The people of all classes have of late been acquiring habits of extravagance and improvidence, and instead of studying to produce all the necessaries and conveniences of life that the country is adapted to afford, they have depended upon a foreign supply, and the legitimate consequences of this injudicious policy obviously are,—the country is deeply involved in misery and poverty—crime and litigation stalk our fertile land to an unusual extent—and the real and fictitious capital, and *bona fide* surplus produce of the country are all absorbed in foreign luxuries, most of which we could either do without, or produce with remunerating profits to the operative. With this wretched state of things staring us in the face, is it to be wondered that our friend exhibits such a desire to attract the attention of his fellow-countrymen to the yawning gulph of poverty that stands ready to destroy their brightest prospects? The means to be adopted to establish the prosperity of the country upon a sound basis, is a question of the gravest importance, and should be discussed with the utmost candour and caution. The columns of the *Cultivator* shall be most willingly thrown open to any able correspondent who may favour us with a well-digested essay or communication, couched in language suitable to a subject of so much delicacy and national importance. It must be remembered that we are colonists, and as such must act, if we act at all upon this matter, with reference to the interests of our parent country, as well as our own.—Nevertheless, we hold it to be one of the first laws of nature to look to our own interests first, and then to attend to our other duties and obligations in the order of the importance and claims they may have upon our attention. To apply this mode of reasoning, which we humbly believe to be the true one, to our obligations as colonists, it may be observed, that the first thing we should do is, to improve and develope the resources of the colony, and if practicable, produce as many of the wants and luxuries of life as can be profitably yielded in the country; and what we really want to import should be purchased with our surplus produce from those who are willing to receive it upon the most liberal terms. Our mother country has most liberally thrown open her markets to our surplus produce, and we in return receive her manufactures upon an equivalent footing.

This mode of transacting business appears most beautiful in theory, especially when it is conducted between two great members of the same family; but when the matter becomes closely investigated, it will be found that the advantages that the colonists reap from the free admission of corn into the British markets, is not sufficient to counterbalance the evil of importing more than we are able to pay. At present the whole country may be said to be at the mercy of the importing merchants, and lawyers; and how long this state of things is to last, it is difficult to divine; but one thing is certain, that so long as it does exist, we as colonists may neither hope to prosper nor have our country or ourselves respected by those with whom we transact business. Let the people of Canada for once resolve in their might, that they will curtail a thousand and one extravagant notions that they have acquired, whilst they fancied they were basking in the sunshine of prosperity, but in reality were shining in borrowed plumes, and we venture to predict, that all will be well. In curtailing expenses, we do not mean that the people are to degrade themselves and their high and noble professions, but rather that they should throw off their gaudy trappings, and let the useful take the place of the ornamental. We have no desire to occupy the columns of our paper with our own views upon this subject to the exclusion of others, and would for the present conclude by copying the following very pertinent remarks from our able cotemporary the *Maine Farmer*, which go to shew, in a most conclusive manner, that *"the pride of the eye is a curse to a nation:"*—

THE "PRIDE OF THE EYE," A CURSE TO THE NATION.

"The pride of the eye" was one of the fundamental evils among mankind during the days of the Apostles, and the prevalence of it at the present day proves that poor human nature is the same now as it was then. "The pride of the eye"—the desire to "*show out*"—"to look fine," and to "*cut a dash*" is one of the principal evils of the present day. An evil which, without taking into view the troubles that it brings upon us in a moral sense, produces temporal ills enough to induce, we should think, persons of common sense to pay much less regard to it than is done. Many, too many among the productive classes, and indeed among the consuming classes too, seem to think that it is the exterior rather than the interior which forms the character—that it is the *modicum of fine twined* linen, silk and broadcloth upon the body; the style of the beaver upon the upper, and the *quantum* of Day & Martin upon the lower extremities that makes the man. We grieve to say that in too many instances this is the case. That the mind—the inner man—*the intellect* and the soul which lives forever, which prompts to action here, which give life and thought and utterance—which raises man above the beasts of the field, is shamefully neglected. Every one should strive to be decent in his appearance and in his equipage; but all, especially farmers, should study into the *fitness of things*, and make all their dress, their apparatus and expense accord with that. This is the true standard of beauty, and ought to be the true standard and guide of fashion. The fitness of things to the uses and purposes for which they were designed, ought to be the rule, and not whether it will be finer, or more costly, or of a newer style, or more shining and dazzling than your neighbours. Utility rather than the "pride of the eye" should be the study. If this were followed we should see more of native beauty in the person than artificial and expensive foreign decorations. More of the plain, substantial manufactures of the farmer's family, than tawdry finery from abroad. We may be mistaken, but it really seems to us that we are verging too fast to that point, that rock upon which all nations have split, viz: Luxury and effeminacy. It is a solemn and startling fact, that the great mass of our population are neither so hardy nor so healthy as they were fifty years ago. The changes in the habits and customs have brought with them a new set of diseases, and a corresponding amount of debility and weakness. Who ever heard of people dying of dyspepsia in those times? and yet it is now one of the most common disorders at the present day. The "pride of the eye" has more to do with it than many are aware. In olden times people were not afraid of the sun or the air. They were not ashamed to be seen in coarse, substantial homespun dress, suited to the season. They were not ashamed to harden the hand with toil, nor darken the cheek by the exposure to the rays of the sun. They were not ashamed to be caught eating the coarse fare produced upon their own farms. There was no sighing if their brown-bread loaf did not rival in whiteness and delicacy the superfine flour of modern days, nor any anxi-

ety to exchange the *samp* and the *hominy* for the rice of the Southern plantations. They were not ashamed of toil nor athletic exercises, and a corresponding proportion of health, and we dare say a greater amount of happiness rewarded them accordingly. We are not among the prosers nor *croakers*. We wish to see every one flourish—we wish to see the country prosper—we wish to see the nation progress to its zenith of greatness, but to do this we must follow other dictates than those of mere pride which exults in tinsel, in gaudy trappings, in empty show, and attend more to the substantials—the solid comforts which strengthen and make permanent. Let the farmers look to themselves—build up themselves—wear the cloth of their own manufacture in preference to that from across the Atlantic. Study to produce all the necessaries of life upon their farms, and be not ashamed to sustain themselves thereby, rather than exchange their produce for more costly viands from abroad. Let them put themselves in the front rank of reform in this respect, with common sense for their guide and moral courage for their shield, and all may yet be well."

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(*For the Cultivator.*)

Whatever may be the ultimate result of the exertions of the Anti-Corn Law League, it is evident that the tendency of the British Imperial Legislation is towards free trade in corn and provisions especially. Suppose then that all foreign corn were admitted into the British ports on the same scale as Canadian corn and provisions, what would be the result to the British American Provinces? Answer, Ruin. From this ruin, what are the means most likely on their part to re-establish the prosperity of the country? Whoever answers this question the best, is at least worthy of room for communication in your valuable paper. Prepare for the evil day ere it be yet too nigh; and with a view to that preparation, elicit through your highly useful paper the greatest amount of sound practical information that can be obtained. The agriculturists of this province cannot depend on the press in general on matters of this kind; as a proof of this, look into the files of almost every paper in the province in the summer of 1840, and you will find them up in arms against levying any duty on American produce; but after one year's operation of the law imposing that duty, see the benefit to the revenue, and at the same time the cheapness and plenty in our markets.

This subject is as fertile and susceptible of improvement as the lands of Canada, and its discussion would be acceptable to your subscribers in general and to your correspondent. A. C.

NEWMARKET FARMERS' CLUBS.

We are happy to inform the readers of the *Cultivator*, that this institution promises to be one of the most useful local associations extant in the province. The members meet weekly, to discuss a subject previously agreed upon; and considering the infancy of the institution, the limited opportunities that the farmers have had to acquire a general knowledge of the principles which govern the several branches of their noble profession, the display of eloquence and sound practical reasoning which have been exhibited at the four meetings which have already taken place, have all clearly given evidence of the adaptation of this class of associations to the circumstances of the rural population. Those meetings have been very numerously attended, and a lively interest taken in the discussions by the numerous speakers, who were mostly practical farmers. The principal actors upon the stage are the junior farmers—those who have had a better opportunity of informing their minds upon matters, such as were brought under discussion—than have their forefathers, the pioneers of the country. The subject for the next evening's discussion is, "What is the most profitable method of cultivating land for the wheat crop?"—This subject is of such a general interest to the country, that we shall take notes from the speeches, which shall be published for the benefit of the readers of the *Cultivator*. Possibly in some instances entire speeches may be reported, or at least such portions of them as may be considered useful to the general reader.

Our friends at a distance will please bear in mind that a model institution will be established when the Newmarket Farmers' Club gets fully into operation; and it will be to their interests if they aid in organizing and sustaining similar institutions within their several localities. The proceedings of this institution shall in the main be published—its list of books and its rules and regulations made known to the public—and in this way others may be induced to follow the footsteps of the founders of the Newmarket Farmers' and Mechanics' Institute and Library.

MODEL FARMS.

This class of institutions for instructing the youth in the mysteries of husbandry, is becoming every day more popular with those who appreciate the benefits that would flow to the community were the cultivators of the soil to become thoroughly acquainted with the science and practice of agriculture. It is not our purpose at this time to detail the many advantages that would result to the people of this colony were model farms properly established, and carried out in conformity with the spirit and intentions of these associations; we would merely mention the fact, that such institutions are established, under the patronage of government, in several of the best agricultural countries in the old world, and their benefits are highly extolled by all who have witnessed their operations. The leading agriculturists in the United States, having heard of the progress that agricultural improvement has made through the agency of Agricultural Schools and Model Farms in Europe, appear unanimous in opinion that similar steps must be taken to give a stimulus to improvement in their own country, and accordingly the subject is being agitated in that country with much zeal. To judge of the future from the present prospects, we are led to suppose that Model Farms and Agricultural Colleges will be liberally chartered in the United States, under the patronage of the several State Governments. We shall watch the progress of these movements with much interest, and shall be happy at all times to render any assistance in our power, when required to do so, in encouraging the establishment of similar institutions in this province. The most remarkable instance of genuine benevolence that we have seen for some time upon record, transpired in England in the autumn of 1838. James Smithson, of London, England, bequeathed $508-318 to the United States Government, which was paid into the Treasury, on December 3d, 1838. The interest accruing from this benevolent Englishman's legacy, is to be invested in a model farm and institution for the diffusion of useful knowledge among men, under the name of the "Smithsonian Institution." During the present Session of Congress, some action will no doubt be taken in the investment of the accumulated interest, in conformity with the philanthropic views of the donor, which has already amounted to the very handsome sum of *one hundred and eighty two thousand dollars*. We cannot refrain from lamenting that Mr. Smithson should have been induced to have granted this large sum of money to a foreign government, when aid was so much required to give a stimulus to agricultural improvement in the British North American Colonies. It was most probably the case, that Mr. Smithson was not aware that British America is as susceptible of as high and profitable a state of agricultural improvement as the United States of America. Although the people of these colonies may not receive much direct benefit from the vigorous measures which are being adopted in the United States, to improve the condition of their agriculture, still we are of opinion, that the indirect influence will be powerfully felt.

It is opposed to common sense to suppose that the highly favored inhabitants of the British American Colonies should stand still in matters of so great importance, when all around are moving forward with a rapidity that the people of no other generation ever witnessed.—Our motto should be "*onward*," if we ever expect to arrive at that high point of intellectual refinement which characterises the people of those countries which are in advance of us in agricultural improvement.

It has given us great pleasure to observe the very favorable manner in which the remarks upon manufactures have been received by the public, which have been published from time to time in the *Cultivator;* and the following communication upon the same subject, coming as it does from a talented practical farmer, and an officer of an agricultural society, gives us an increased degree of confidence in urging the claims of the manufacturing interests upon the serious attention of the Canadian agriculturists.—What has been said in our columns in favour of the manufacturer, has been thrown out as a feeler, to ascertain whether any considerable proportion of our population would acquiesce with the views we entertain upon this most important subject. We were told from a very respectable quarter, that if we advocated, to any extent, the establishment of manufactories in this province, we would get trouble, without accomplishing any benefit for ourselves or the country; we, however, concluded, independent of this advice, that the duty we owe to our country and our fellow man, forbade either silence or a feeble advocacy of this great question; and we have therefore resolved to lay before our numerous and influential readers, our views upon domestic manufactures in full, as well as much valuable information that we shall collect from various sources, and original correspondence, upon the same subject, without regard to what others may say of the propriety of this course.

The British North American Colonies will ever be valuable customers to the British manufacturers, but it is preposterous to suppose that the present state of things will or can long exist; upon examination it will be found, that one of the principal causes of the great scarcity of money in British America is, that we import double the quantity of products that is actually necessary, and the consequence is, that nearly the whole of the banking capital is employed in commerce, instead of being invested in branches of industry that would produce wealth in the country. Very many of the articles that are at present imported, could be *manufactured or produced in the country*, giving a return of large and highly remunerating profits to the producers, and at the same time be afforded to the consumer at a much cheaper rate than under existing circumstances.

Our friend "B. A." will please accept our thanks for the able and clear manner in which he has described the Esquesing manufactory; and any future communications upon the prosperity of the manufacturing and agricultural classes from his able pen, shall receive a hearty welcome to our columns. We should be happy to hear from our friends in other portions of the province, of the success of these as well as all other branches of industry; by that means the *Cultivator* would be made a medium of communication between the various producers of wealth, thus opening out to view new channels for the investment and acquisition of capital, which would ultimately have the effect of improving the condition of all classes of our mixed population:

WOOLLEN MANUFACTORY OF ESQUESING.

I have read with great satisfaction your sensible remarks on Canadian manufactures, and on the great benefits which will accrue to the agricultural population of this favoured country by the creation of markets within itself—benefits which can be alone obtained by giving the preference to domestic manufactures.

As you invite correspondents to give their *sentiments on all subjects which may interest the* farmer, I shall offer a few remarks on the woollen manufactory of Esquesing, trusting that

these remarks may induce some more competent person to address you on the same subject.

The township of Esquesing, in the Gore District, is situated to the north of Trafalgar, and is settled by an active, industrious race of men, who have cleared away the howling forest in an incredibly short space of time, and filled the township with valuable improvements. If any person acquainted with the township thirty years ago, when it was owned and occupied by the Red man, were to travel through it now, he could not fail to admire the industry and perseverance, which, with the blessing of an overruling Providence, have enabled the white man to make such mighty changes. He could not fail to admire the highly cultivated farms which meet his view on every side, and the many flourishing villages which are quickly rising into importance. In one of these villages (Georgetown) situated on the west branch of the river Credit, and about twenty miles from the village of Oakville, and thirty-five miles from the town of Hamilton, is the woollen factory of the Messrs. Barber & Brothers. On approaching this village, the most prominent objects presented to the view of the traveller are, the buildings in which the Messrs. Barber ply their thriving occupation; these buildings are painted red, of which the principal one is abont eighty-four feet long, with a wing of thirty-six feet, the whole being in the shape of an L. On entering this building, it is impossible not to remark the admirable set of manufacturing machines, (supposed to be the largest in the Province) which are composed of a double breaker, single machine and condensor, with a jack of one hundred and fifty spindles to match. This set of machinery was made by Mr. Christopher Elliott, of the Phœnix Foundry in the City of Toronto, and is considered superior to any hitherto imported from the United States. On passing this machinery, the eye immediately rests upon another set of nearly the same size, which is composed of a single breaker, double machine and condensor, with one hundred and twenty spindle jinnys to match. The condensor belonging to this set is of a different construction to that belonging to the first, and would lead an individual unacquainted with the business to suppose it was employed in a very different process. One thousand pounds of yarn can be easily manufactured each week with this machinery.

The above fills up the second floor of the main building, but the "Connoisseur" who admires the "fairer portion of creation," will take an opportunity to explore the large room to the left of the entrance, being in the wing above mentioned; in this room there are seven power-looms, each of which is tended by a young maiden, whose neat and tidy dress, and pleasing healthy looks, give ample evidence of her industry and respectability. These power-looms speak volumes in favor of the industry and intelligence of Messrs. Barber, for of the seven, only one was purchased, the other six having been made by themselves at spare times; the accuracy with which they work is truly astonishing, the spring throwing the shuttle and sticking up the lathe with as much regularity as if performed by the hand of an experienced Yorkshire weaver. Three of these looms are occupied in weaving plain cloth, three in weaving twilled cloth, and one in weaving sattinet; and amongst their other good qualities is that of enabling the manufacturer to make the cloth of any desired thickness, by simply adjusting the weights attached to them.

In the third story is placed the machinery for custom work, consisting of three double and one single carding machines; here also is another condensor with a jinny of sixty-four spindles to match: this latter machinery is used in spinning blanket and carpet yarn; a branch of woollen manufacture in which the Messrs. Barber have been the first to engage, and in which their success has been deservedly great.

In the lower room, machinery of the very best construction is employed in finishing the cloth, and in carrying on the process of scouring, fulling, knapping, shearing, and dressing. And then again another loom presents itself, which is used solely for the purpose of manufacturing blankets of the largest size.

I have now given you, sir, an imperfect sketch of the machinery in this celebrated establishment, in which between thirty and forty individuals find constant employment; and in which a very large quantity of most excellent cloth, sattinet, and carpets are yearly manufactured, besides blankets, which have been pronounced by some of the largest importing merchants in Hamilton, to be much superior to those imported from Scotland, and to be nearly equal in quality to the best English blankets. I have already written too long to admit of my attempting a further description of these articles; but I should not do

justice to my own feelings did I close this letter without testifying to the fair and liberal way of dealing adopted by the Messrs. Barber, and to the uniformly kind and hospitable treatment experienced by all who take wool to their factory.

Hamilton, December, 1844. B. A.

CULTIVATION OF FLAX IN IRELAND.

Great improvement has of late been made in Ireland in the cultivation and preparation of the flax crop for market; this improvement has chiefly been brought about through the instrumentality of an association, entitled "The Flax improvement Society of Ireland," which has been in operation only four years. The vigilancy of this association, and the great results which have been brought about through those exertions, in the short period alluded to, have had an additional effect of strengthening the opinion which we have so repeatedly expressed in favour of a Provincial Agricultural Association. If a score of individuals could be found in each District in Canada, who would liberally come forward and contribute their *dollars* to aid in establishing such an institution, we would gladly join them in endeavoring to bring about in Canada similar results to those which we are about reporting. A Canadian Provincial Agricultural Society would have for its objects the encouragement of every branch of industry, and would consequently have a claim for support upon every patriotic individual in the province. Every other agricultural country but this has its National Agricultural Improvement Society, and in order that we should keep pace with others, it is absolutely necessary that similar means should be adopted.

Canadian farmers, and friends of Canadian agricultural improvement, read the following facts, which we extract from the fourth annual report of the Secretary of the Irish Flax Improvement Society! and then please inform us, (if by letter *post-paid,*) whether the institution which we have been so zealously recommending for your benefit during the past three years, would not be productive of great and lasting advantages to this country, if the intelligent and wealthy portion of the people would cordially unite in promoting the objects and improvements which such associations are intended to encourage:—

"The estimated quantity of Flax-seed sown in Ireland, in the spring of this year, is 40,886 hogsheads, of seven bushels each; the quantity in 1843 was 37,400. On the estimate that each hogshead would sow three statute acres, the quantity of land under the crop in 1843 was 112,200 acres; and this year (1844) is 122,688 acres. Supposing that each acre will give an average produce of 6 cwt. of scutched Flax, the entire produce of Irish Flax, last year, was 36,465 tons, and this year 39,611 tons. Estimating it at an average value of £45 per ton, this additional quantity would bring £141, 570. The quantity of Flax grown in Ireland in 1841, the first year of the Society's labours, was about 25,000 tons; this year (1844) it is, in round numbers. 40,000 tons. There has thus been an increase, during the past year of 15,000 tons, which, at the same estimate of £45 per ton, would amount to £675,000. The improvements in quality, during this period, so evident to all the consumers of Flax, cannot have been less than was estimated last year, viz., equal to £10 per ton, on one-fourth of the quantity grown. This would be £100,000 more, which, added to the £675,000 formerly given for the increase in quantity, makes, in all, £775,000—a sum which would formerly have been paid, in bullion, to foreigners, but is now circulated among the farmers and labourers of Ireland. In consequence of the care now bestowed, both on the growth and preparation of Irish Flax, its character is advancing: and your committee are now credibly informed that the yarns spun from Irish Flax are considered, by manufacturers, as affording a better and more durable material for their fabrics, than those spun from the generality of foreign Flax."

Saving of Flax-seed.—"Your committee have been instrumental in bringing prominently before the farmers the great utility of Flax-seed as food for all kinds of live stock. A prejudice had formerly prevailed against saving the seed, from an idea that it would injure the quality of the fibre. Almost everywhere through the country, this season, a large portion of the crop of seed has been saved, and the Flax fibre has not been at all deteriorated when the operation was performed with care. Your committee have reason to be-

lieve that fully one-sixth of the Flax grown in Ireland, this season, has been rippled. The seed has either been used for feeding, or has been sold for the oil-mills; and the total value of the above named quantity, reckoning it at £3 to £4 per acre, cannot be estimated at less than £60,000 to £80,000. Several large landed proprietors have, at great cost, erected scutch-mills on their estates, for the benefit of their tenantry, containing the most approved machinery."

Who can deny, after reading this report, that agricultural associations, if conducted upon sound principles, are not productive of permanent benefits to the country? The results of this single association are truly astonishing, especially to be brought about at a period when the linen trade was on the wane, owing to the immense competition of cotton goods in the market. We may be called an enthusiast, but notwithstanding the opinions of others in relation to this matter, we feel much confidence in asserting that, if the Government of Canada would grant the sum of £5000, per annum, to aid in establishing a Provincial Association, that sum, with what could be raised by subscription, donations, &c., would, if expended judiciously, have the effect of encreasing the wealth of the province to at least £200,000 per annum. The local agricultural institutions actually require an institution composed of the wealth and intelligence of their class, to which they may look for example and information upon the various branches of improved husbandry, with which it is not expected the people of this country are familiarly acquainted. We recommend the friends of agricultural improvement in Canada, to forthwith resolve to make this a general year of effort in the cause. It is by individual exertion, concentrated into one common focus, that our country is to be redeemed from the disgraceful debt which hangs over our head. The way to achieve the laurels laid in store for the Canadian farmers, will be most lucidly pointed out in the present volume of this journal; and it will be for those who are equally interested in this matter with ourselves, to decide whether they will lend their assistance to bring about the changes in the agriculture of this country which are necessary to entitle it to general respect. Canada has great resources for the production of wealth, and in order to make them productive of any advantages they must be developed.

HOME DISTRICT AGRICULTURAL SOCIETY.

We beg to inform the farmers of the Home District, that the *Annual Meeting* of the Home District Agricultural Society will take place at the Court House, in the City of Toronto, upon Wednesday, the 12th inst., at twelve o'clock noon, for the purpose of appointing Officers for the ensuing year. The officers and members of the Township Branch Societies in the District, as well as those of the District Society, are most respectfully invited to attend, as matters of a highly importart nature to the agricultural interests will be brought before the meeting. We trust that those friendly to the general organization of Township Soeieties will attend, and be prepared to submit their views in relation to the manner in in which these societies should be connected with the parent society, and any other suggestions that would be calculated to promote the welfare of agricultural improvement in this Province. As the propriety of memorialising government upon the very important subject of establishing a Provincial Agricultural Association will in all probability be discussed, we hope that all friendly to the organization of such an institution, as well as the friends in general of Canadian agricultural improvements will make it convenient to attend.

Guinea Goose.—This is the largest of the goose tribe which has fallen under our notice; it is of the size of the swan, and it often weighs more than 25 pounds. We have now in our possession one pair which we purchased for a gentleman in South Carolina, which will weigh in common ordinary condition, over 20 pounds each. We once owned a gander that weighed 24 pounds. They are a noble bird, quite ornamental about the premises, and add much to the scenery, particularly if a sheet of water be near. When floating on its surface they have a stately majestic appearance, and in their movements they much resemble the swan. They have a low, hollow, coarse voice, unlike that of any other variety.—*Bement Poulterer's Comp.*

AGRICULTURAL EDUCATION.

As some little degree of system has at last been brought to bear in the management of the common schools of this country, we feel it a duty we owe the agricultural classes, to offer a few suggestions in relation to some improvements which, if introduced into the schools, would add greatly to their usefulness. Farmers and mechanics should at least adopt the necessary steps to give their sons a taste for rural and mechanical pursuits. Their youthful mind should be early taught to reverence and appreciate the independence of the producing, in comparison with that of the mercantile and professional classes. We are unquestionably an agricultural people, and should certainly bestow that time and attention in acquiring a knowledge of its principles as its importance merits. The books at present in use in the common schools are filled with political speeches, tales, fables, and passages from the ancient authors, which, to say the least of their merits, are unadapted to the tastes and circumstances of the people of the present age. There should certainly be some practical information conveyed to the young mind, of such a character, that would inspire a reverence and attachment to the particular pursuits which those youths are destined to practise. There is too little interest taken by the colonists generally on this very important subject; and strange to say, the farmers, the men who see daily the great advantages the educated enjoy, are among those who exhibit the greatest degree of apathy in giving their sons a liberal practical education. If the same amount of zeal was manifested by the heads of families in properly educating their children, as is exhibited in amassing wealth to be divided among those children, those strictures of ours would then be quite superfluous. It is gravely argued by some, that a good education disqualifies a man from being an industrious and successful farmer. This is undoubtedly true in some instances where the moral training has been totally neglected; but when we speak of the practically educated man, we do not mean the mere book-worm, but the man whose hands, body, and heart is educated, as well as the mind. If it were necessary to adduce evidence, or living testimony of the benefits of a well educated agricultural community, we could point to Scotland. In that country an established system of general education has been in operation for a number of centuries, and it may be said that the great bulk of the population of that devoted country are morally and liberally educated. A more industrious, and at the same time, intelligent nation of people, cannot be found; and although that country is among the least favoured for agricultural purposes in Europe, we find that the wages of agricultural labourers are higher, and that higher rents are paid, and greater profits made from the land than in any other country in Europe. An instance may be cited in this our own day, where a Scotch tenant farmer had made £100-000; and scores, where from £10,000 to £20,000 each had been made upon highly rented land. The best farmers and gardeners of England and America employ Scotch foremen to manage, or take the lead in managing their farms and gardens,—and to what must this success and preference be ascribed? Simply, in our opinion, to the high state of their educational institutions. There, the liberally educated and industrious man, although poor in regard to this world's goods, is respected, and a high premium is of-

fered in payment for his services and qualifications.

To raise the people of this country to the same high standard as the one we have quoted, it is absolutely necessary that more attention should be paid to the instruction of our youth. Agriculture should be taught in our schools, and for this object books should be introduced of a suitable character, to inspire the young with a correct taste for rural pursuits. In teaching a child how to read, would it not be a decided improvement upon the old system, to instruct him in ideas that he could subsequently practice, in the branch of business that he in all probability will follow? As soon as the farmers' sons are taught to read, they should be regularly and properly instructed in the following branches:—

The culture and improvement of the soil; the rearing and improvement of stock; and the improvements of agricultural implements. The style and character of the text books, upon these several branches, must be strictly adapted to the circumstances and tastes of the rural population of this country. Of course the principles of chemistry, anatomy, and mechanics, must embrace a portion of those studies; but to be productive of the greatest amount of good, they must be treated in the most easy and familiar style. These works might be had, if liberal premiums were offered by a Provincial Agricultural Society, or Board of Agriculture, if we were blessed with either of these useful institutions; and even without such encouragement, they might be had, if only the agriculturists would evince a disposition in favour of such means for the improvement of their sons. It should be remembered that "knowledge is power," and this will especially apply to the farmer. Nothing would have a more direct influence and tendency to improve agriculture and its reputation, than a more general knowledge among farmers, of those sciences that explain its principles and their operations. The man who understands philosophically and mechanically the operations in which he is employed, will perform them with greater ease and accuracy than one who has only a mechanical acquaintance with them. Our farmers ought to be as well educated as any other class,—they are lords of the land they cultivate,—and should at least have as much voice in the Legislative Assemblies of our country, in proportion to their population, as the other classes. And why, we would ask, is this not the case? Because, and only because they are ignorant. And thus they as a class, sink into comparative insignificance, and suffer themselves to be despised by those who, above all others, should respect them.

The agriculturist builds up the foundation of all society, and his honesty, labour and frugality in a great measure sustains them. No class can live independently without him; and why should he not occupy that rank in society that his useful and honorable pursuits so fully entitle him? We see no good reason why the cultivator of the soil should any longer exhibit an apathy upon a matter which is of such vital importance to themselves and their families, and may we not add, to their country. Let the farmers who have intelligence and discrimination enough to appreciate the advantages of which we have been speaking, endeavour to arouse from the fatal lethargy in which they are enveloped, and reclaim the dignity which they have lost as a class, by their own neglect, by giving their sons that measure of

practical instruction which will qualify them to perform the duties which properly belong to their noble profession, with credit; and to fill any office of honour or emolument that may be within the gift of the crown or the people. To commence in this great work of reform, a higher standard must be placed upon the qualifications of common school teachers, and the branches taught must be of such a nature, as will inspire in the minds of the youth a reverential devotion to the occupation of their fathers. We trust that these remarks may have the desired effect upon the minds of such of the farmers of Canada as may have the opportunity to read them. Our object is to elevate the character of the noblest of all pursuits, and the one in which nine-tenths of the population are directly engaged. We can, however, do nothing, unless those whom we intend to benefit, will favor us by reading and practising what we have advanced for their especial advantage. We hope for the best, and trust that the good sense of the people will be directed to the blessings that would result to the rising generation, if they would give that attention to their education, as its importance would seem upon a close examination to justify.

Township of York Agricultural Society.—A Monthly Meeting of this Association will take place at Duncan's Inn, York Mills, on the 22nd instant, at six o'clock precisely. The subject for the evening's discussion is, "What is the proper period, and the best method of sowing down land with the cultivated grasses?" The Secretary of this Institution, informs us, that there has lately been a great increase in the society's funds, and that their exertions are likely to be productive of great and permanent benefits to the agriculturist within their circle of influence.

MANURING WITH LIME.

The duration of the action of lime manure, depends, first, on the quantity used, and on several other circumstances, to be alluded to. If the amount of lime is calculated of which the soil is deprived by one harvest, it will be found that 500 pounds per acre should be sufficient for many years; still the plants cannot absorb all the lime which has been brought on a field, because they do not penetrate with their roots every particle of earth; and a great part of the lime is nearly lost to the plants by its combining with the hydrated silica contained in the soil, forming a compound insoluble water. Another portion is dissolved by the rain and snow-water, so much, viz: as has combined with humic and carbonic acids into salts, which are soluble in water. The silicated lime, it is true, is again in its turn decomposed by the carbonic and humic acids of the soil, whereby humic and carbonate of lime will be formed: but this always takes place so slowly, that the plants cannot derive much benefit from it. These processes, therefore, fully explain why the manuring with lime needs to be repeated, and why its effects, although (by using large quantities) it may last 20 or 30 years, will not last with small ones more than 6 or 7 years. It is, moreover, to be considered that the salts which are produced in the soil by manuring with lime, are generally difficultly soluble in water, and consequently that the soil must contain a considerable quantity of them, if they are to improve the growth of plants or aid their nourishment.

The ways in which lime is used as manure, are different. Sometimes, small heaps are formed of it on a field previously plowed; these heaps are covered very closely, with a layer of earth, two or three inches thick, and the lime was to remain in that state until it has become slacked. These heaps are afterwards well worked up with the soil above and beneath; the lime is carefully spread, then harrowed and ploughed under about two inches deep; the land is then harrowed; then another ploughing, somewhat deeper than the first is performed; and the whole operation is concluded by harrowing. Although this process is very simple, and requires little manual labour it is not to be doubted that it is still imperfect. In the first place, as the heap soon becomes cracked by the swelling of the lime, it will not be protected by the earth from the influence of the atmospheric air, which will cause it to loose its caustic quality; and consequently mixed with the soil, it will not act so powerfully on the organic matter and the coal of humus contained in it.

Another way of using lime is to throw it into one of more large heaps, and to pour so much water upon it as to entirely slack it, and convert it at once into powder, Three pounds of burnt lime will require for that purpose one pound of water; i. e. the two combine chemically in that proportion, and become converted into a dry, very fine powder. On the other hand, not too much water is to be taken, else a pap will be produced which cannot be spread about, and which

when dry, will form a hard mortar. If some lumps of lime should not be slacked, they are to be thrown aside, when the lime-dust is conveyed on the fields, and these again sprinkled over with water, and if they should not then fall to pieces, they are either not pure lime, or have not been sufficiently burnt, which can be easily ascertained by trying them with a little acid. The main object after the lime has been slacked, is to spread it as soon as possible over the field, and to proceed with it as stated before; because everything depends on the lime coming in as caustic state as what we expect.

The third method of manuring with lime is the following:—It is placed in conical heaps in alternate layers with vegetable mould, taking three or four parts of earth to one of lime, over which the necessary quantity of water is afterwards poured; the heap is then well covered, either with turf or straw, over which some earth is to be thrown, and the whole left quiet for three or four weeks. Afterwards, the lime, which by this time has been converted into powder, and the vegetable mould are well worked up, and then carried on the field. There is no doubt that this method, provided earth be at hand, is to be preferred to any other; as all will remain caustic, and will act in the heap very powerfully on the coal of humus. The greatest amount of labour it occasions, is fully repaid by the produce obtained, as a considerable quantity of humate of lime is produced, which we shall see hereafter, is a superior manure. Vegetable mould, however, is to be had everywhere.

In some countries the slaked lime-powder is strewed over the clover-stubble, it is then shallow ploughed, and before rye or wheat is sown, the field is harrowed and ploughed several times. But it is not advisable on any account, to strew the lime-powder over our growing crops, because as it is soluble in water, it easily corrodes the plants. It may, however, be used in that way on meadows, on which much moss is growing, as it destroys those plants, and after it has united with the humic acid of the soil, it will elicit clover and sweet grasses.

It is also a general rule never to manure with lime in wet weather, for it will then combine with the sand of the soil into mortar. If, however, the lime is once well mixed up with the soil, rainy weather is desirable, as it then soon becomes dissolved and thoroughly mixed with the furrow slice, and then acts strongly on humus, the organic matter, worms, &c.—*Prof Sprengel.*

Three hundred and twenty bushels of wheat per acre.—It has been asserted by some, and sneered at by others in this country, that one hundred bushels of wheat could be easily grown upon a single acre. It will be seen that the following little experiment in England produced at the rate of three hundred and twenty bushels! The imperial bushels contains 2218.192 cubic inches; the Winchester (our common bushel) 2150.42; the Imperial bushel therefore, is to the Winchester as 1 to .969447. The English quarter of wheat is eight Imperial bushels of seventy pounds each, equal to nine and a half American bushels of sixty pounds each.—*Am. Ag.*

Good Yield of Butter.—We have often urged upon farmers, the importance of giving more attention to their dairies, so as to increase the quantity, and improve the quality of their butter and cheese. Two thirds of the dairymen we verily believe, do not make more than one hundred and twenty-five lbs. of butter per cow, while many, we have no doubt, fall short of that quantity. We have often expressed the opinion, that with a good selection of cows, and good care, from one hundred and fifty, to two hundred lbs. per cow may be made. We now have the pleasure of stating that Mr. Brainard of Western, in this county, has this season, made from sixteen cows, one hundred and seventy lbs. per cow, besides a supply for a family of six, and much of the time seven and eight persons, during the whole year. This would probably have increased the quantity, to between one hundred and ninety, and two hundred lbs. This too without any extra feed than hay and grass, except one hundred and fifty pumkins this fall. At the prices for which the butter sold, (most of it 12½ cents, and the remainder 14 cents,) the average proceeds amount to twenty-one dollars and forty cents; this after raising two calves, and taking into account the pork made from the dairy slops, is surely a good return for capital and labour invested.—*Central N. Y. Farmer.*

Candles that do not require Snuffing.—Candles may be made to burn their own wicks by saturating them with a strong solution of nitre, and then thoroughly drying them. The cause of the wicks of candles refusing to burn is, that the air cannot get access to them. The nitre, however, at a high temperature, will supply oxygen enough for this purpose.

Whether you attempt little or much, let every hour have its employment, in business, study, social converse, or diversion.

BOOK FARMING—A FACT.

"I want to know if you believe in this book-farming," said a neighbour, as he walked into the room, where I sat reading the Cultivator.

"Be sure I do," was the reply.

"Well, I don't; I never took an agricultural paper in my life. There is B. S. of W——, who came into this country, fifteen years ago, and had to buy fifty acres of land on credit. He has cleared that up, and added from time to time, till he now owns two hundred acres—has good buildings, and money at interest. He always has good crops. He has averaged *twenty-five* bushels of wheat to the acre for several years; it is the same with all his other crops. While his neighbour E. W. has not raised more than *seven* bushels of wheat to the acre, and some of his other crops he never harvests. I would give more for the experience of B. S. than for all the book-farming and farming by rule in the world."

"Very well, sir, now let me have a word. This 'experience' of B. S. of which you speak, (i. e. the method he adopts to raise twenty-five where his neighbour raises seven bushels of wheat, and other crops in proportion,) if written out and published, would be the very *essence* of book-farming, which you so much despise, and might benefit others as well as you. And then, secondly, I know this B. S. also, and it gives me pleasure to inform you that he is a regular subscriber to, and constant reader of *three* standard agricultural papers—the '*Cultivator*,' the '*New Genesee Farmer*,' and the '*Western Farmer*,' while this same E. W. will not have an agricultural paper in his house, and partly because he *cannot afford to take such a paper*."

Here the man suddenly remembered his errand, which was to borrow an improved harrow, a plan of which I had found in my paper, and which he was pleased to say, "did the work much better than mine," (his)—so the subject was dropped.—I intend to speak to him again, ere long.

Ohio, Oct. 1844. H.

—*Alb. Cult.*

Extract from a letter of a Correspondent at China, to Brocksopp How, and Company, London.

Manners and Customs of the Chinese.—"As the difficulty of getting good Tea in Europe is now more general than it was before the expiration of the E. I. Company's Charter, the following Recipe for the sort used by the respectable portion of the Chinese may not be uninteresting to your friends, particularly as your connexion in Great Britain and Ireland is very extensive, and amongst whom you should give it every publicity:—

"To 1 lb. of Howqua's Mixture* add one quarter of 1 lb. of Mawqua's Small Leaf Gunpowder,* taking care to mix them well together, which can be best done on a large sheet of paper, as you can then see that the Black and green are blended together; after being thus well mixed, put them in either a Tea Caddy or Tin Canister closely covered, and, when using, put three spoonsful for every four, in proportion to the quantity you are in the habit of using, and you will thus have a first-rate quality Tea, at a less price than what you pay for an inferior sort, thereby making 3 lbs. of this delicious Tea go as far as 4 lbs. of the trash so generally sold under the name of Teas."

HINTS TO YOUNG MEN.

"Who aims at excellence will be above mediocrity; who aims at mediocrity will fall short of it."

Be industrious. We do not mean here the industry of the hands alone; but that perseverance in whatever we undertake, that is the secure precursor of ultimate success. Never allow the mind or the body to stagnate; activity is necessary to the health of both. Always have some worthy end in view, in whatever you undertake; remembering that to fail with good intentions, is more honourable than success in an evil cause.

Cultivate your mind. It is of more importance to the young, that their reading should be select, rather than extensive. One volume well understood, on any important topic, is better than half a dozen merely skimmed. There are many subjects of general utility, with which every man should have a partial knowledge at least; but it is one of the great faults of modern education to spend too much time on studies that rather burthen and clog the mind, than strengthen and inform it for life's practical duties. Reading, or studying without some definite aim, is likely to lead to few useful results. How many men there are who have spent a large part of their lives over books, of whom it may be said, "they remember a mass of things, but nothing distinctly." It is possible to cram the mind with masses of indigestible materials, destructive alike to a healthy and vigorous action of the intellectual powers. Such is not the cultivation of the mind required by a young American farmer.

Be economical. No matter if your parents are worth millions, it is not the less proper that you should understand the value of money, and the honest, honourable means of acquiring it. What mul-

titudes of young men, particularly in our cities, make fatal shipwreck of reputation, health, and eventually of property, by a neglect of this simple maxim. They are aware that their fathers obtained their wealth by habits of industry, but they are ashamed of the very name. They forget that wealth in this country passes rapidly from one to another, and that he who is rich to-day may be poor to-morrow; or that he who relies on wealth amassed by his father, may end his days in a poor-house. It is for the young here to say whether by industry and economy he will secure competence and respectability, or by extravagance and idleness become a worthless beggar and sponging outcast.

Shun avarice. One of the most disagreeable characters on earth, is that of the grasping, avaricious, penurious man. Generosity is perfecly compatible with economy; and the means which enable some of our most noble hearted, generous men, to do so much to benefit and bless mankind, are obtained not by close-fisted penuriousness, but by economy. The distance is not greater between the zenith and the nadir, than between the covetous and economical man: the first banishes every just and honourable feeling from the heart, the other fosters and ministers to them all.

Determine to be useful. No matter what may be your condition in life, you have an influence, and that influence should always be exerted in a proper way. The young have no right to fold up their arms, bury their talents, and become the drones of the social hive. Aim high, but with prudence; act with determination and perseverance; let no obstacle drive you from the path of honour and duty, and you may be sure of eventual success. Riches are not within the reach of all: competence is; and the latter condition is preferable in every respect to the first. Remember the Deity helps those who help themselves, and that utility is the great end of human exertion. —*Boston Cultivator.*

Agriculture is the art of raising crops; —husbandry, of preserving and expending them.

SUBSOIL PLOUGHING.

The advantages of subsoil ploughing, has been very forcibly called to our mind by the subjoined article which we copy from our intelligent contemporary, the *Southern Planter*. It is many years since we recommended deep ploughing, and it is not a little gratifying to us that we find the dread of disturbing the till pan, beginning to disappear from the minds of many, who some few years since, would as lief have crossed the path of a boa constrictor as break up the clay resting beneath some four inches of exhausted sand, which from time immemorial, has answered as an apology for soil. We recollect to have called at a farm in a neighbouring county, in 1839, to get our horse fed. It was in the occupancy of a tenant who had resided there for twenty years, and who, in the whole course of that time, had never penetrated the earth with the plough more than three inches. When we called, we found him engaged in *scratching* the earth with a one-horse plough, going scarcely deep enough to cover the poverty grass with which the field abounded. After saluting him, and procuring a feed for our horse, while the animal was masticating his meal, we entered into a pretty free conversation with our host, which we will hear repeat, with the view of showing how absurd are the notions of men who are wedded from the prejudice of ancient prescription to old practices, and eschew all book farming as worse than nonsense.

"Why do you not plough deeper, my good sir?"

"God bless your soul, stranger, if I *was* to break up the till bottom, and turn up the red clay, I should *pizen* the ground and nothing in the *yearth* would grow, and besides all the manure (and I've none to spare) would sink down into the ground, and my *crop* of corn wouldn't *git* no good from it; as it is, the manure I *puts* on the ground sinks the *yearth*, and I only *gets* benefit from it for one *crop*."

"Well now, my good sir, you have given me your *theory* for shallow ploughing, and, with your permission, I will give you mine in favour of *deep* ploughing."

"What do you mean by theory?"

"*Theory* means the settled ideas which a man may have imbibed, as the governing principle of his action, and is to him the motive of his practice."

"I don't understand you."

"Then, sir, what I mean by theory, is this—it forms the *reason* of my doing any thing—for instance, if I were going to plant corn in this field of yours, I should manure it, because theory tells me, that the plants would require feeding to make them grow. Do you understand me now?"

"Oh yes."

"Then I'll give you my *reasons* for *deep* in preference to *shallow* ploughing, and why I should mix a portion of the clay that lies beneath, with the sand above. You are fearful to break the pan, for fear your manure will sink, and yet you admit that what you put on the ground, only lasts for one season, and you apprehend that, as it is,

it sinks into the ground and gets below the reach of your crops. Now I think you are mistaken as to the cause of the loss of the good effects of the manure. I believe that, instead of its sinking, and thus eluding the reach of the roots of your growing plants, that it escapes from the surface of the earth. You bury it so shallow, and expose it so immediately to the heat of the sun and atmosphere, that, upon every succeeding rain, the manure rots faster than is necessary to the sustenance of your crops—faster than the rootlets can take it up, and as the most valuable, if not, indeed, the only part of manure that is valuable, is light, and volatile—it escapes through the pores of the earth, and is wafted away by the wind, and in all probability, is carried to your neighbor's land, where if it has a suitable soil it is attracted and absorbed, to enrich his land and nurture his growing crops. I notice that your corn stalks are very small and easily broken. The reason of that is this—there is very little potash in your soil, and hence not enough to dissolve the sand, and form that flinty substance which constitutes the elastic principle that enables either grass, corn, wheat, rye, or barley to stand erect. In all virgin clays there are more or less potash, and if you turn up some of your subsoil and cross-plough it, so as to mix it with the sand, you will just supply your land with one of the very ingredients which it wants."

"Well, but a red clay will *pizen* the land, and nothing will grow on it."

"Not so. I don't wish you to turn up more than two inches at any one ploughing, and whatever may be injurious to vegetation, in that quantity, will be corrected by the sun and air. It is the oxide of iron, which gives the red color to the clay underneath the sand of this field, which, if it were in too great quantities to be brought into immediate contact with the roots of growing plants, might possibly injure them, but the quantity I name could do no harm. If you had *lime* to apply to your land, the oxide of iron would be converted into a substance similar to the plaster, and an immediate benefit would ensue to you, in a two-fold sense, first by neutralizing the bad effects of the iron, and, secondly, by converting the latter into plaster."

"Who ever *hearn* of iron being in the ground excepts in lumps hard as stones?"

"Many before you were born."

"But let me proceed. By annually turning up a portion of your clay, instead of having to cultivate an almost barren sand as you now have, in a few years, you would have a good mould, that would resist the influence of the scorching rays of the sun, and your crops would avoid being burnt up by the slight droughts. Your manure instead of being drawn up and lost through the heat of the sun, will remain in the earth, rot gradually, and as gradually supply your growing crops with food, and you will find that instead of having to manure every year, once in four years will answer, and particularly if you sow clover and turn that in every second year."

"Why, bless you, clover won't grow here."

"Yes it will, if you do as I tell you: plough deeper, turn up and mix the clay with the sand and lime your land. If you can't afford to lime, plaster it. A bushel to the acre for a year or two will enable you to raise clover, provided you turn up the clay and get the potash into action."

"Potash! why, there never was either potash or ashes put on the ground and I'm too far from market to haul it, if I was able to buy it, which I ain't."

"I told you before that there was potash in the red clay."

"How did it get there?"

"Providence placed it there for wise and beneficent purposes, and it remains for you to use it or not, as you may see fit. Plough deeper, I tell you, and you will find potash enough, to add to the fertility of your soil and increase your crops."

"I *reckin* you're a book farmer—you talk so like the strange things *I's hearn* on."

"No, my good sir, I'm not a book farmer, but like yourself, a farmer in a small way, even smaller than you are, yet I do read books, and papers too, on farming, and have read them with delight, and I hope profit, from my earliest recollection. What I see in them that my judgment approves, I practice, if an occasion offers—what I see that I do not approve I reject—and if you were to take an agricultural paper, both you and your children would profit by it. No man ever yet read anything without gaining by it. The agricultural papers, besides containing the essays and views of *theorists*, have much of the practical experience of *practical* men in them, and by reading them, men become acquainted with the customs and modes of culture of all parts of the world, and surely, with such a field before them, those who do not improve by it must be dull indeed. But I have a few words more with regard to deep ploughing, and its effects in promoting the growth of crops. By deepening the bed in which the plants have to grow, you enlarge the pasture of the plants; you enable their rootlets to descend, as well as spread with more facility, and it must be obvious, that by so doing, you greatly improve their chance of growing, as the least difficulty they may experience in searching for food, the better chance they will have of thriving,. You say that the red clay beneath the sand is poisonous to your crops. Be it so. But keeping it in a compact form, you do not render it less injurious, for notwithstanding its hardness, the roots of your corn will penetrate it several feet, so that the objection which you have raised is *imaginary*, not *real*, and by keeping that stiff clay in an unbroken state you present it to the roots of your corn, in the very worst and most injurious form that you possibly can,—plough deeper, turn it up to the action of the sun, the air, and the rains, and you will soon rid it of its poisonous qualities."

"How deep would you recommend me to plough?"

"Why, I would have you increase your soil two

inches each year, until you get at least nine inches in depth."

"Why, bless you, stranger, my plough can't never go that deep, and besides my horse could'nt never turn up nine inches."

"Get a bigger plough, and put in two horses instead of one. By getting a deep tilth, you will enable your land to absorb a good deal of manure from the atmosphere."

"Who ever *heard* talk of manure being in the air?"

"I have. There is at all times floating in the air, a substance, which if you can only impart to your soil the power of attracting and absorbing it, you will find that it will add greatly to the fertility of your land. That which escapes from your soil as the manure rots, is the substance I mean, and it is carried away from you, to add to the fertility of your neighbour's land, because of its being in a condition to retain it. As the manure in your barn-yard rots, its most enriching properties are carried off by the same process and lost to you. If you wish to prevent such loss, you can do so, by keeping a few inches of dirt of any kind spread over your manure. This will act in a two-fold way, beneficially in your interest. It will prevent the gaseous substances I have spoken of, while the body of earth above the manure will become impregnated with the richest of the manure, as decomposition goes on, so that the earth, thus placed on the top, will become as good as any other part of the manure. You have often smelt at a distance from your manure pile, an unpleasant stench, have you not?"

"Yes."

"Well that is what I call a gaseous substance and the very best and most fertilizing part of the body of your manure pile. It is that which flies off with each current of wind, is lost to you, and enriches the better land of your neighbour, because that land is in a condition to attract and absorb it, as I have before told you."

"Well, stranger, I don't understand all you have been saying, though I think I'll try to plough a little deeper, and burn some of the shells about my house and shore, and see if I can raise clover."

"If you'll do so, you may raise clover and timothy too, and make three bushels of corn where you raise one now. Do you raise any wheat?"

"No; my ground won't grow it."

"Follow my advice, and after you get a good crop of clover, plough that in, seed your field down in wheat, and I'll promise you a good yield, provided you apply ten or twenty bushels of lime to the acre,"

"They *tells* me that a hundred bushels is not too much."

"That's very true, but the quantity I have named will answer for several years, and I see no necessity for a man of small means applying a large quantity, when a smaller one will answer present purposes. I believe that lime is not only an alternative, that is an amender of the soil, but I believe it is also a positive manure, that is, that the plant takes it up as a nutrient."

"Nutrient! what is that?"

"A substance that nourishes and encourages the growth of plants."

With this our conversation ended, and we were happy to learn only a few days ago from the individual to whom it was addressed, that he had followed our advice, and had last year, from a field which he was formerly in the habit of getting from two to four barrels of corn to the acre, according to the season, gathered upwards of eight barrels, and that he had grown as fine a crop of clover as he wished to have, when, in former times, when his field was resting, nothing but a poverty grass and stinted weeds reared their heads.—*Am. Ag.*

How to get New Varieties of Potatoes.—When the vines are done growing and turning brown, the seed is ripe; then take the balls and string with a large needle and strong thread; hang them in a dry place, where they will gradually dry and mature, without danger of injury from frost. In the month of April, soak the balls for several hours in water, then squeeze them, to separate the seed from the pulp; when washed and dried, they are fit for sowing in rows, in a bed well prepared in the garden; they will sprout in a fortnight; they must be attended to like other vegetables. When about two inches high, they may be thinned and transplanted into rows. As they increase in size they should be hilled. In the autumn many of them will be of the size of a walnut, and from that to a pea. In the following spring, they should be planted in hills, placing the large ones together—they will in the second season attain their full size, and will exhibit several varieties of form, and may then be selected to suit the cultivator. I would prefer gathering the balls from potatoes of a good kind. The first crops from seeds thus obtained, will be very productive, and will continue so for many years, gradually deteriorating, until they will again need a renewal by the same process.—*Amer. Far.*

For Sunburns and Chilblains.—A small portion of honey mixed with lukewarm water, and allowed to cool, makes an excellent wash for sunburns and chilblains. —*New Far. Jour.*

COMPOUND FOR FATTENING CATTLE.

Flax-seed and oil-cake have long been considered very valuable for fattening cattle. The English farmers prize these articles highly, and great quantities are imported and used in the British Islands. Oil-cake is even carried from this country to fatten English beef. One great advantage which the English farmer thinks he derives from the use of it, is the improved quantity of the manure, and this is considered of such consequence as to balance a large portion of the expense of the cake. Flax-seed or linseed *oil,* has likewise been sometimes used, mixed with bran, &c., for fattening animals, and the effect has been a very rapid gain. We have occasionally used flax-seed for cattle with good advantage, by boiling it and mixing it with meal, cut hay, &c. We recollect the practice of one man in particular, who, more than twenty years ago, was considered to have great success in fattening cattle. He boiled a quantity of ground flax-seed, or instead of that, pulverised oil-cake, with potatoes, and scalded in meal, (either from barley or corn,) in such quantity that when the mixture was cold it could be cut out in pieces, and in that shape was given to the cattle while they were in their stalls.

In the third volume of the *American Farmer,* is an article by Nathan Landon, of Litchfield, Conn., on the subject of feeding cattle with cut straw, oil-cake and flax-seed. He says he fattened an ox and a three year old heifer, with less expense, even, than that of common keeping, by the following process. He says—I boiled "about two quarts of flax-seed and sprinkled on to cut straw, which had been previously scalded and seasoned with salt, together with some oil-cake and oat-meal, working them together in a tub with a short pitch fork, till the whole became an oily mush. I fattened the heifer first—she was of ordinary size, and in good order to winter. I gave her about three pecks [of the mixture] which she ate voraciously, and in the course of four days, when the seed was gone, she was visibly altered. I fed her regularly in that way about two months, in which time she had eaten about one bushel of boiled flax-seed, with the other ingredients in proportion,—when she was butchered, she weighed 584 pounds, 84 pounds of which was tallow. She would not have sold before fattening for more than $16. I sold two quarters of her beef for $18 13. She cost me not more than $10, exclusive of the hay and straw she ate, which was chiefly scalded as above. On the first of February I began with the ox. I fed him about three months, but not altogether so well as I did the heifer. He digested about one pint of boiled flax-seed a day, prepared as above, which I suppose formed half the fat in these two cattle. The ox was short, measured [girthed] seven feet two inches, and when killed, weighed 1082 pounds, and had 182 pounds of tallow. He cost me while fattening, twenty-five cents a day; he had previously cost me thirty-five cents. My net gain in fattening these two cattle, was more than all I have cleared before in fattening oxen and cows in fifteen years; and this is owing, I think, chiefly to the use of the flax-seed. I never fattened cattle that appeared so calm, so hearty, and digested all their food with so much natural ease and regularity as these. I kept my cows in the same way in the month of March for one-third the expense of hay. It makes excellent milk and butter."

We have lately seen frequent recommendations of an article used in England for fattening cattle, called "Warnes' Compound." Sir Charles Burrell, in a letter published in the *Farmers' Journal,* gives an account of the mode of making this celebrated compound, from which we gather the following. It is said to be a very economical and efficacious food.

1st. Let a quantity of linseed be reduced to fine meal, that is to say, let every seed be thoroughly broken. 2nd. Put about 156 pounds of water into a copper, and let it boil. 3rd. Stir into the water quickly 2lbs. of the linseed meal, and let it boil for about five minutes. 4th. Let 63lbs. of barley or bean meal be sprinkled upon the boiling mucilage by the hand of one person, while another as rapidly as possible stirs and works it in. The whole will now have assumed the form of a thick mess or pudding. The fire should be put out, and in a short time the food must be given to the cattle. When cold, the compound should be perfectly stiff. Many farmers put it into moulds like those used for bricks while hot. The compound is generally given in small quantities at first, and increased at pleasure—for the first week, 5lbs or 7lbs. per day, when according to the size of the animal and quality of other food given, the quantity may be increased to 14lbs. 21lbs. or 28lbs. per day. To make cattle compound with potatoes or white carrots, nothing more is required than, after having properly steamed or boiled, to remove them from the vessels, *as hot as possible, into a trough,* then sprinkle some linseed meal upon them, and knead the whole into a mass with the rammer. The compound may be put hot into the moulds and made into cakes, or used from the trough. Less labour will be required, if the roots are removed from the cooking vessels in small quantities, and incorporated with the meal. The proportions must be left to circumstances and to the cost at which cattle are intended to be fed. The effect of giving only one pound of linseed meal per-day to a bullock, when incorporated with potatoes or carrots, will soon become visible; but if a pound or two more were added, the animal would fatten at a rate which those alone who watched the proceedings could believe.—*Alb. Cult.*

Protection to Bark of Trees.—Twisted hay or straw-bands bound round the stems of fruit-trees, and slightly coated with gas-tar, will prevent sheep or cattle injuring them. Painting the bark with any kind of mixture may close up the pores of the outer skin, and thus retard the growth of the tree. By the above plan, the air has free access to the boll.

HEN HOUSE.

Many farmers that keep hens complain that they do not lay in the season of the year when eggs are in the greatest demand either for consumption in the family or for the market. It is well known that with all the attention that can be bestowed on fowls, that they will not lay so well in cold weather, and hence the high price of eggs at that season; yet much may be done to encourage the production of eggs in the inclement season, and frequently with profit too. Near a good market, one egg a week each, in the months of November, December and January, will pay for the food usually consumed by hens.

Though in some cases great pains have been taken to make hens lay in cold weather, and without success, yet this is not generally the case. Most persons that wisely manage in this respect, have very good success. Hens should be provided with a warm dry house; it would be well to have the house so warm that water would not freeze in the coldest weather, and when the weather is mild it should be well ventilated.

Last fall we gave what we considered the best plan for a hen house, and for the benefit of many new readers we will now repeat the substance of it in a few words. Make a house 6 or 7 feet high, 10 feet wide and 10, 20, or 30 feet long, or longer, each length of ten feet forming a section. Divide it lengthwise into three parts of equal width; the centre of which will serve as a walk and on each side to every ten feet will be a ward, which should be constructed as follows:—About four feet from the ground or the ground floor, make a flooring over the whole ward, excepting about ten inches square at each corner, by the wall, for the hens to come up through.

Over this floor put two roosts, about ten or 15 inches above it, according to the height of the house. On going up on this floor a hen can walk along and take any empty roost, and the manure should be frequently removed from the floor, and a little plaster, ashes, charcoal dust, or sand thrown on it, unless the manure is to be saved for morocco dressers. By adding a small quantity of plaster and charcoal dust to the dung, the ammonia will be fixed and good *guano* may be made. If the manure be not removed, the ammonia will injure the fowl's eyes, when closely confined.

On a line with the walk, and about 13 inches under the front of the flooring, put a piece of board a few inches wide, with the edge up, extending from one end of the section to the other, for the front of the nests to rest on. On a level with this and one foot back from it put a board, one foot wide, flat side up, extending like a narrow strip from one end of the section to the other, for the front of the nests to rest on. Then make nests of light thin boards, one foot wide from right to left, that there may be ten to a section, and about thirteen inches high, and about the same from front to back.

These nests will rest on the edge of the narrow board, and go back and rest on the wide board an inch or two, then the hens can walk along on the wide board back of the nests, and take any one they please. The nests should be about six or seven inches high, excepting every second one should extend up to the flooring on the sides, to form a division. They will be open on the upper part at the back part, and the open space in front should be closed with a piece of board, to be removed for the purpose of taking out the eggs.

At each end, a short piece of board should extend from the wide board named above, back to the wall, from which the fowls can go up through the flooring. Against the wall in the centre, there should be a piece of board, about 15 inches from the ground, and from this there should be a piece at each end, extending up slanting to the two short pieces just named; on these slanting pieces there should be some cleats. Then the hens can occupy all the ground, or ground floor, without impediment; then can jump up on the piece by the wall and walk up the ladders, and go along the wide board to any nest, or go up through the flooring and to any roost. This gives economy in room as the fowls can occupy the whole ground, then above it the nests, then the flooring and then the roosts, and a free passage to all, and the manure nearly all saved, in the cold season and removed.

There should be a window in each ward, extending up about as high as the roost, and down to within a foot and a half of the ground. This may be taken out in summer for the purpose of ventilation. The fowls may occupy the walk, or it may be kept neat and clean, by putting laths from the flooring to the roof, and from the nest to the ground. Instead of building a house on purpose, part of a shed or other building may be finished off in this way as a section, or as a single ward, just by taking a place about three feet wide any desirable length. A hen-house may be rendered warm by banking it up with common earth, and this can be done in favourable situations with but very little labour.—*Bost Cult.*

Shoe Blacking.—The Southern Planter says, he had been watching the boots of persons passing his office for some time, to find out, whose did most credit to the brush. At length he pitched upon one man, who always looked well to his *understanding*, and on inquiry where he got his blacking, was informed that he made it himself, from the following receipt,

3 ounces ivory black,
2 " coarse brown sugar,
½ " oil of vitriol,
½ " muriatic acid,
1 table spoonful of sweet oil,
1 pint of good vinegar.

Mix the ivory black, oil, sugar and vinegar, and then add the oil of vitriol and muriatic acid mixed together.

MANAGEMENT OF THE HORSE.

This noble animal is an indispensable servant and companion of the farmer. He ploughs, he harrows, he carts over the farm. He goes to market, to mill, and to meeting; he also accompanies his master to election frolics, political gatherings, and winter sleigh rides, and his company is as much sought after, at such times, as the orator's or the fiddler's.

The horse is more often abused than any of our domestic brutes. He is too generous to spare his limbs or his wind when we are in haste, and his generous ambition too often causes his ruin.

On the farm, however, the horse is not generally over driven as on the highway, when we attempt to outstrip the wind, and leave steam engines behind. It is fast driving and subsequent neglect that bring on sprained joints, broken lungs and premature old age,

Horses that are worked on a farm and are well attended to will often be good in harness at 25 years of age; while those that travel in stages are not expected to last longer, on the average, than six or seven years. They are then turned off to the farmer to serve in better business, or are sold to the tanner for what the skin is worth.

We have thrown out a few hints, in a former number, on the subject of horse breaking. We hold that any horse, with proper breaking, may be made to draw as sure as an ox. The horse requires different treatment because he knows more. And this circumstance makes it absolutely necessary that his driver should be wiser than the driver of an ox. We cannot vouch for the saying of the Irishman "that a horse knows as much as a man according to his bigness." Still we conjecture that some horses have more understanding than some men have.

HOW TO TREAT HORSES ON A JOURNEY.

Much judgment is requisite to keep a horse in good trim on a long journey, and when your jaunt is but 20 miles it is worth your while to look well to your horse. The first step is to fit the horse for the journey. If he has been kept out at pasture he should be taken up and put to hay and grain for a number of days before starting. Hay and grain must be his food while he labours hard, but when you first commence giving grain you must limit the quantity. When he has become used to eating grain you can make that his principal food on a journey; and this you will find cheaper than any other feed.

We have known farmers, of very good sense in other matters, act most absurdly in the management of a horse. They will give "dobbin" a mess of grain just before starting in the morning, though he has not been used to eating it before. Just as if half a peck of oats or corn, crammed down hastily, would aid him in his journey. Dobbin would perform much better through the day without a mouthful of grain. Even one that has been long used to it should never have his stomach stuffed full of it just before starting.

Your most hearty feed should all be given at night, unless you have hostlers that can be depended on to feed them two or three hours before morning; in such case a part of your grain may be given at night, soon after you stop, and the remainder two hours at least before you renew your journey.

We are aware that some overwise teamsters will argue, that if you give your horse his grain at night he will eat no hay of consequence, and that you will throw away the money you pay for hay feeding. They therefore endeavour to stuff in as much hay as possible at first, and give the more palatable food for a dessert or stuffer. This is most unwise on two accounts—your horse needs his most healthy food soon after his day's work is over,—and very hearty food hurts him when fed just before his work commences.

If the grain is given at night your horse soon eats enough to cloy him sufficiently to induce sleep and rest; but if he must have poor picking for some hours after being put up, his time of sleep and rest is delayed: it may require the whole night, in fodder that he must pick over, to satisfy the craving of his appetite.

If you are used to travelling you know you cannot always be sure of the best of hay for your horse. In New York the Dutch tavern keeper advises you to feed with *his latest cut hay.* He argues that more heart is found in this than in what is cut whilst in full blossom. Well, give a knowing horse such hay and he will stare you in the face and whinnow for grain.

We have travelled much, and on long journeys —we have learned from long experience that grain must be our chief reliance for horse food—that the horse wants something substantial soon after being put up—that his grain then benefits him much more than any other time, because he is then most in want of it, and because it then has time enough to digest and go into the system.

The best mode is to rely chiefly on grain. One peck of good corn is equal to two pecks of oats, but as your hay may not be good, prefer turning down half a bushel of oats before your horse, soon after putting him up at night. He must have something to fill his stomach, and as the hay may be worthless, your oats will answer for hay and grain to. Your horse will now soon eat as much as he wants—he will soon lie down to rest and to sleep; and before morning his grain will all be converted into good chyle and will be nourishing his blood.

The next morning your horse will be ready to start before you wake up. Instead of waiting for him to eat a new mess of grain, and then to let it digest, you find him plump and good natured and asking for nothing but your company.

It is well known that horses are often ruined by eating grain at improper times. Farmers have fancied that eating it while the animal is hot with exercise is the principal cause of injury from grain; but it is not so. We have known many horses to die suddenly on eating grain, but never on account of eating it soon after stopping. It is rapid driving—violent exercise—soon after eating the most hearty kinds of food that is so destructive to travelling horses. There is no more dan-

ger in giving a horse the most hearty food in ten minutes after he stops, than in giving a man his most hearty meal as soon as he quits mowing in a hot day.

Let any one consult his own feelings and he may rid himself of the delusion that eating after violent exercise injures him more than at other times. It is violent exercise immediately after eating, before the food has had time to change, that deranges the whole system and causes death. If any traveller objects to the *cost* of feeding on grain while on a journey, we answer that you pay no more for half a bushel of oats than for half a peck—for if you order half a bushel you buy at wholesale, and your landlord will charge you nothing for the hay. Suppose you pay double the wholesale price for oats, your horse keeping is then but fifty cents, in any country town in New England. And if you call for half a peck of oats with hay you will find your bill not far short of that sum.

STAGE HORSES.

These may be kept in a different manner from those tha' are on long journeys. They are always kept at *home*, and their tenders have leisure enough to prepare food for them.

Grain is the principal food of stage horses, but it is found economical to mix up cheap substances with it to distend the stomach and to keep the horse in health. Cut straw, or cheap hay, mixed with Indian meal is found to be excellent food for hard laboring horses; and as drivers have leisure enough to prepare it, this has now become the common food of such teams.

Thirty years ago it was the practice of drivers to give their horses meal and water on stopping for a few minutes to take breath. In hot weather it was no uncommon case to see a horse drop suddenly dead in the street. On opening the stomach raw meal was found in cakes. The violent exercise to which these horses are subject gives no time for the rich food to change. The horse cannot vomit, as a man and some other animals can, and he dies with a load on his stomach which he has no means to remove.

Show us one case where a horse has been injured by eating while warm and we will show you a hundred where he has died in consequence of travelling immediately after eating grain. You have all eat hearty meals immediately after labor, and while in a state of perspiration, without injury. And you have all felt pain, on using violent exercise immediately after eating. Judge of the horse as yourself, and you will judge rightly.

DIFFERENT MODES OF DRIVING.

There are at least two modes of driving horses on a journey. The most important consideration is to take all due advantage of the *momentum* or *acquired motion*, which your team has got up. You see it requires much more power to start a train of cars than to keep it in motion when under weigh. So when you move a tub of water on a dray, you find the water inclined to stand still, though your tub moves onward; but the water soon acquires the motion of the tub, and if you keep your tub moving steadily the water will need no more spurring.

When your team has once set the load in motion it should be regularly kept in motion as long as your momentum lasts. Set a planet in motion, and it continues in motion, for there is nothing to obstruct it. But bodies moving on another body are held to it by attraction, and any acquired motion is soon overcome by it. On descending a hill you acquire momentum with but little effort, and one important point, in driving, is to make as much as possible of this power; keep it in use as long as you can.

A good driver will never loose the power that his carriage has acquired in descending a hill, till it has been fairly overcome by friction, caused by the attraction that is found in all bodies. The momentum thus acquired may carry him across a plain, or part way up the next hill; he should therefore be careful not to check this motion in the least degree; but by keeping his team along out of its way, and making them favor rather than check it, he will lose none of its force.

But you find thoughtless drivers continually disregarding this obvious principle. They will come to a walk while the carriage has not yet forgotten its good will to move. The team, instead of favoring the good will of the carriage, is found hanging by the breaching. To compensate for this total loss this driver finds it necessary to renew the momentum, and he will often do it by whipping his team while raising the next hill! Folly, folly. Your team must have time to breathe, and the best time is while walking up hill. But the team should never be required to get up a great degree of momentum on rising ground.—*Mass. Ploughman.*

Alabama Wheat.—Several farmers in the neighbourhood of Cincinnati, have cultivated a new variety of wheat for a year or two past, with great satisfaction. It is called Alabama wheat, the fact that about half a pint was brought here from that State in 1839, by an observing farmer. After finding that it succeeded well in this climate, he disseminated it for seed, and it is computed that this year 2000 bushels have been raised, chiefly in the White-water Valley. It takes the preference, by far, over all other kinds of wheat brought to the Cincinnati market, weighing from 64 to 68 pounds to the bushel. Its yield has averaged about thirty bushels to the acre this season.—*Saturday Post.*

Cotton Feather Beds.—The Southron recommends making mattresses of cotton, which he says is preferable to any thing, as it is not liable to harbor insects, to become matted, has no moths, and is good for rheumatism. Cost of mattresses he estimates as follows—Hair, from $15 to $20; Wool, from $13 to $15; Feathers, from $16 to $25; Moss, $12; Cotton, from $6 to $8.—*Maine Far.*

RULES FOR THE APPLICATION OF GUANO.

We extract the following rules for the application of guano, from a pamphlet published in London, entitled "A Practical Treatise on the Use of Peruvian and Ichaboe Guano," &c., by J. H. Sheppard. After recommending the purchaser to procure guano from such cargoes only as have been analyzed by a competent person, and found to be unadulterated, he says—

"If there are any lumps in the guano, pulverize them through a sieve.

Never mix slacked or unslacked lime with the guano.

In case of mixing bones and guano together for a top dressing, let it be done only two days before applying to the earth.

In preparing for different soils, place a layer of ashes or earth, and one of guano alternately.—Turn the whole carefully over, and after properly mixing it together with a shovel, pass it through a garden riddle, and exclude it from the atmospheric air or damp situations, until taken away for use.

Always apply it just before or after rain, avoiding strong windy weather, if possible.

For clay and strong soils—mix wood, peat or turf ashes or sawdust, (if the former cannot be readily obtained,) with the guano, the day before using, sprinkle with farm-yard drainings, and mix thoroughly; pass through a garden riddle, preparatory to their immediate application to the earth.

For gravel, sand, or any light soil—mix with gypsum, strong clay or marl (not calcined,) of good black garden earth; expose this to the sun if not sufficiently dry, so that it will pulverize and pass through a sieve.

For top dressings for lands generally—(apply in April and May)—On clay and strong soils, 3 cwt. of guano, mixed with three times its bulk of ashes or sawdust. For meadow land, or any light soils, 2 cwt of guano, and 2 cwt. of gypsum, or 2 cwt. of guano, and three times its bulk of decomposed soil or good black garden earth.

For top dressing for wheat, barley, and oats on light soils—same quantity and mixture as the last named. Apply in May.

It is evident from the trials I have witnessed, as well as from many others, the results of which have been published, that *guano should not be placed in immediate contact with the seed.*

Effects of Guano.—The author of this treatise is indebted to Wm. Skirving, Esq., of Walton, for leave to insert the following letter, addressed to Messrs. Gibbs & Co., importers of guano, Liverpool

"I beg to acknowledge your letter of the 15th instant, and in answer to your question respecting the durability of guano as a manure, I have great pleasure in giving you my opinion, which is founded on experiments with the guano I have had from your house during the last three years. I am now thoroughly convinced that guano is not only a most valuable manure for the first crop, but for crops for years after, according to the quantity at first applied.

I have noted minutely the effect of guano on the crops for three successive years, where it was first applied at the rate of 4 cwt. to the acre. The first crop was grass, the second turnips, the third oats, and every year each of these crops was excellent; decidedly better than on the same kind of land adjoining, where I applied 20 tons of farm-yard manure per acre There is, therefore, no longer any doubt in my mind about the lasting qualities of genuine guano as manure, nor can there be any doubt of its being the cheapest manure we know of; for, in the experiments I alluded to, the guano cost £2 8s. and the farmyard manure £10—ten shilling per ton being the common price for the best horse and cow dung here in the spring time

In this neighbourhood a great deal of guano has been used for top-dressing grass land, at the rate of 2 cwt. to the acre, and in all cases that I have heard of, it has given very great crops the first year; but some of the parties who have used it in this way, complain that they did not see much improvement in the crop the second year. I should have been very much surprised if they had, for I have many times seen £5 worth of farm-yard dung applied as a top-dressing to an acre, and never could see any advantage of it after the first year. If people want manure to have a permanent effect, let them bury it in the land, and they will have the benefit for years; but if they scatter it to the sun and wind, without digging it in, they will never see its effects after the first crop.

I continue to use guano on crops of all kinds on my farm or garden, and in my nursery grounds, and in a liquid state I have used it in my hothouse and greenhouses, on plants of every kind, with great benefit to all.

In market gardens and kitchen gardens, I consider guano invaluable; for, by proper application of the liquid in the spring months, you not only double the quantity of many crops, but with such as rhubarb, sea-kale, asparagus, &c., you get them much earlier. In short, in all the departments of my business, whether the farm or the nursery, guano seems so indispensable. Whenever we see a crop not thriving, we apply guano the first *wet* day afterwards, and if the crop is not too far advanced, it generally has a good effect.

With the assistance of guano I had plenty of grass to mow last year, from the first week in April until the first week in December, besides a good bit of after-grass for grazing. To conclude, I beg to state, as my opinion, that the discovery of guano, is by far the most important of the age, either for agriculture or horticulture, and I, for one, feel particularly indebted to you for its introduction into England."

Mode of Testing the Quality of Guano.—"True guano is the excrement of sea-fowl, accumulating

in countries where there is no rain. It owes its virtue as a manure, first, to the presence of ammonial salts, and, secondly, to that of the phosphate of lime, or bone earth, derived from the bones of fish. To test for the ammonia, take a spoonful of guano and a spoonful of powdered quick lime, put them in a mortar, and rub them with the pestle for a few seconds. If the guano be genuine, the smell will resemble that of a bottle of salts, and will make the eyes water in the same manner. To test for the phosphate of lime place a small quantity of guano (say 100 grains) in an iron ladle, or similar vessel, in which heat it red hot over a clear fire for twenty minutes. If the guano be genuine, it will reduce to a white ash, weighing about 35 grains. The ashes of genuine guano will be found to be phosphate of lime, nearly pure. If it be required to prove this, a small bottle of acetic acid, or white vinegar, will dissolve the phosphate, and hold it in solution, leaving the silica and almunia (probably amounting to 3 or 4 grains,) undissolved. The ashes should be left in the acetic acid for two days, and the bottle occasionally shaken. It is assumed that the guano to be tested, be dry."—*Farmers' Journal.*

THE YOUNG MAN'S LEISURE.

Young man! after the duties of the day are over, how do you spend your evenings? When business is dull, and leaves at your disposal many unoccupied hours, what disposition do you make of them? I have known and now know, many young men, who, if they devoted to any scientific, or literary, or professional pursuits, the time they spend in games of chance, and lounging in bed, might rise to any eminence. You have all read of the sexton's son, who became a fine astronomer by spending a short time every evening in gazing at the stars after ringing the bell for nine o'clock. Sir Wm. Phips, who at the age of forty-five had attained the order of knighthood, and the office of high sheriff of New England, and governor of Massachusetts, learned to read and write after his eighteenth year, of a ship carpenter in Boston. William Glifford, the great editor of the *Quarterly*, was an apprentice to a shoemaker, and spent his leisure hours in study. And because he had neither pen nor paper, slate nor pencil, he wrought out his problems on smooth leather with a blunt awl. David Rittenhouse, the American astronomer when a ploughboy, was observed to have covered his plough and fences with figures and calculations. James Ferguson the great Scotch astronomer, learned to read by himself, and mastered the elements of astronomy whilst a shepherd's boy in the fields by night. And perhaps, it is not too much to say, that if the hours wasted in idle company, in vain conversation at the tavern, were only spent in the pursuit of useful knowledge, the dullest apprentice in any one of our shops might become an intelligent member of society, and a fit person for most of our civil offices. By such a course, the rough covering of many a youth is laid aside; and their ideas, instead of being confined to local subjects and professional technicalities, might range the wide fields of creation; and other stars from among the young men of this city might be added to the list of worthies that is gilding our country with bright yet mellow light.—*Rev. Dr. Murray.*

Two tea-spoons full of finely powdered charcoal, (says the *N. Y. Herald,*) drank in half a tumbler of water, will, in less than fifteen minutes, give relief to the sick head-ache, when caused, as in most cases it is, by superabundance of acid on the stomach.

To protect Hens from Vermin.—A gentleman from Hanover requests us to state the fact that *pennyroyal*, woven into their nests, will perfectly and certainly protect hens from the annoyance of vermin. He generally makes the nest entirely of this strong-scented herb.—*Southern Planter.*

Simple and Effectual Remedy for Hove in Cattle.—Try the remedy of an egg-shell full of tar, rather than attempt the barbarous practice of sticking. If two men hold the animal's head straight, a third its tongue to the right side, he can easily put down its throat an egg-shell full of tar, and in ten minutes relief will usually take place; but a second dose has never failed with my cattle, which are always kept at a brisk walking pace through the yard until relieved.—*Dublin Farmer's Gazette.*

Boys that have been properly reared, are men in point of usefulness at sixteen; while those that have been brought up in idle habits are nuisances at twenty one.

For Mechanics.—Avoid giving any long credit, even to your best customers. A man who pays easily will not thank you for the delay: and a slack, doubtful paymaster, is not too valuable a customer to dun sharply and seasonably. A fish may as well attempt to live without water, or a man without air, as a mechanic without punctuality and promptness in collecting.

The active only have the true relish of life.

The Schoolmaster.—There is no office says Channing, higher than that of a teacher of youth, for there is nothing on earth so precious as the mind, soul, and character of the child. No office should be regarded with greater respect. The first minds in community should be encouraged to assume it. Parents should do all but impoverish themselves, to induce such to become the guardians and guides of their children. To this good all their show and luxury should be sacrificed. Here they should be lavish, whilst they straighten themselves in everything else. They should wear the cheapest clothes, live on the plainest food, if they can in no other way secure to their families the best instruction. They should have no anxiety to accumulate property for their children, provided they can place them under influences which will awaken their faculties, inspire them with pure and high principles, and fit them to bear a manly, useful, and honorable part in the world. No language can express the cruelty or folly of that ceremony, which, to leave a fortune to a child, starves his intellect, impoverishes his heart.

Comparative Value of the Potatoe.—One hundred pounds of mealy potatoes are equal, for nutriment, to—

Meat without bone,	25 lbs.
Beans,	28 "
Wheat bread,	35 "
Parsnips and Carrots,	190 "
Turnips,	300 "
Cabbage,	400 "

The experiments of Berry & Herring establish the fact that 3lbs. of potatoes are equal for nourishment to 12 ounces of bread and 5 ounces of meat.—*Am. Ag.*

Forbearance.—Few virtues are more easily or justly appreciated than a mild demeanour and forbearance towards our neighbours and those with whom we are daily brought in contact,—gentle yielding of self to circumstance, and a habitual deference and respect to those about us. Possessing this, one may glide in an easy and unrufiled manner through all the stormy changes of life, giving and receiving happiness at all times, Not, be it understood, because the disposition is too indolent or insipid to be affected by either good or evil, but from a calm and persevering determination to make the best of everything—to look on the bright side of the picture in every instance. Forbearance is but another name for Charity, and the greatest of the cardinal virtues. The exercise of forbearance toward our fellows and toward the circumstances of life, is one of the greatest privileges we enjoy, inasmuch as by the practice of it we promote our own happiness, as well as that of those who surround us. How little comparative happiness do those enjoy who allow the most occurrences to weigh upon their minds, who seem almost determined to reverse the order of nature, because it happens to cross their inclinations. With them, self predominates every thing—they cannot yield an iota to the opinions or happiness of those about them, while they expect those same persons to make even greater sacrifices to them. Yield, then, as far as you consistently can, to the opinions and welfare of others, and by so doing you will reap your own reward, in an internal satisfaction, only produced by the consciousness of having done well.

Industry.—None can know what industry may accomplish until the trial has been made. Be industrious and persevering, and who can tell the result? An example of what it may do is found in the proprietor and publisher of the *New York Sun.* At an early age he was apprenticed to a cabinet maker in Hartford, Ct. He was allowed fifteen dollars to furnish him with clothes, and the privilege of doing over work at a low price to supply him with pocket money.

His first earnings in this way barely procured him a single candle to work by. By the light of this he was enabled to purchase two more, till at last, working late at night, he earned two cents an hour! But he was industrious and persevering. At the age of nineteen he paid four hundred dollars for his time—a sum which he had accumulated by his own industry—and became his own man. He then commenced business for himself, married before the age of twenty, worked from daylight in the morning, till eleven, twelve and one o'clock at night, sawed and split all his wood while others were asleep, and for a number of years carried the grain to mill upon his back, for all the meal and flour used in his family.

He is now the owner of three banks, all the circulation of which he says he is able to redeem at any hour, without touching the capital. He stills claims to be a mechanic, and applies himself industriously to his business. He may be considered a "child of fortune," but he certainly has been a man of industry.—*Bost. Cult.*

Those who possess any real excellence, think, and say the least about it.

Feed the earth and she will feed you:—act liberally towards her, and she will liberally reward you.

Duties of Parents.—Why are cases so frequent in which the children of virtuous parents grow up vicious and abandoned? There are many nice and delicate adjustments necessary to secure the highest and best results in the education of a child, but the principles necessary for tolerable success must be few and simple. There are two which we wish we had a voice loud enough to thunder in the ears of every parent in the country; the breach of one or the other of which will explain almost every case of gross failure on the part of virtuous parents which we have ever known. They are these:

1. Keep your children from bad company.
2. Make them obey you.

Habits of insubordination at home, and the company of bad boys abroad, are the two great sources of evil, which undo so much of what moral and religious instruction might otherwise effect. What folly to think that a boy can play with the profane, impure, passionate boys which herd in the streets six days in the week, and have the stains all wiped away by being compelled to learn his Sunday school lesson on the seventh; or that children who make the kitchen or the nursery scenes of riot and noise from the age of three to eight years, will be prepared for anything in after life but to carry the spirit of insubordination and riot wherever they may go. No! children must be taken care of. They must be governed at home, and kept from contaminating influences abroad, or they may be ruined, If parents ask, how shall we make our children obey? We answer just the easiest and pleasantest way you can, but at all events *make them obey.* If you ask, how shall we keep our boys from bad company? We answer too in the easiest and pleasantest way you possibly can, but at all events, if in the city, *keep them out of the streets;* and wherever you are, *keep them from bad company.* The alternative it seems to us, is as clear and decided as any which circumstances ever made up for man; you must govern your children, and keep them away from the contamination of vice, or you must expect to spend your old age in mourning over the ruins of your family.—*J. Abbott.*

The British American Cultivator,

(New Series,)

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W. G. EDMUNDSON, *Editor.*

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The present Volume will commence a New Series, and each Number will contain Thirty-two Pages Medium Octavo.

The Proprietors of "THE BRITISH AMERICAN CULTIVATOR" have great pleasure in being able to announce to the friends of Agricultural improvement in the British North American Provinces, that their Magazine is now beyond a doubt established upon a sound basis, and that every necessary exertion and care will be employed in its future management, to entitle it to the respect and support of every true friend of the productive interests.—The Editor of the *Cultivator* being practically engaged in Agricultural pursuits, and having made himself acquainted with the best theories, as well as the various systems of Agriculture successfully practiced in Europe and America, feels much confidence in renewing this annual pledge to his numerous friends and supporters. He also trusts that those who have been benefitted by his former exertions in the cause of Agricultural improvement, will exercise their influence in their respective neighbourhoods for the purpose of extending the circulation of this Journal.

The grand aim and object of the Editor of THE BRITISH AMERICAN CULTIVATOR will be, to create a stimulus for improvement amongst the productive classes, whereby the vast resources of British America may be speedily developed, and her inhabitants made prosperous and happy.

As Agriculture must ever be considered as among the *First of Sciences*, to which many others are hand-maids, it is truly desirable that the time may shortly come when the majority of the people of this country will so think, and act, in relation to this important subject. No effort shall be spared on the part of the Conductor of the "*Cultivator*" to effect such a revolution; and if accomplished, the productive wealth, the comforts, the conveniences, and the refinements of the country, will soon be quadrupled. Is there any one then, in this wide land, who can refuse to give his countenance and direct aid to agricultural improvement? The best means yet devised, to diffuse a spirit of improvement in the cultivation of the soil among all classes of the rural population, is the employment of the press, and the establishment of well organised Agricultural Societies,—these two helpmates to the Farmer should go hand in hand in this great work.

To make the *Cultivator* a true record of Canadian Agriculture, it is desirable that the Original Correspondence in its columns should be as varied in its character as are the diversified branches of improved Agriculture practiced in the country; and to supply this desideratum, the Proprietors beg to solicit the friends of Canadian Agriculture to aid them with Contributions from their pens.

In conclusion, the Proprietors beg to assure those who may favour them with their support, that no effort shall be left unemployed on their part, in the future management of this Journal, to constitute it one of the most practical and useful Agricultural Magazines published on the continent of America.