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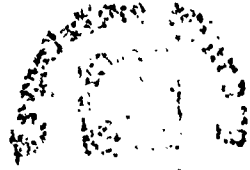
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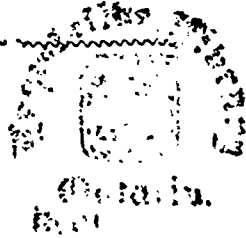
BRITISH AMERICAN

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C U L T I V A T O R .

VOL. I.—NEW SERIES.

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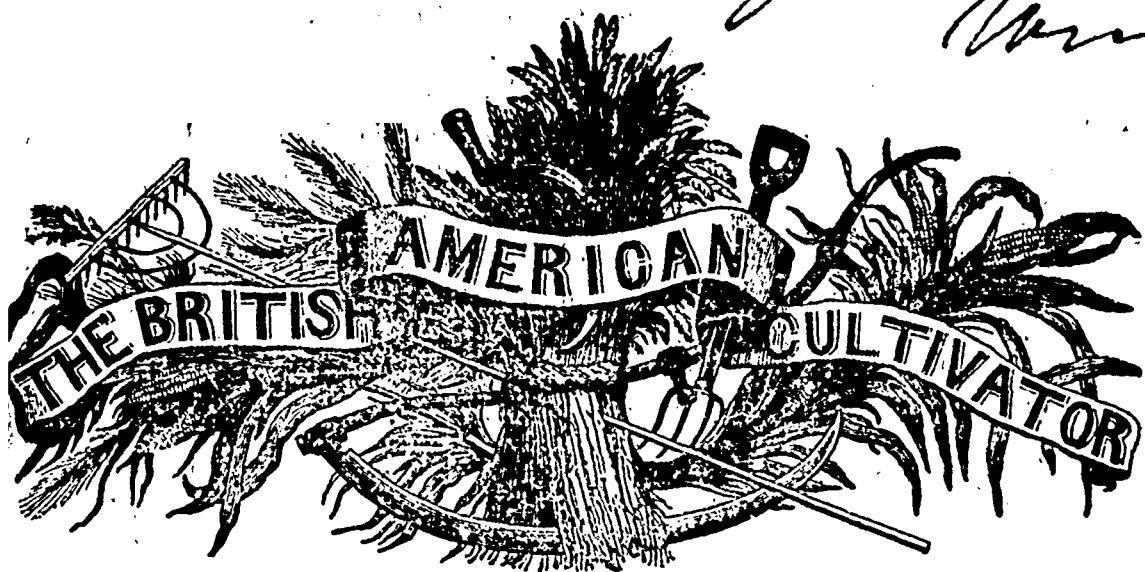
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"Agriculture not only gives Riches to a Nation, but the only Riches she can call her own."

NEW SERIES.]

TORONTO, JANUARY 1, 1845.

[Vol. I.—No. 1.

WORK FOR THE MONTH.

In this season of the year every description of live stock will require attention. Sheep, cattle, and horses would thrive better if they were supplied with common salt in their troughs; attend also to the cleanliness of your animals, and remember that regular good feeding is better than irregular profusion. Much difficulty is sometimes experienced in converting the whole of the annual produce of straw and coarse litter into manure; to expedite this process, confine your horned cattle and sheep in separate yards, each provided with comfortable sheds, and spread a thick layer of straw over the whole of the yards once or twice per week, and at the same time allow the hogs free access, so that the layers may be regularly and thoroughly mixed. This plan is only applicable to those who have a greater amount of coarse fodder than is required for food for their stock. If the weather be mild, manure may be drawn to the fields, and spread upon the young clover and wheat. Probably barn-yard manure cannot be applied to the land under any

circumstances, with equal beneficial results, as that of a winter top-dressing upon clover leys and autumn sown wheat. If the manure be long, so much the better for the wheat, as it will protect the young and tender plants, and the snow will not be so apt to drift, as if no such covering were used. Let each farmer make an experiment of this kind the present winter, and its advantages will, we doubt not, be so fully established, that the practice will shortly become popular.

A few experiments in marling and liming land may be made this winter.—If marl can be had, without drawing too great a distance, try one acre only, at the rate of one hundred bushels; either spread it about on the land in winter, or make it into compost with vegetable mould for a dressing for the young clovers in the spring. Marling is a new operation as yet for the farmers of this country. We pass our word, that if it be rich in lime, as most of the marl in this province is, that it will prove to be one of the richest and most valuable fertilizers in use. Do not satisfy yourselves

with the mere assertion of others, but try for yourselves, and the result, if favorable, will then be satisfactory.

Look to your fences, and see wherein you may improve their appearance, without serious expense. Crooked fences should be made straight; and small and irregular fields should be enlarged to suit the convenience of the farmer. If this matter has not already been attended to, the rails may be drawn and put in regular order for laying into fence at the opening of spring. Any improvement upon the old-fashioned worm fence, must be gratifying intelligence to the tasty farmer. There are two kinds of fences that are coming into use, which look much more pleasant to the eye than the common worm fence,—one of those is a worm fence, capped with a piece of board or timber about fifteen inches long, six inches wide, and one inch thick, with a four inch auger hole bored in each end, through which the stakes are placed perpendicularly, so that they fit closely to the fence. If the fence is intended to be carried nine rails high, the stakes are set through the caps when it has been built five rails high, and the remaining four rails, are placed upon the caps between the stakes. The stakes are generally made to project about two feet above the top of the fence, so, that when they become rotted near the surface, they may be sharpened and again driven in the ground without removing the rails. The only extra expense in adopting this mode, is the purchase of a four inch auger and making the caps. The other is simply a row of cedar-posts, being set in the ordinary manner, and in the intermediate distance between the posts is set perpendicularly a close column of rails which average about the height of the posts—near the tops of those rails and posts is

nailed a strip of inch board about four inches wide which is attached by a single nail to each. The ends of the posts and rails are sawn off even with the board, which gives the fence a uniform appearance. Before the posts are planted, a trench should be dug about two feet deep on the site where the fence is intended to be planted. This is one of the strongest and most durable fence that is applicable for the enclosure of fields, and it is well worth the attention of the Canadian farmers.

AGRICULTURAL CLUBS.

These valuable institutions have been frequently brought before the attention of the Canadian farmers, through the medium of the *Cultivator*, and we are proud to add, not without a portion of the desired effect. We lately attended a meeting at Richmondhill, which was composed of a large number of intelligent and respectable farmers and mechanics, for the purpose of aiding in the organization of a Farmers' and Mechanics' Institute. One gentleman came forward and liberally subscribed £5; and nearly forty individuals became members on the spot. The members of the Institute will meet as often as weekly in winter and monthly in summer, to discuss subjects of interest to the farmer and mechanic, and to hear lectures delivered and reports read from gentlemen, who, it is expected, will take an active part in the welfare of the Institution. A suitable building or hall will be erected, as soon as the funds can be raised, which the founders of the Institute earnestly expect can be done in the course of a few months. The ground has been given by one individual, and we are told that there are a number who are willing to subscribe most liberally. A library will be connected with the In-

stitute, consisting of the best works of the day, upon Agriculture, Mechanism, and practical Sciences; and it is anticipated that, if the public will come forward and subscribe their mite to sustain this noble and patriotic effort, an Agricultural Museum or place for depositing specimens of the most improved farming implements, choice seeds, and every other article that would contribute to the well-being of agricultural improvement, will be attached to the Institute Rooms, which will be open for the inspection of all who may think proper to call.

Each of the members of the Institute are to be supplied with a copy of the *British American Cultivator*, for the payment of an extra sum of 2s. 6d.

A similar institution has been established at Newmarket, with merely this difference, that the whole of the funds of the latter will be expended in the purchase of practical books upon Agriculture, Mechanism, and practical Sciences. Two or three conversational or discus-sional meetings, will take place previous to the issue of the February number, which will give us an ample opportunity of bringing this institution under the favourable notice of the public. The meetings are held on Saturday evenings.

The farmers and mechanics of Richmondhill and Newmarket have set a noble and patriotic example to their fellow-countrymen of other portions of the province. If the people would for once study their own and their country's interests, they would follow this example. Further particulars of the advantages of these Institutions may be seen in another portion of this sheet.

Cure for the Distemper in Cattle.—A writer in the *Quarterly Journal of Agriculture, England*, states that, "I cannot

resist giving a receipt for the treatment of beasts that may take the prevalent distemper. It showed itself last winter in one of my farm-yard stock, by its discharging abundant saliva from the mouth, with sore and inflamed tongue and gums, very dull, no appetite, confined bowels, and very hot horns. I desired the bailiff to give him one half pint of the spirits of turpentine, with one pint of linseed oil. repeating the oil in twenty-four hours, and again repeating it according to the state of the evacuations. At the end of twenty-four hours more, the bowels not having been well moved, I repeated both turpentine and oil. In two days the beast showed symptoms of amendment, and in three or four took to his food again, and did perfectly well. All the yard beasts and two of the fattening beasts have had it, and all have been treated in the same manner with perfect success. Half-a-pint of turpentine is the smallest, and one pint the largest dose, during three or four days. Little food beside oatmeal gruel was given."

Guano.—A very simple mode of testing the genuineness of Guano is, to dissolve a small portion in Hydrochloric Acid. (Spirits of Salt) diluted with four times its weight of water. The salts of the genuine substance will be readily dissolved, they being all soluble as well as the bone dust it contains in this acid, whereas other substances, from their not being acted upon by the acid will sink to the bottom, or be precipitated, in the language of chemistry. Pure Guano is of a light brown color, and is mixed with small portions of white substances here and there, which on being crushed between the fingers will appear like minute pieces of chalk, and which will be found to consist of fish bones.—*Am. Far.*

DO THE PRODUCERS OR NON-PRODUCERS RULE?

We suppose that it is scarcely necessary to ask this question, as it is a well known fact that the producers of wealth have a very small share of influence in the management of the Government of this Province. This would be less a matter of regret, if those in whom is delegated the business of influencing the government, would evince an active interest in fostering every branch of productive industry, and especially that of Agriculture and Mechanism. We have no desire to accuse any one in power of neglect; but it is well known that in the former history of the country, these branches have been allowed to struggle in their infancy, without receiving much support or protection from any other source than their humble followers; and even the latter have been so regardless of union and patriotism, that they have been actuated more by a spirit of selfishness than from higher and nobler motives. If an improvement were introduced or discovered in any portion of the province, no trouble apparently has been taken to make it generally known; why should any wonder at the backward state of improvement, when this semi-barbarous principle has been so generally fostered and practiced in the country? The period has at last arrived, when, we trust, a better state of things will exist. The producers of wealth are held in much higher estimation by the non-producers than they were only a few years since; and may we not add, that they have a much more exalted opinion of themselves and their profession than they had formerly.

Before any great change can take place in the condition of the country, steps must be taken to elevate the stand-

ing of the productive classes. The people themselves as well as the Government should look to this matter.

The day may come when the people will sufficiently understand their true interests, to adopt energetic measures to secure the return of a majority of practical intelligent agriculturists and mechanics to the Legislative Councils of their country; but in the mean time we would urge them to educate their sons, and teach them the necessity of storing the mind with useful knowledge, so that they may aid in elevating themselves, their profession, and their country, to the exalted rank they so richly merit. We beg to direct the attention of our readers to the following very pertinent remarks upon this subject, which we copy from the *Maine Farmer and Mechanic* :—

It is a fact that the productive classes, which are the most numerous, are ruled by the non-producers! We so consider it, and they therefore present an exception to the good old rule that the majority should govern. We do not wish to array one class of the people against another,—nor to excite jealousies and heartburnings among the farmers and mechanics in regard to the professional classes; but we wish them to inquire into the causes of this state of things, and ascertain the remedy. Why is it so? Is it not because the non-producers, by which we mean the professional man, the merchant, &c., act more upon the principle that “knowledge is power”? Do they not owe their superiority in the government of the country, to the superior education that they have obtained—to the improvement of their minds? They think more—read more—are ever ready to catch every new fact, every new idea, and to act upon any suggestion which will elevate them and keep them in the ascendancy. If this be true, if this be the talisman by which they hold the control over others; by which they rule, the remedy clearly is, to follow, or rather *lead* in the same track. Rub up the dormant faculties—improve the mind—store up the knowledge necessary to elevate you to the same standing, or a little higher than they are. God has given more equality of talent and faculties, than people have been willing to acknowledge—but too many have suffered them to lie unimproved,—have hid them as it were “in a napkin,” have buried them in the earth, and then murmured because this one, or that one had got the start of them. Now this ought not to be. We would that the *Farmer, and the Mechanic, and the Mariner* should be as learned, as well

read, and as familiar with the principles of philosophy, both moral and natural, as the Divine, the Physician or the Lawyer. We do not mean that they should be so well versed in the particular professions as each of these, but they should be versed in *general principles*, in the application of the laws deduced therefrom to the practical duties of the several stations in life. Nothing more is necessary than a *desire* to do it. The avenues of knowledge, in this country, are open to all. Books can be had in abundance, which will guide, —instruction lies in your daily path, all that is to keep the eyes open and the mind active. Improve the mind and you elevate yourselves. Elevate yourselves and you take an equal rank with those of the same grade, and have an equal command as those, who now, perhaps, rule you. A most pernicious opinion has been heretofore prevalent in regard to the knowledge requisite for a farmer or a mechanic. Indeed we have heard some gravely argue, that the less of book *learning* he had the better he "was off," because he would be "more contented and less aspiring." Aspiring, forsooth! as if because a man holds a plough, or pushes a foreplane, he should be an ignorant Ass all his days. This is sheer nonsense. There is no pursuit which can expand the mind more than the Agricultural or Mechanical Arts. They are the very demonstrations of science in every particular.

The practical operator in either of these grand divisions of labor, cannot make a single movement in his occupation, without putting into practice and illustration, some one of the laws of mechanical or chemical philosophy. Why should he not understand, then, what he is about? Why should he not be able to look as far into the mysteries of the natural world as any other man? Nay, why should he not be a pioneer, and lead others, instead of being an humble follower, treading with faltering, doubtful footsteps, far in the rear of the professional man? Who is to blame for his not being first and foremost? Who is to blame if the Non-producers take the lead and rule, and govern and dictate to the producer? Who but the Producer himself, who has suffered his talent to lie unimproved—his intellect to be unenlightened, and his mind to be undisciplined in the very things so essential to his success, his prosperity and his happiness.

"The fault, dear Brutus, is not in our STARS,
But IN OURSELVES, that we are underlings."

THE AMERICAN AGRICULTURIST.

Our printer neglected to give credit to the *American Agriculturist* for the article upon "Artificial Oysters," on the 135th page; upon "Batter-making," on the 138th page; and upon "Too much Land," on the 142d page of the 3d volume of the *Cultivator*, for which we beg to offer an apology. We trust that in future the like will not occur, and that none will have reason to complain on the score of our not giving credit where credit is due.

FARMERS' CLUBS AND LIBRARIES.

If any class of the community would be benefitted more than another from clubs or associations based upon the sound and philanthropic principle of mutual benefit, it is the agriculturists; entertaining this view, we feel it an incumbent duty as a journalist, to point out a few of the benefits that would result to our brother farmers were they to take the necessary steps to establish within their several circles of influence, or even within the limits of each township; a Farmers' Club and Library. The isolated residence of the rural classes, their limited means of obtaining information, and the very imperfect system of educational institutions heretofore in operation in the country; all clearly point out the necessity of something being done, by which the independent yeomanry of the province may be made better acquainted with the various influences that affect their noble calling—skill in agriculture can be obtained by practical experience, by acute and extended observations, by reading the best treatises written upon agriculture, by mutual communications, by conversation with intelligent farmers, and by comparing the result of experiments. With the exception of the first means pointed out to obtain instruction, it is to be feared that but a small proportion of the Canadian farmers will give themselves any trouble or anxiety in the matter. It is a fact, no less strange than true, that the experience of the Canadian farmers are confined to their respective districts or neighbourhoods, and they have given themselves no concern in comparing their own methods of agriculture with the methods practiced in other districts. No man should take it for granted that because he has been thirty or forty years employed as a far-

mer, or that if he pursues the method followed by his father before him, he will therefore necessarily prosper. To ensure the greatest degree of success to agricultural operations, it is absolutely necessary that those who cultivate the soil should make themselves acquainted with the best systems of agriculture practiced in this and other countries, whose climate and soil are similar to their own. But comparatively few are so circumstanced that they can afford to take a tour through their own, much less foreign countries, to obtain a general knowledge of the best systems of husbandry practiced; and it is obvious that those who are at all anxious to be in possession of a large fund of practical and scientific information upon agriculture, must adopt a cheaper and more direct method than making expensive tours to obtain it. One of the modes by which the Canadian farmers may elevate their profession, in the estimation of themselves, and all true friends to their country, is the organization of Farmers' Clubs and Libraries. If institutions of this kind were established in each city, town, village and populous settlement in the province, the whole face of the country would very shortly put on the appearance of prosperity, and this would become one of the most celebrated agricultural countries in the world.

At present but few farmers have access to books and treatises upon agriculture, and their opportunities for reading, and hearing public lectures are extremely limited. These opportunities might be afforded to every farmer, by the payment of a most moderate sum, not more than five or ten shillings annually. By a judicious selection of books the whole of the information, of modern date, published upon agriculture, and every

new work of value, as it emanated from the publisher's office, could be placed in the hands of such of the farmers as may have deemed it a matter worthy their attention to have aided in founding an Agricultural Library in their neighbourhood. The benefits that would accrue to the farmers, their sons, and the country in general, were agriculturists by any process whatever, to become a reading and reflecting class, is almost incredible.— When we say reading, we do not wish to be understood that they should read promiscuously all that came in their way, but principally such works as relate to their own noble profession, and the arts and sciences, that would tend to be of some practical benefit. Now, it appears, from what we know of the condition and wants of the agricultural community, that no means could be adopted that would have the same salutary effect in improving the intellectual faculties of the adult agricultural population, as the establishment of Agricultural Clubs and Libraries. The meetings of the clubs might very advantageously take place once per week in the winter, and once per month in the summer months. Those meetings to be of general benefit, should be conducted in an orderly and business-like manner; and the speeches should be delivered with less regard to their eloquence than for their practical and beneficial tendency. They will also afford for those who belong to them, an opportunity of being present at discussions, and taking a part in them, suggesting questions for investigation and discussion, of having doubtful points investigated and most probably solved, and also of deriving knowledge from communicating to each other the results of each others own experiments and personal observation. What we want in this country, is to

learn how, in the shortest time, and at the least expense, to produce the greatest quantity of food and other necessaries of life for the consumption of man and other animals, without permanent injury to the soil; and we know not how this skill in agriculture can be obtained except through agricultural schools, magazines, societies, clubs and libraries—these are topics upon which we shall treat most fully in the subsequent numbers of the *Cultivator*. In the mean time, we would conclude by remarking, that in order that the agriculturists should be stimulated to engage in the proposed agricultural movement, that legislative aid should be given at once, as an additional inducement for the establishment of Agricultural and Scientific Libraries.

To Young Men.—Truth well Spoken.—

We commend the following very sensible remarks from the *New York Tribune*, to the special attention of the young men:

It is a sore evil that labour, so essential to health, vigour, and virtue, is generally regarded with aversion. Even those who boast that they live by straight-forward hard work are almost uniformly seeking to escape from their condition. Even the substantial, thrifty farmer, whose life is or might be among the happiest, is apt to train his darling son for a profession or put him in a store. He laudibly wishes to put him forward in the world, but he does not think that half the time and expense bestowed in making him an average lawyer, or doctor, would suffice to make him an eminently intelligent and scientific farmer—a model and blessing to the whole country. Why will not our thrifty farmers think of this? The world is surfeited with middling lawyers and doctors—the gorge even of Iowa rises at the prospect of a new batch of either; of tolerable clergymen there is certainly no lack, as the multitude without societies bear witness, and yet here is the oldest, the most essential and noblest of employments, on which the full blaze of science has hardly yet poured, and which is to-day making more rapid strides, and affords a more promising field for intellectual power than any other, comparatively shunned and neglected. Of good, thoroughly educated, at once scientific and practical farmers, there is now here a super-abundance. Everywhere there is need of this class,

to introduce new processes and improve old ones, to naturalize and bring to perfection the plants, grains, fruits, &c., we still import from abroad when we might better produce them at home—to introduce a proper rotation and diversification of crops—to prove and teach how to produce profitably the most grain to the acre—in short to make agriculture the pleasing, attractive, ennobling pursuit it was originally intended to be. There is no broader field of usefulness—no surer road to honourable eminence. The time will come when, of the men of the last generation, Arthur Young will be more widely honoured than Napoleon. But while the true farmer should be the most thoroughly educated and well informed man in the country, there are many of our old farmers, even, who will cheerfully spend a thousand dollars to qualify one son for a profession, yet grudge a hundred each to educate the three or four less favoured who are to be farmers. There are farmers who cultivate hundreds of acres and never look into a book on agriculture, though they would not countenance a doctor or clergyman who studies no works on medicine or theology. What a world of mistakes and inconsistencies is displayed all around us!

There are thousands in all our cities who are well employed and in good circumstances; we say, let these continue, if they are content, and feel certain that the world is better in their daily doings. There are other tens of thousands who *must* stay here, as things are; having no means to get elsewhere, no skill in any arts but those peculiar to city life, and a very limited knowledge; these must stay, unless something should transpire out of the common course of events. There are other tens of thousands annually arriving from Europe, who, however valuable acquisitions to the country, must contribute to glut the market and depress the price of labour of all kinds in our city—some of these must remain here till they can obtain means and knowledge to go elsewhere. But for young men of our own happier agricultural districts to crowd into great cities or into villages, in search of clerkships and that like, is madness—inhumanity to the destitute—moral suicide. While nine-tenths of states are a waste wilderness, and all our marts of trade overflow with eager seekers for employment, let all escape from cities who can, and all who have opportunities to labour and live in the country, resolve to stay here.

*Great Yield of Pumpkins.—*Chas. L. Pierce, of this town, raised the present year from a single seed, 15 pumpkins weighing 384 lbs. The largest weighed 31½ lbs, and the average of the whole was 25½ lbs. each. The vine, including all the branches, measured 635 feet in length. —*Wor. Spy.*

PRICE OF LABOUR.

One of the principal checks to the introduction of new and valuable improvements in Canadian agriculture, is the very high rates of wages that is demanded by the agricultural labourers. The average rate for able-bodied farm labourers may be safely reckoned at £25 per annum, including board, lodging, washing, mending-clothing, &c. When every thing is taken into account, it will be found that each labourer will cost his employer about £50 per annum. It is pretty clear that those whose farming operations are principally performed by hired labourers, will have the smallest share of the profits, when all the expenses are paid, unless a large degree of skill, good management, and economy be observed in the several departments of the business. Labour is as high now as it was when wheat brought from 5s. to 6s. per bushel, and other grains in proportion, and pork and beef from six to seven dollars per 100 lbs., and every other description of agricultural produce sold at the same rate; clothing, and every other necessary of life that the labourer requires to purchase, have been reduced in price correspondingly with the agricultural products; thus we see that £10 will purchase as much clothing at the present time as could have been purchased for nearly double that sum ten years since. It may be said, that these are matters that cannot easily be avoided, as the value of labour, agricultural and mechanical produce, imported goods, &c., find their level like other commodities, but to a certain extent, the item of labour may be made an exception to this general rule, inasmuch as by examining into the former history of our country, we find that there has been but a trifling

variation in wages from her early settlements down to the present period.

Although the value of wild lands is so moderate that every labourer, by being industrious and economical of his time and means, may hope in process of time to become a landed proprietor himself, and a successful and independent cultivator of the soil, still it by no means follows, but that it is practicable for those who employ laborers, to resolve by common consent, to simultaneously reduce the rates of wages down to their proper level.

The question next arises, what this rate of wages should be; we answer, that the reduction of about £5 per annum upon the present yearly wages of each man, would equalize the complained of disparity, so that neither employer nor labourer would have much reason to complain. A much greater reduction than this would prove to be a serious evil to the whole community, and especially to agriculture, as but few of the best farm labourers of Great Britain would emigrate to this country, if wages were lower than they are in other new countries.

We would suggest the propriety of the speedy adoption of the proposed reduction; if the best farmers were generally to offer only £29, where they had been in the habit of giving £25, the result would be that a uniform reduction would very shortly take place. We have a few practical suggestions to offer the Canadian farmers, upon the best method of paying wages to their labourers, which we shall do the first opportunity that offers.

SUGGESTIONS TO FARMERS' SONS.

We copy the following very sensible remarks from the *Michigan Farmer*, to which we crave the attention of our juvenile readers. Every sentiment is worthy

of being written in letters of gold, and imprinted on the memory of the young men of this country. It breathes the true spirit of patriotism, and may it have a wholesome impression upon the minds of the youth of the land.

In the first place, we advise our young friends to remain, contentedly, at home, and resolve to become thorough and independent cultivators of the soil, instead of seeking what they may consider a more easy or genteel occupation in our cities and villages. Let them remember that "Agriculture is the noblest, and is the most natural,"—the most honourable, because it is the most useful,—pursuit of mankind: and if they consider well and decide wisely, they will determine to become farmers, and strive to excel in their occupation. Aside from its being the noblest, the calling of the farmer is the best calculated to preserve the health, and promote the morality, virtue, and consequently the peace and happiness of mankind. Indeed, in all ages, the farm has been considered the nursery of health, pure morality, and true patriotism.

We are aware that young persons engaged on the farm, are apt to think the business hard and degrading, and that they might live easier, and much happier, in the pursuit of some other calling; and the frivolous attractions of the city often induce them to discard the real and pleasant, for a visionary and perplexing means of livelihood and source of happiness. This is a most mistaken and erroneous idea, and the acting upon it annually causes the ruin of hundreds of young men who would otherwise become useful and worthy members of society. We speak advisedly, and that which we know, for—having been bred upon a farm, and afterwards accustomed to city life—we are conversant with the peace and pleasure, health and harmony, industry and cheerfulness of a country life, as well as with the follies and temptations of the city—temptations which, if not guarded against and resisted, lead to dissipation, vice, crime, misery, and ruin.

In addition to the above, there are numerous other reasons why we should advise farmers' sons to remain in the country, one or two of which we will mention. The most important of these is the fact that the occupation of farming is the surest means of livelihood, and of obtaining a competence. The offices, stores and shops of our cities and villages are already full to overflowing; and there is consequently little chance of arriving at distinction or amassing wealth, either in the learned professions or other callings carried on in our populous towns. Thousands are now out of employment, or dragging out a miserable and unhappy existence, in consequence of depending upon a precarious and unstable calling. And it is worthy of remark here—and we call the particular attention of our young friends to the fact—that while young men from the country are seeking the city in order to better their condition, the most shrewd and wealthy men in our cities are sending their

sons into the country and settling them upon farms. This fact alone speaks volumes in favour of agriculture as a pursuit, in preference to any other.

But we not only desire farmers' sons to become farmers, but learned men, and prominent, useful and worthy members of community. All this they may accomplish by the exercise of proper industry and perseverance. Let them bear in mind that in the parable of the talents, he who had five talents was not commended because he had them, but because he put them to a good use—and he who had but one talent was not condemned on that account, but because he made no use of it whatever. Remember also, that "not to use a talent, is to waste it," and resolve to improve your time and talents to the best advantage. Determine, not only to excel in the practice of your occupation, but to be well informed relative to all its branches. Be not content to follow in the beaten track of the dark ages—[and, by the way, many of our farmers of the present day, seem to be in almost Egyptian darkness, judging from their mode of husbandry, &c.]—but try to institute improvements, and see if you cannot, make two blades of grass grow, where only one grew before. It is your first duty to study your occupation—to inform yourself by practice, observation, and reading the results of others' experience. Read carefully all the agricultural books and papers that you can obtain—and if you cannot afford to take more than one paper, let it be one which will prove useful in teaching you relative to the various branches of your occupation.

Next in importance to this study, is the duty to inform yourself concerning the past history and present condition of your country. This you may do by reading extensively, carefully and considerately—for which you will have sufficient time, if properly improved, in the long winter evenings and other seasons of leisure which farmers enjoy. Do not for a moment entertain the erroneous and too prevalent opinion that it is either unnecessary, or impossible, for farmers to become learned. Employ all your leisure time in useful reading and study (instead of dreaming over senseless love-and-murder novels, &c.) and you will become learned and useful—worthy of the confidence of your fellow citizens, and capable of discharging the duties of any station to which you may be elevated. Bear this in mind, and do not waste your time in idleness, or in contracting expensive, injurious and vicious habits. And, among other things, practice *economy*, for this is a cardinal virtue, in either man or woman. Economy and frugality are essentially necessary in the proper and laudable acquisition of property. Read Franklin's Essays on this and other subjects, and follow the judicious and wise advice they contain.

Finally, young friends, resolve to be men—intelligent, enterprising, virtuous and worthy members of society. And if, in following the course we have marked out, you do not become distinguished among your fellow men, certainly your worth and usefulness will render business to yourself and satisfaction to commu-

CUT WORM.

Errors in natural history may do much harm, and I conceive the one I am about to notice, is not an exception. James Corwin in the *Boston Cultivator*, noticing the remark of Mr. Ruffin, in his recent survey of South Carolina, "that cut worms in corn may be destroyed by continued tillage and a naked and open soil," remarks that "the cut worm would not be found in corn were it not planted in sward or sod land; they are the progeny of a species of beetle or other insect, which could never propagate its kind without the aid of dung, which is found in grass fields that have been fed by horses or cattle, and in this they enclose their egg or eggs and sink them a given distance below the surface," &c. &c. Mr. Corwin has mistaken the grub of the common beetle for that of the cut worm moth. The latter does not lay its eggs in dung, but in the ground. The cut worm is the caterpillar of a moth belonging to the lepidoptera and genus *Agrotia*. There are several species, the larvæ of which are injurious to various plants, cabbages, corn, &c. They confine themselves to no particular vegetable, but prefer young corn a few inches high. The moths fly only at night, lying concealed during the day under the bark of trees, in the cinks of fences, &c. The only effectual remedy that has yet been discovered, says Harris, in his excellent *Treatise on insects injurious to vegetation*, "is to go round the field every morning, open the earth at the foot of the plants, you will not fail to find the worm at the root, within six or eight inches. Kill him, and you will save not only the other plants of your field, but probably many thousands in future years." The reason, probably, why corn on a clover lay is subject to cut worm than in any other preparation, is that the clover has been affording the insects excellent food and shelter for two years or more, and they have thus increased in numbers greatly beyond what they could have done in cultivated fields. It is believed that Mr. Ruffin is right in his remark, if he includes in his meaning of the words "continued tillage," the necessity of destroying every worm can be found. But as the moth has wings and uses them freely at night, one farmer may destroy every cut worm in his land this year, and yet have an abundant supply in his fields next year, the parents of which have emigrated from his neighbours who were not so industrious. If every farmer would, however, adopt this means of getting rid of this formidable pest, then Mr. Ruffin's remedy, with the proposed addition, would certainly be effectual. The truth is, that we are all too inattentive to the destruction of insects at the commencement of their career. One minute's work in 1840 would have saved a week's labour of a dozen men in 1844. There is nothing easier than to catch and kill the first two or three insects that appear in a field or garden; but they are generally unheeded, because "two or three insects can do no harm;" they are permitted to lay their eggs. Next year there are several hundreds of them, and even if one-half of these are caught and killed, (which will not often

happen,) the other half will lay their eggs, and on the third year we shall have 50,000 or more, and then there will be work on hand to kill them. The depredations of the common caterpillar, for instance, can easily and certainly be prevented in this way, as the writer of this knows well from his own experience. In a garden full of shrubbery, every year this caterpillar makes its appearance, as an emigrant from the neighbouring gardens; but it is a rule never to allow the first insect to escape. Each and all are destroyed as soon as they make their appearance, and consequently there is no multiplication of them by the 500 for one.—*Alb. Cult.*

PRESERVATION OF APPLES.

A gentleman from the northern part of Indiana recently communicated to us a fact in regard to the preservation of apples, which will be new to many of our readers, and valuable to all farmers. He says, that, to keep apples from Autumn to June, he places them in a shallow hole, dug as for Irish potatoes, having covered the bottom with corn-stalks or straw, and the straw with dirt to the depth of five or six inches. No shelter is placed over them. As soon as the severe weather arrives, and the ground, and perhaps the apples themselves, become thoroughly frozen, straw is again placed over the frozen heap, and the whole again covered with a coating of earth,—this time ten or twelve inches thick.

The object is to keep the first coating of earth frozen until spring, and then to cause it to thaw very slowly.

The same treatment may be given to turnips, Irish potatoes, beets, and carrots. Any of these roots may be thoroughly frozen without injury, provided they are then covered well over, and suffered to thaw by slow degrees.

Sweet potatoes are almost the only exception among roots to this rule. They are injured by a small degree of cold, and without being frozen. It is only the sudden thawing that causes the dissolution of the apple or potatoe that has been frozen. If in the frozen state an Irish potatoe is put into cold water, until the frost is out, and is then cooked, it will be as good as if it had never been frozen. All these are facts, which we know from our own experience, and that of many others.—*Philadelphia Saturday Courier.*

GAPES IN CHICKENS.

Messrs. Editors.—From all I have seen and heard on the subject of what is called gapes in chickens, it is a disease which is not generally understood. I shall therefore give you my opinion on its nature and cure. This spring having my chickens attacked as usual with the gapes, I dissected one that died, and found its *Branchus* or *wind-pipe*, (not the throat,) filled with small red worms from half to three-quarters of an inch long. This satisfied me that any particular course of feeding or medicine given would not reach the disease. I therefore took a quill from a hen's wing, stripped off the feathers within an inch and a half of the end, trimmed it off with scissors to about half an inch wide, pointing it at the lower end. I then tied the end of the wings to the legs of the chicken affected, to prevent its struggling; placed its legs between my knees, held its tongue between the thumb and fore finger of the left hand, and with the right, inserted the trimmed feather in the windpipe (the opening of which lies at the root of the tongue,) when the chicken opened it to breathe, pushed it down gently as far as it would go (which is where the windpipe branches off to the lobes of the lungs, below which I have never detected the insect,) and twisted it round as I pulled it out, which would generally bring up or loosen all the worms, so that the chicken would cough them out, if not, I would repeat the operation till all were ejected, amounting generally to a dozen; then release the chicken, and in the course of ten minutes it would eat heartily, although previous to the operation it was unable to swallow, and its crop would be empty unless filled with some indigestible food. In this manner I lost but two out of forty chickens operated on; one by its coughing up a bunch of the worms which stuck in the orifice of the windpipe and strangled it—the other apparently recovered, but died several days after in the morning; in the afternoon upon examining its windpipe, I found a female worm in it, differing from the other by branching off at the tail in a number of roots or branches, between each of which were tubes filled with hundreds of eggs like the spawn of a fish; and although the chicken died in the morning, the worm was perfectly alive in the afternoon, and continued so for half an hour in warm water. While I was examining it in a concave glass under a microscope, it ejected one of its eggs, in the centre of which was an insect in embryo.

From this fact, I have come to the conclusion that when the female worm breeds in the chickens and kills it, these hundreds of eggs hatch out in its putrid body in some very minute worm which probably after remaining in that state during the winter, change in the spring to a fly which deposits its eggs on the nostril of the chicken from whence they are inhaled and hatched out in the windpipe and become the worm I have described.

There is one fact connected with this disease—that it is only old hen roosts that are subject to it; and I am of opinion that where it prevails, if the chicken houses and coops were kept clean and

frequently whitewashed with thin whitewash, with plenty of salt or brine mixed with it, and those chickens that take the disease, operated on and cured, or if they should die, have them burned up or so destroyed that the eggs of the worms would not hatch out, that the disease would be eradicated.

I am also satisfied that the chicken has not the disease when first hatched; several broods that I carried and kept at a distance from the chicken-house where the disease prevailed, were entirely exempt. And chickens hatched from my eggs where they had never been troubled with this disease, were perfectly free from it; and a neighbour of mine who built in the woods half a mile from any dwelling, and has raised fowls for six or seven years past, and has frequently set my eggs, has never had the gapes among his chickens.

With my first brood of chickens, there was not one escaped the gapes. But all that have been hatched since I had the chicken-house and coops well whitewashed inside and out, with thin whitewash, with plenty of brine in it, and kept clean, have been exempt from the disease, with occasionally an exception of one or two chickens out of a brood.

In operating on the chickens, although one person can effect it, it is much easier done to have one to hold the tongue of the chicken while the other passes the feather down its windpipe, and by having a small piece of muslin between the fingers, it will prevent the tongue from slipping, which it is apt to do upon repeating the operation.

Accompanying this, I send you drawings of the gape worm in their natural sizes, and as they appear when magnified. Nos. 1 are the male worms, and Nos. 2 the female; you will observe that the heads of both male and female branch off in two trunks with suckers like leeches at the extremities of the trunks, one trunk longer and thinner than the other. The intestines extend from the branching of the trunks downward towards the tail, and perfectly apparent when magnified. This female branches off like the root of a tree at the tail with intermediate tubes filled with small oval eggs.

Yours, &c.

G. F. MORTON.

Mill Farm, New Windsor, Orange co., N. Y.
Aug., 1844.

[We have always succeeded in curing the gapes by timely exhalation of a strong tincture of *Assa-fœtida*, which we used under the supposition that worms were the cause of the disease, and that the smell and taste of that noxious tincture would dislodge them, and as a prevention of the disease we have successfully placed a small portion of the drug in the vessel in which the chickens received their drink.—*Ed. Am. Farm.*]

There are two modes of establishing our reputation; to be praised by honest men, and to be abused by rogues. It is best, however, to secure the former, because it will be invariably accompanied by the latter. His calumniation is not only the greatest benefit a rogue can confer upon us, but it is also the only service that he will perform for nothing.

AGRICULTURAL SURVEYS AND
REPORTS.

The practice is becoming very popular in the United States, of employing competent persons to visit the best practical farmers, for the purpose of collecting information upon agriculture, which is subsequently published in the shape of reports, for the benefit of the public. In many instances those Surveyors, or rather Commissioners, are employed by government, and a portion of the expense of publishing is also paid from the same source; the country in this way has been flooded with valuable information upon Agriculture, and the result has obviously been, a thorough reform in the whole of their agricultural operations. A spirit for improvement has thus been awakened in the breasts of the community, so that it has become scarcely necessary for the Government to share any portion of this burden. As evidence of this statement we would mention two facts:—Henry Coleman, Esq., formerly Agricultural Commissioner of Massachusetts, by whom a number of massive volumes of agricultural information was collected and published as above described, is now on a tour through Europe, to collect information upon the science and practice of Agriculture, which is given published in Magazine form in Boston, for the benefit of his fellow-countrymen. A. Randall, Editor of the *Cincinnati Plough Boy*, and Charles Wittlesey, formerly Geological Surveyor of Ohio, are at present engaged in collecting information in Ohio, which they intend to publish in one volume, which will be ready for publishing in January, 1845, and be offered for the low price of one dollar. They have proceeded from farm to farm, and learnt the different modes of management and cultivation, the various plans of building,

the different breeds of animals, kind of vegetables and varieties of fruit cultivated, the various modes of fattening animals, and all other information appertaining to the numerous branches of husbandry.

We would be happy to hear from our friends upon this subject, so that we might be able to judge whether it would be advisable to advocate a similar course for the adoption of the Government and people of this Province.

MANUAL LABOUR SCHOOLS.

Our readers will no doubt recollect, that about two years since, we published a number of Resolutions, embodying a scheme for the organization and government of a Manual Labour School, which was about being established in the vicinity of Newmarket, and which would have been in operation before this time, had it not been for a very unpleasant circumstance which came to light very shortly after those resolutions alluded to were published. Upwards of eight thousand dollars were subscribed, to aid in establishing this institution, by the spirited inhabitants of the Home District; but notwithstanding their unparalleled liberality and patriotism, it was deemed a wiser course by the majority of the committee of management, to disorganise and allow the embryo institution to die a premature death, rather than disgrace themselves and the cause by bolstering up an edifice based upon an unsound foundation.

This apparent failure, under the peculiar circumstances of the case, reflects no discredit upon this class of institutions. As an unflinching advocate of manual labour institutions, we humbly conceive that the day is not far distant when they will become both popular and numerous in this country. They are

certainly adapted to the circumstances and tastes of the people, and if under proper controul and management, they would be of an incalculable benefit to the Province.

The Government would set a noble example by liberally patronising or endowing such an institute. The Governments of France, Austria, and Prussia, have long since richly endowed manual labour schools; and the Governments of Great Britain and the United States are now extending their aid to those noble institutions; and we see no good reason why, in this great agricultural province of the British Empire, that something liberal should not be done in this respect as well as in other countries. In the capacity of Editor of the *Cultivator*, we shall agitate this subject until some definite action upon it has been taken by the Legislature; in the meantime we would beg to direct the attention of those who have influence in head-quarters, to the following very forcible remarks upon this subject, from the pen of the late Judge Buell:—

MANUAL LABOUR SCHOOLS.

"It is essential to every system for giving a liberal education to all classes, that it should include the means of inuring the people to manual labour. By this labour the multitude must subsist. An education unfitting them to work, would make their future lives useless and dishonourably independent."

* * * "It is by manual labour schools, that this great achievement of civilization and philanthropy is to cease to be a dream, it is to become a reality. In no institutions have the labouring classes such an interest. A philanthropist who desires the happiness and honour of giving the most effectual spring to social progress, cannot better employ himself, than in studying, improving and extending these."—*Rev. Dr. Channing upon Education.*

It is, conceded on all hands, says Judge Buell, that it is important, as well for the pecuniary interests, as for the moral habits and good order of society, that a better system of instruction, than now exists, should be provided for the great classes of the labouring community. That instruction should no longer be merely mechanical, and limit-

ed to the rudiments of knowledge, and confined to the superficial rules of the pedagogue,—but that the faculties and powers of the mind should be developed, and directed to the ultimate good of society; that our boys should be taught so much of the physical sciences, now become the hand-maids of the arts, as will benefit them in their trade or business, and "enable them to comprehend the phenomena which are continually passing before their eyes;" that they should be instructed in their social and political duties—be made acquainted with our history, government and laws, and instructed in the responsibilities that devolve upon them as citizens of a free state. In fine, that their minds should be so disciplined in school, as to make them proficient in their business of life, and wholesome, useful members of society.

And it is also important, as regards the mass of population, that the hands be taught and inured to labor. The habit must be formed in youth. Practice alone makes perfect; and besides, few resort to labour in manhood, who have not been practiced to it in youth. The time of youth is too short to admit of separate and distinct periods for improving the mind, and instructing the hands. The grand desideratum therefore would seem to be, so to blend study and labour, in the business of instruction, that they shall not interfere with, but aid and stimulate each other. To do this successfully, the study and the labour should have generally, common object. In no country can this proposition of rendering study and labour reciprocally beneficial to each other, and of imbuing the minds of youth with useful knowledge, be as readily adopted as in our own. The mass of population, whose condition we would improve, are farmers and mechanics. And experience has fully shown, that if we would improve the condition or habits of any class, or of society at large, we must begin our work with the young, who are to be managers on the business stage of life. It is easier to bend the pliant twig than the stubborn bough.

Our remarks apply particularly to the business of agriculture, which gives employment to five-sixths of our population, and which mainly depends, for its future improvement, upon the measure of general and scientific knowledge which shall be brought to direct its labours; while this class of our population, from its numerical force, must ever determine our general character—whether we regard the social virtues,—or our political and moral standing as a nation. This class of our youth may, at least, be greatly benefitted in practical knowledge, while they are acquiring a good education at school.

That well conducted farms, connected with schools of instruction, and under the direction of competent, scientific, and practical men, would tend eminently to improve our agriculture, we think no one will question. That to the mental improvement of youth, such as would fit them for the higher duties of society, such schools would superadd a knowledge of the science and best practices of agriculture, a useful qualification under all circumstances, and a certain and honora-

ble resource under pecuniary misfortune, must be no less apparent. Such schools would do more—they would improve the moral condition of society by rendering labour more honourable and more inviting, and by winning from the paths of idleness and dissipation, where their examples contaminate and corrupt, multitudes of the children of wealth, and transforming them into men of industry, and usefulness.

LAMENESS OF A HORSE—SPLINTS.

Mr. James M. Tower, of Waterville, asks for information relative to what are called splints in horses. We handed his letter to Dr. Wright, veterinary surgeon of this city, who has favored us with the following:

MR. TUCKER—In answer to your correspondent, Mr. Tower, I would request him to examine the bones of the fore leg of a horse. He will there find, placed immediately behind the large metacarpal or shank bone, two smaller ones, which adhere to the shank bone by a cartilago-ligamentous substance. These two bones form a part of the knee joint, and give firmness, support and elasticity to the limb. This adhesive substance is liable to take inflammation from concussion or straining the part; it then becomes absorbed, and bony matter is thrown out between the bones, which will sometimes grow to the size of half a hen's egg. These osseous tumours are called splints. In slight cases the treatment is simple—slight blisters, repeated, or the iodine ointment, mixed equal parts with Ung. Hydr.; or Ung. Hydrage, 2 oz with one drachm Hydrate of Potass, rubbed on the part. The last operation, for this disease is called subcutaneous periostiotomy, but is seldom necessary.

GEO. WRIGHT, M. R. V. C.

We add the following from Youatt's Treatise on the Horse:

"When the splint is forming, the horse is frequently lame. The periosteum or membrane covering the bone is painfully stretched; but when this membrane has accommodated itself to the tumor that extended it, the lameness subsides and altogether disappears, unless the splint be in a situation in which it interferes with the action of some tendon or ligament, or in the immediate neighborhood of a joint. Pressing upon a ligament or tendon, it may cause inflammation of those substances; or, being close to a joint, it may interfere with its action. Splints, then, do not necessarily cause unsoundness, and may not lessen in the slightest degree the action or value of the horse. All depends on their situation."

"The treatment of splints, if it be worth while to meddle with them, is exceedingly simple. The hair should be closely shaved off round the tumor; a little strong mercurial ointment rubbed in for two days; and this should be followed by an active blister. If the splint be

of recent formation, it will usually yield to this, or to a second blister. Should it resist these applications, it can rarely be advisable to cauterize the part, unless the tumor interferes materially with the action of the suspensory ligament; for it not unfrequently happens, that, although the splint may have apparently resisted this treatment, it will afterwards, and at no great distance of time, begin rapidly to lessen, and quite disappear."—*Alb. Cult.*

INDIVIDUAL EFFORT.

Every thing is accomplished by it—no great reform or plan for the improvement of mankind was ever originated and carried forward, save by individual effort. The masses never start up in a body and adopt this or that mode of reform, moral or political—there must be a pioneer, a leader, one to start the thing; and after him many more to put their shoulders to the work *individually*. When impressed with the truth of a thing, we should not wait for our neighbour or neighbours to think as we do, before putting our thoughts in practice—we should go right about it, do as we think is just and right, regardless of the opposition and sneers of those whose habits and prejudices run counter to it, remembering that "example is better than precept," and that "actions speak louder than words."

Many people, however deeply the necessity of reform or improvement may be felt by them, have not the courage to encounter difficulties by acting up to their sense of right, especially if the sense of right be opposed to the habits and prejudices of those around them. What can I do they say, (or think,) with so many opposed to me? But in this they make a great mistake—millions are counted by beginning with an unit, and by individual effort the most stupendous undertakings are carried forward to successful issue. In political matters, we are frequently told of how much has been accomplished by a single vote, and the fact has been over and over again proved that the most simple and apparently unimportant act of our lives has exerted the greatest influence, not only over them, but on the destinies of others. We cannot calculate the amount of good or evil that flows from the neglect or use of individual effort.

Often times the neglect of doing what we know to be right, is productive of more evil than a positive wrong. We are therefore called upon to do whatsoever our reason teaches us to be right, as well as to abstain from what we know to be wrong.

Every man should feel that he is individually responsible for his acts, and that because others do what his judgment teaches him to be wrong, it is no excuse for him supinely to follow in their track. Every man should think for himself, and so thinking should act. In political matters, his vote should be given according to the dictates of his judgment, regardless of how others vote around him—it is his privilege, the sign of his freedom, and he knows not how much, in the aggregate, may depend upon this individual exercise of his will. In morals, in religion, it is the same. The individual is accountable, and he should never forget the responsibility that attaches to him, or fancy that the humbleness of his situation in life deprives him of the rights and privileges of manhood, or exempts him from a performance of the duties belonging thereto. In a moral or political point of view, we are all equal, and the most important results may (and more frequently do) hinge upon the actions of a poor man, as well as upon those of his richer neighbor. Let us never forfeit our independence and manhood by supineness or fawning, or forget how much may be accomplished by individual effort.—*Boston Bee.*

IMPORTATION OF CANADIAN FLOUR INTO ENGLAND

Sir Robert Peel's Canadian Corn Bill has, in the past six months, come into practical operation to a considerable extent. By the last returns received from Montreal, we find the exports from the St. Lawrence, since the opening of the navigation to the 11th September, comprise

Bushels Wheat.	241,276
against	15,417
Barrels Flour.	351,692
	57,497

in the same period of last year, which is evidence sufficient of the large and growing trade we may look for from this measure. The natural causes which have tended so materially to depress our home markets, in the same period, could not in the course of things, leave any other than indifferent result to the exports from Canada; but we are

sorry to remark, that the receivers of Colonial Flour have had other difficulties, independent of the adverse course of the market, to contend with—the quality, on arrival, having proved worse than any previous year within recollection. Fully *three-fifths* of the shipments, since the middle of June, have arrived quite in bad condition, being more or less heated and sour; the consequence has been the sale of considerable quantities at ruinous prices, varying from 21s. to 23s. per barrel—besides establishing [we trust only temporarily] a strong prejudice with our dealers against many brands that are intrinsically good, and deserving of a fair price for baker's use. The only way we can account for this unpleasant fact, is the hurried manner in which the process of flouring has been conducted; owing probably to the pressure of supply of the raw material upon an extent of power inadequate to its proper manufacture; and the consequent dressing, packing, and shipping Flour in a warm state at a period of the year when natural cooling [much preferable to any artificial process] is more especially necessary. We are the more inclined thus to account for the great depreciation of this season's Flour, from the circumstance that our supplies of Canada Wheat have been mostly of good quality and landed in fair condition. It becomes, therefore, a duty on our part urgently to impress upon the Canadian millers the necessity of much greater care for the future, when preparing their Flour for the English market, as it is quite evident to us an opposite course must re-act upon themselves in the falling confidence that will prevail among the buyers, both here and in the provinces; leading, as it assuredly will, to a lower range of prices for their staple export than greater care would insure them.—*Wilmer and Smith, October 12.*

A Word to Correspondents of Agricultural Papers.—For the purpose of making every communication which may appear as useful as possible to readers, we would suggest a careful attention to the following particulars.

1. In giving the weight of Animals, state their age; 2, breed. 3, quality of carcass if dead, or appearance and shape if alive; 4, manner of feeding and treatment—mentioning especially any derivation from the ordinary course pursued in rearing or fattening them.

If Crops, specify, 1, the exact kind of variety, 2, where the seed was obtained, and of whom; 3, kind of soil; 4, mode of culture, including a statement of the previous condition of the ground, kind and quantities of manure added, &c.

The purpose should not be to amuse so much as to interest, and to publish that such a person has raised an Ox, weighing 4000lbs.; a Hog, 1500; or a Sheep, 200; or had sheared 16lbs. of clear Wool, is to inform them simply of a monstrosity? but if we tell them at the same time, where they can procure such breeds, and how they may attain such weights, we place information in their hands, that will enable them to derive a practical benefit from the communication.

PROVINCIAL AGRICULTURAL SOCIETY

Scarcely mention has of late been made of the proposed National Agricultural Institution which attracted some attention during the early part of last winter, and which ere this would have been established in Canada, had the leading agriculturists been more united and zealous in the cause. Unless there be passed a special Provincial enactment, embracing a very liberal endowment to such institution, we think it scarcely practicable to enlist any considerable portion of the farmers of this country in its ranks. This opinion has not been formed without due consideration; but aside from our views upon the subject, if others think proper to take the lead in the matter, we would be most happy in lending our aid to establish an association that would have for its object the concentration of the talent, skill, and enterprise of the country, into one common focus, for the general good. Such a society, however, cannot be formed without a considerable exertion and personal sacrifice on the part of those who take the lead in its organization, and probably in the meantime it would be advisable for all who wish to see the cause of agricultural improvement progress, to lend their aid in establishing District Societies, with branches in the Townships, something after the plan that we have so frequently set forth to the public; and by this means the people will gradually be prepared to appreciate the advantages that would result from a National Institution. When District and Township Societies are established upon a sound basis, then may we hope to see the Grand Provincial Agricultural Society organized upon a scale commensurate with the importance of such a laudable institution. We would, therefore, beg to sug-

gest to each of the present subscribers of the *Cultivator*, the propriety of stimulating their neighbours to vigilant action and co-operation in the great and patriotic enterprise of establishing the above description of institutions in their several localities. The ground-work of the plan has been previously published, and has received a pretty general approval of the agricultural societies already in existence; but in consequence of the great apathy so generally manifested by the agriculturists themselves, in this important matter, it has not been carried into operation to that extent that was anticipated by its projectors: we would therefore urge upon our friends to renew their energies in the cause,—and at no period can it be so easily accomplished as the present winter. If a general effort be used in favor of District and Township Societies, and those efforts prove successful, it is highly probable that a Provincial Society will be organized before the expiration of the ensuing twelvemonth.

BLACK SEA WHEAT.

We have much pleasure in giving insertion to the following correspondence, and beg to offer a few remarks upon the very important subject of introducing a change of seeds, roots, &c., cultivated in this country. The Black Sea Wheat is a variety, that has been highly extolled of late in the American agricultural papers, and we doubt not but that it would prove a valuable acquisition to the farmers of Canada; but we think it would be injudicious to import a large quantity of this or any other description of grain, until its adaptation to our climate had become fully known and established. There would be less danger, however, in importing seeds from the Northern and Western States, and from the extreme

northern countries of Europe, than from southern climates. In illustration of this assertion, we would mention a few facts that came under our especial observation. We purchased last spring two pecks of the celebrated *Bellevue Talavera* spring wheat, which was sowed very early upon a piece of land in a very high state of cultivation, and although a very heavy top-dressing of soot was applied to the crop in the early part of the season, it only came out in ear in September. This experiment proved a total failure, and at the same time a considerable loss. This variety of wheat is invaluable where it is adapted to the soil and climate, but it is clear that it is not sufficiently hardy for a winter variety, nor is it suited to the short summers of this province, to be sown in the spring. A friend of ours residing in the Gore District, sowed about thirty varieties of imported wheat, and was very particular in the management of the whole of the samples, and from this thirty varieties sown, only two proved worthy of cultivation, although the whole were justly celebrated in the country from whence they were imported. It is scarcely necessary to adduce further proof of the caution that is necessary to be observed in importing seed grains from foreign countries.

The principle advocated by our esteemed friend and correspondent, is not only worthy the adoption of every agricultural society in the province, but should be practiced by every individual farmer—we mean the principle of changing seeds, or sowing them alternately upon soils of different qualities, and procuring choice or celebrated varieties from foreign countries. In our humble opinion, in importing seeds from foreign countries, small samples only should at first be distributed among the agriculturists; but very honourable exceptions, however, may be made to this rule—the “*Black Sea Wheat*,” the “*Mediterranean Wheat*,” and the “*Improved White Flint*,” all of which varieties are most successfully grown in the north-eastern portion of New York, might very

profitably be sown in this country in large quantities. The same might be said, no doubt, with regard to other descriptions of this valuable grain, with which we are not acquainted. Before either societies or individuals resolve to send large sums of money out of the Province for the purchase of valuable seeds or animals, we would advise them to make the necessary enquiry, to ascertain if equally as valuable specimens could not be purchased from parties residing in their own country. To our certain knowledge a vast improvement in agriculture would be effected, if the choicest descriptions of grains and stock, fruit, &c., in the country, were generally in the hands of our farmers; and this great work of improvement can easily be accomplished, if only the agriculturists would become a *reading and thinking* community. Now, after all that has been said about agricultural improvement, this appears to be the grand fulcrum on which the lever is to be applied, or supported. If farmers will resolve pertinaciously, to adhere to preconceived opinions, without examining into the why and wherefore,—if they will not read and enquire into the causes and effects of results, which affect their honourable professions,—we can only say, to make the least of it, that they little know their own interests.

We are highly flattered, with the favourable reception that the *Cultivator* has received in the county of Northumberland, and trust that instead of 200 copies being taken by the Northumberland Agricultural Society, as was the case the past year, that 1000 copies will be subscribed for the present year by the County Society and the Branch Societies collectively, which they propose establishing this winter. If such a thing were practicable, in addition to the thousand copies that the farmers in this single county would receive, there would be about a thousand dollars in premiums to be distributed annually to the successful competitors, and through these two means alone, the stimulus for improvement would be so great, that the products of the country would very shortly be doubled. As an

additional inducement for our friends in that County, as well as other portions of the Provinces, to make a joint, united, and vigorous effort to place the *Cultivator* in the hands of every individual who is capable of reading, we would take this opportunity of informing them, that we have means at our disposal which will enable us to make our Journal one of the most useful, and practical and cheapest agricultural papers published in the English language.

In addition to the purchase of seeds, and valuable breeds of live stock, by agricultural societies, the most improved descriptions of farming implements might be purchased from the makers and sold to farmers or members of the societies at their original cost. We hold it to be an improvident expenditure of money, for an agricultural society to invest large sums of money for the purchase of any article of improvement unless there be a certainty of the money so expended reverting back to the society for the legitimate purpose for which it was subscribed and granted. It is, however, neither our wish nor province to dictate to the agricultural societies how they shall dispose of their funds; but, as a friend to agriculture, we feel no scruples in asserting that the money laid out in the purchase of seeds, live stock, and implements, by associations, might be returned to the societies for premiums, without diminishing the value or importance of the services rendered. First convince the members of the society, through the information obtained in the agricultural journal the necessity of improvement, and then we pledge our word for it, there will be a grand turn out to attend the public sales of articles imported for their benefit. There are many other points in the subjoined correspondence, which, if space would permit, we would feel a pleasure in offering a few remarks, but suffice it to say, for the present, that the public are under high obligations to Mr. Ruttan, for the very able manner in which he has brought this important subject before their notice.

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

Sir,—The writer of the letter of which the sub-

joined is an extract, is a gentleman extensively engaged in farming operations, and withal belonging to one of the learned professions, and president of the Jefferson County Agricultural Society, N. Y.

I presume no apology is necessary for introducing the subject of an improvement in our seeds to your readers; every observing man must be more and more convinced from the last two or three years' experiments, that our seeds are what is usually termed nearly "run out," and that an immediate effort should be made for their restoration, otherwise I am convinced that the effect will be ruinously felt within a very few years. The greatest benefactors to any agricultural country are those who introduce into it the greatest number of new seeds or varieties of grain or valuable breeds of stock. It is true, that now and then some public spirited individual here and there purchase some new variety, by which means the country is not as yet absolutely bankrupt; but we are now so run down, that this partial supply is manifestly inadequate; and a combined effort on the part of the Agricultural Societies, for the full attainment of this object has become absolutely indispensable.

The process of deterioration goes on surely, and yet so slowly, that none but the vigilant, active, zealous, and intelligent farmers, such as Mr. Clarke, can perceive its downward course; and it follows that none but such can be expected to make any effort to arrest its progress.

If our farmers generally were reading-men,—if they could be prevailed upon to spend two or three hours once a month to attend a township club or other meetings, for the discussion of agricultural subjects, all these matters might safely be left to themselves; but deplorable it is to say,—this is not the case as yet,—though I am happy to say, that a very great improvement in reading, which I consider the foundation upon which agriculture must rest, has taken place in this county within a year or two, as you are aware 200 copies of the *Cultivator* is taken by our society, where three years ago, not one was taken. To return from this digression: Mr. Clarke informs me that he sows one and a half bushels of the Odessa (or black sea) wheat upon an acre; and since he procured his twelve quart he believes that his county has made a clear gain, over and above what it otherwise would have raised, of one million of bushels!

Having successfully introduced several new breeds of cattle, our society intends devoting nearly all its available funds in the importation of new seeds for the next season, from Great Britain and the United States; and it is to be hoped that other agricultural societies will direct their energies to the same object. The gradual failure of the potatoe crop in Western and Northern America, should open our eyes to the necessity of immediate action; and it is not the potatoe alone which requires renewing, but the whole of our seeds, grains as well as grasses, are what is usually termed "run out."

The general introduction of new seeds is always,

and in all countries, a work of time. It has taken Mr. Clarke nine years to spread this wheat over his county since he got his twelve quarts; and do the best we can, we must expect to be nearly the same time in obtaining for it a general reception, so that not a moment is to be lost. With this district, in which the *Siberian* wheat has been introduced about five years, it is somewhat different from other parts of the province, as the *Black Sea* Wheat which is now being distributed will be about in time to succeed that; but with the province generally a united effort on the part of the agricultural societies only can save us from an incalculable loss; and if they do not now step forward in the matter, I can only say, that they are not carrying out the intention of their constitution by the Legislature in the magnificent aid which has been afforded them.

From what has been said, it is needless for me to add, that no opportunity should be lost—no expense spared by the farmers in procuring new seeds; if it be but “twelve quarts,” secure it at any cost; and although it may be as “bread cast upon the waters,” it will be found again an hundred fold increased in a much shorter time than may be generally imagined.

Cobourg Oct 31st, 1844

H. RUTTAN.

(Copy of Extract.)

H. RUTTAN, ESQ.,

Dear Sir,—In answer to your favor of the 10th October, 1844, I have to state, that nine years since I introduced the *Black Sea* Wheat into the county of Jefferson. It was imported the year before from *Odessa*. I obtained mine from the first crop of the importer.

It is a white chaff-bald wheat, with a strong stout straw.

I sowed twelve quarts (all I had) upon a piece of very well-prepared ground, on the 25th of May, and I obtained twelve bushels.

I sowed again, the 23rd of May the next year, and from an acre of the best, I obtained forty bushels. The next year, I sowed four acres in April; the ground was in the very best order, and I obtained two hundred bushels from the four acres. It was as stout a field of wheat as I ever saw. All these crops were raised in good ground, and under very high cultivation, and the seasons were favourable.

I have never failed to raise a good crop; it has never shrunk or been smutty under my cultivation, and my whole crops have averaged over twenty bushels to the acre. I consider it the best spring wheat that I have seen, as to quality, certainty, and quantity.

I never sow it except after a well hoed crop, though many summer fallow and sow the wheat in the spring. It is much less liable to rust than any other variety of wheat that I am acquainted with, which I attribute to its being about ten days earlier, and also to the strong firm straw.

We are troubled with the same disease with the potatoe; it prevails over several States;—it is no doubt an epidemic.

I intend to sow next spring, salt, say three pecks, on an acre, and put pulverised charcoal into the hills, also a little lime. I have observed a few hills where charcoal and lime had accidentally been spread, that the disease did not prevail.

In the meantime. I remain with great respect,
your obedient servant,

(Signed) CHARLES E. CLARKE.

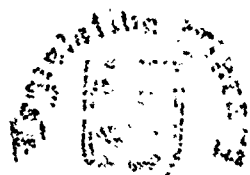
To make Good Bread.—To make good bread, good flour, good yeast, and good management are required. One of the simplest processes of making it is as follows: To 8 quarts of flour, add 3 ounces of salt, 1½ pint of yeast, and 3 quarts of water, of moderate temperature, and the whole being well mixed and kneaded, and set by in a proper temperature, will rise in about an hour, or a little more. It will rise better and more equally if the mass be covered. It must undergo a second kneading before formed into loaves for the oven. The more bread is kneaded the better it will be. Be careful not to allow it to become sour in rising. Milk will make white bread, but it will not be sweet, and dries quicker than when made with water. If loaves are lightly gashed with a knife around the edges before they are put into the oven, cracking will be avoided in baking. From an hour to an hour and a half is required to bake bread fully.—*Am. Ag.*

Useful Recipe.—I send you below, Messrs. Editors, a recipe for making a composition which will render wood entirely incombustible. It is very simply prepared, and quite easy of application, being used the same as paint with an ordinary brush. A good coat of it applied to the floor under the stoves would be an excellent precaution.

Take a quantity of water proportioned to the surface of wood you may wish to cover, and add to it as much potash as can be dissolved therein. When the water will dissolve no more potash, stir into the solution, first a quantity of flour paste of the consistency of common painter's size; second, a sufficiency of pure clay to render it of the consistency of cream.

When the clay is well mixed, apply the preparation, as before directed, to the wood; it will secure it from the action of both fire and rain. In a most violent fire, wood thus saturated may be carbonated but will never blaze.

If desirable, a most agreeable color can be given to the preparation by adding a small quantity of red or yellow ochre.—*Buffalo Com. Advertiser.*



CHEMISTRY MADE EASY FOR THE USE
OF THE AGRICULTURIST.

By the Rev. J. Topham, London, England.

In a late number of the *Farmer's Herald*, the editor acknowledges the receipt of a little work entitled as above, from which he gives a few extracts. If the following be a fair specimen of this practical work, we would like well to have the pleasure of its perusal, so that we might be able to condense the most important parts in the columns of the *Cultivator*.

The first quotation is of itself worth pounds to the practical farmer, as it will enable him to ascertain the amount of lime in the subsoil, which lies directly underneath the surface or active soil he cultivates. If his soil be deficient in this essential substance, and that portion of the subsoil which may be reached with the plough contains it in abundance, it is obvious that deep ploughing would be the cheapest and best mode of improving such land.

Where this soil abounds in neither the surface or subsoil, the skilful farmer will at once see the propriety of applying a dressing of lime or marl, the latter, if rich in carbonate of lime, would be the most economical, if it could be procured within a convenient distance from the farm for the mere expense of carriage.

Numerous beds of marl may be met with in various portions of the Province, being rich in carbonate and phosphate of lime and decayed animal substance, which are at present considered of no available value; by testing specimens of these marls as described, their richness in lime may be known, and a few experiments in a small way upon the various crops cultivated, would soon establish their value in the estimation of the experimenter.

"Dissolve any given quantity of marl, in diluted muriatic acid, pour off the fluid from the undissolved matter, and to it add a small portion of common potash, dissolved in water; lime, which makes it valuable, will be thrown down or precipitated, and the proportion present can be thus proportioned. The muriatic acid having a greater affinity for potash than for lime, deserts the latter, and combines with the former.

"In stables, wherein a powerful smell of hartshorn, (ammonia,) is perceptible; if an ounce of muriatic acid, (on a plate,) be placed therein, dense white fumes will be seen in its neighbourhood, which are devoid of all smell. This is muriate of ammonia. The acid having a strong affinity for this alkali, has attracted and retained it. And I here venture to suggest, that if in stables, the floors were occasionally sprinkled with water, containing muriatic acid, to the proportion of two ounces of the latter to a gallon of the former, the smell would be considerably destroyed, and the injurious influence of the ammonia, upon the horses, be greatly weakened.

"If an ounce of oil of vitriol, be poured into three separate wine glasses, and in the first there is inserted a piece of straw; in the second is placed a small portion of cork; and into the third, is dropped a lump of loaf-sugar; the three substances will become black; the straw appearing as if it had been charred by a fire.

"The oil of vitriol, (sulph. acid) has, in these three instances, united with the constituents of these several substances, except their carbon, which imparts the well-known black colour of charcoal to the parts remaining. In the instance of the sugar, which is composed of carbon and of water, it has merely abstracted the elements of the water, (hydrogen and oxygen,) and left the carbon untouched.

"If a small quantity of oak sawdust, well pressed into the bowl of a large tobacco-pipe, (the mouth of which is closely coated over with pipe-clay,) be submitted to the action of a clear fire, a species of vinegar, (pyroligneous acid,) will be distilled from the end of the tube, and charcoal be found remaining after the operation is concluded: which charcoal, when burnt in the open air, will leave a small residue of white ashes, containing potash and a very minute quantity of insoluble matter, consisting principally of lime.

"These latter mineral substances not being destructible by fire, are styled *inorganic* constituents of plants, whilst those which are resolvable into elementary bodies, and fly off to form new combinations, (as carbonic acid, &c.) are termed *organic* substances. Thus by ascertaining what are the elementary principles of which vegetable substances are constituted, we are enabled to form a tolerably correct opinion of the species of manure, that will best promote their health and vigorous growth."

Did you ever see a man prosper in business, who was in the habit of borrowing money at more than six per cent?

FARMERS' CLUBS

Gloucester;—The following paper on The Best and Cheapest Means of Carrying Stock through Winter during Scarcity of Hay and Roots, was read by Mr. Gyde, of Painswick, at the late meeting of this Club.

My object is to draw attention to those substances produced on the farm, which are capable of being substituted for hay and roots as food for cattle, and to point out the quantities which practice, as well as science, would indicate as equivalent to good meadow hay, in feeding properties. In a paper which I formerly read before you, I showed you how the doctrines of Animal Physiology might be applied to the feeding of cattle. It will be necessary to briefly review the leading points then alluded to. The body of an animal may be divided into three distinct classes of matter, namely, the muscular portion, including all those structures containing nitrogen; the fatty portion, which is devoid of nitrogen; and the earthy and saline portion, consisting of saline matter and bone. Until within the last few years physiologists supposed that the food underwent, in the stomach of the animal, some change during the process of digestion; that the stomach, in fact, had the power of making out of the Grass and roots taken as food, those substances of which its body was composed; this power they termed the *vis vitæ*. But the investigations of modern chemists show that no chemical alteration takes place in the constituents of substances during digestion, but that the elements of the animal body are prepared and elaborated in the vegetable. In the vegetable, we find a principle identical in composition with the muscle of the animal, and known as gluten, vegetable albumen and casein. We have carbon for combustion in the lungs to keep up animal heat, supplied in the starch, gum, and sugar of the plant; and we have also oil for the purpose of forming fat, with earthy and saline matter for the bone and blood; these substances are all that the animal requires, of which to build up its structure. This being admitted, it only becomes necessary to ascertain the amount of those constituents of the body daily thrown out of the system by the various channels of waste, to enable us to point out, with some truth, the quantities of each substance that is necessary to replace the daily loss in the animal economy: or, in other words, to say how much gluten and starch of the vegetable will be required to supply the waste of muscular and other constituents of the animal. Practice says that an ox requires 2 per cent. of his live weight in hay per day; if he works, he requires 2½ per cent.; a milch-cow, 3 per cent.; a fattening ox, 5 per cent. at first, 4½ per cent. when half fat, and only 4 per cent. when fat; or 4½ on an average. Sheep grown up take 3½ per cent. of their weight in hay per day to keep in store condition, and growing animals should never be stinted. Science has ascertained, by the most carefully-conducted experiments, that a full-grown man voids, in his urine alone, about ½ oz. of nitrogen every 24 hours, and that a small quantity passes

off in the solid excretions and by the skin. The carbon consumed by the lungs to keep up animal heat, averages about 11 ounces in the 24 hours; and the saline and earthy matter voided is in direct proportion to the amount taken in the food. It appears that the food consumed by an ox, horse, or sheep, is in direct proportion to their weights when compared with man. Hence we find that an ox would require, to replace the daily loss of muscular fibre, from 20 to 24 ounces of dry gluten or vegetable albumen which would be supplied in

120 lbs. of Turnips	17 lbs. of Clover-hay
115 lbs. of Wheat-straw	12 lbs. of Pea-straw
75 lbs. of Carrots	12 lbs. of Barley
67 lbs. of Potatoes	10 lbs. of Oats
20 lbs. of Meadow-hay	5 lbs. of Beans

The consumption of carbon by a cow amounts to 70 ounces; and that of a horse to 83 ounces on an average in 24 hours, which is supplied by the starch, gum, and sugar of the food consumed.—Fatty matter is required to supply the fat of the animal, and this also exists more or less abundantly in all vegetable food. Earthy phosphates and saline substances are found in the organic portion of all vegetables, and these supply the daily waste of bone, &c., of the body. Hence we see that the animal requires a variety of substances, all of which exist in greater or less abundance in its daily food. In one article of diet we find one substance in abundance, and in another other substances. Thus, farinaceous seeds are made up of starch and vegetable albumen or gluten, with much fatty matter and phosphates. In the oily seeds, as Linseed, Hemp-seed, &c., the predominating ingredient is oil, and matter called casein, which is capable of supplying muscle. In the Potato, starch is the ingredient in greatest quantity, combined with vegetable albumen. In the Turnip, sugar and gum supply the place of starch; and in the Grasses and Clovers, woody fibre with albumen, a little starch, and much saline and earthy matter. From a knowledge of these facts, with the assistance of the accompanying Tables, which show the quantities of water, woody fibre, starch or gum, gluten, albumen or casein, fatty matter, and saline matter, contained in 100 lbs. of most of the products of the farm (See Table, No. 1,) and the amount of these constituents contained in the produce per acre (see Table, No. 2,) the judicious feeder will be enabled so to mix those crops which he has at his command as to render everything available as food. He may keep his stock in condition by supplying with gluten, starch, and saline matter, the natural waste of the body, or he may fatten, by increasing the amount of food, particularly those articles containing much fat; always remembering that a mixture of food is better than adhering to one article of diet, since it rarely occurs that one contains all those substances required by the animal, and without which healthy and vigorous life cannot be sustained for any considerable time.

TABLE I.

Showing the Composition of 100 parts of the more commonly cultivated crops.

	Water.	Woody Fibre.	Starch, Gum, or Sugar.	Gluten or Albumen.	Fatty Matter.	Saline Matter.
Wheat	16	15	55	10 to 15	2 to 4	2.0
Barley	15	15	60	12?	2.5	2.0
Oats	16	20	50	14.5	5.6	3.5
Rye	12	10	60	14.5	3.0	1.0
Indian Corn	14	15	50	12.0	5 to 9	1.5
Beans,	16	10	40	28	2	3.0
Peas	13	8	50	24	2.8	2.8
Potatoes	75	5	12	2.25	0.3	1
Turnips	85	3	10	1.2	8	1
Carrots	85	3	10	2	.4	1
Meadow Hay	14	30	40	7.1	2 to 5	5 to 10
Clover Hay	14	25	40	9.3	3.0	9
Pea Straw	10 to 15	25	45	12.3	1.5	5
Oat Straw	12	45	35	1.3	.8	6
Wheat Straw	12 to 15	50	30	1.3	.8	5
Barley Straw	do	50	30	1.3	.8	5
Rye Straw	do	45	38	1.3	.5	3
Indian Corn Straw	12	25	52	3.0	1.7	4

TABLE II.

Average Produce of Nutritive Matter of different kinds from an acre of usually cultivated crops.

	Gross Produce.		Huck, or Woody Fibre.	Starch, Gum, or Sugar.	Gluten.	Fat.	Saline Matter.
	bush.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Wheat	25	1500	225	825	150 to 220	30 to 60	30
Barley	30	1800	270	990	180 to 260	36 to 72	36
—	35	1800	270	1080	216	45	36
Oats	40	2100	315	1260	252	52	42
—	40	1700	340	850	230?	95	60
Rye	50	2100	420	1050	290?	118	75
—	25	1300	130	780	190	40	13
Indian Corn	30	1600	160	960	230	48	16
Suckwheat	30	1800	270	900	216	90 to 170	27
Beans	30	1300	320?	650	180	5	21
—	25	1600	160	640	450	32	43
Peas	30	1900	190	760	530	36	57
—	25	1600	130	800	380	45	45
	tns.						
Potatoes	6	13,500	675	1620	300	45	120
—	12	27,000	1350	3240	600	90	240
Turnips	20	45,000	1350	4500	540?	?	400
—	30	67,000	2010	6700	800?	?	600
Carrots	25	56,000	1680	5600	1120?	200	560
Meadow Hay	1½	3400	1020	1360	240	70 to 170	220
Clover Hay	2	4500	1120	1800	420	135 to 225	400
Pea Straw	—	2700	675	1200	330	40	135
Wheat Straw	—	3000	1500	900	40	15	150
—	—	3600	1800	1080	48	18	180
Oat Straw	—	2700	1210	950	36	20	135
—	—	3500	1570	1200	48	23	175
Barley Straw	—	2100	1050	630	28	16	105
—	—	2500	1250	750	33	20	125
Rye Straw	—	4000	1800	1500	53	20	120
—	—	4800	2200	1800	64	24	145

TABLE III.

Showing the relative value of different articles of Food, as ascertained by practice; good meadow Hay being taken at 100.

Hay	100
Clover Hay	80 to 100
Green Clover	450 to 500
Wheat Straw	400 to 500
Barley Straw	200 to 400
Oat Straw	200 to 400
Pea Straw	100 to 150
Potatoes	200
Old Potatoes	400
Carrots	250 to 300
Turnips	500
Cabbage	200 to 300
Peas and Beans	30 to 50
Wheat	50 to 60
Barley	50 to 60
Oats	40 to 70
Indian Corn	50
Oil Cake.	20 to 40

The above Table represents the average results from a number of experiments made in France and Hollaud.

TABLE IV.

Showing the amount of different articles of food of equal value as indicated by theory; good meadow Hay being taken at 100.

Hay	100
Clover Hay	80
Vetch Hay	40
Wheat Straw	520
Barley Straw	520
Oat Straw	550
Pea Straw	60
Potatoes	280
Old Potatoes	400
Turnips	600
Carrots	350
Cabbage	300 to 400
Peas and Beans	20 to 30
Wheat	50
Barley	60
Oats	50
Indian Corn	60
Oil Cake	20

This Table represents the supposed value as food of the different articles, calculated from the amount of muscle-forming principle, they are capable of yielding to the animal.

Maple Sugar.—The science is very imperfectly understood, and great improvements can and ought to be made in the manufacture of it. The difference in the yield of sugar from a given quantity of sap, is owing to its possessing more or less acid, which lessens the quantity of sugar and injures the quality. This acid is corrected by putting into the sap when used, one ounce of Lime Water to every gallon, when it will uniformly produce half a pound of sugar to the gallon, of better quality than it would without the lime water.

THE ARTICHOKE.

Several trials which we have known made with this root, indicate that it is one of the most valuable for stock, which can be cultivated. A few years ago, a gentleman of our acquaintance planted a small patch of rich ground with them. The produce was at the rate of 1,200 bushels per acre. They were principally harvested by hogs, which were turned in and allowed to root them up as their appetite prompted. They gained well, with no other food, while the artichokes lasted. A great advantage of this root is, that it will lie in the ground without injury all winter.

Mr. Thomas Noble, of Massillon, gave us a brief account of a trial with artichokes, made by him the past season. In April, 1843, he planted two acres with this vegetable. The ground was of a medium quality. The artichokes were planted in rows 2½ to 3 feet apart—using a little more seed than is commonly used in planting potatoes. As soon as the frost was out of the ground last spring, (1844,) the digging of them was begun and continued as the stock required. The produce of the two acres was 1500 bushels. They were fed principally to sheep, though some were given to cattle, horses, and hogs. All animals ate them well, seeming to prefer them to turnips. While the sheep were being fed with them, they were pastured on growing wheat and clover. The shepherd thought the wheat and clover sufficient for them, as there was a full "bite," and he accordingly discontinued the artichokes. The ewes "fell off" in their milk, and the lambs soon showed that they were not doing so well. The artichokes were again given, and they soon did as well as ever.

Mr. Noble also used the tops for fodder. He cut them in October, just before frost came, dried and housed them. They were fed to the stock in winter, and were evidently preferred to corn fodder.

Mr. N. is so well pleased with artichokes, that he is raising them this year on a large scale. They require but little cultivation; it being only necessary to keep the ground clear of weeds till the artichokes get a good start.

Mr. T. M. Johnson, of Greensboro, Alabama, lately informed us, that he is this year growing 30 acres of artichokes. He considers them the most profitable vegetable he can raise. In that climate they can be dug any time in the winter.

There are several varieties of artichokes, but that called the Jerusalem artichoke (*Helianthus tuberosus*) is considered best. From the fibres of the tops or stems, a cordage is sometimes manufactured in some part of Europe.—*Alb. Cult.*

Manure for Melons.—The best is pigeon dung; and from the use of this, it is said the Persian fruit derives its superiority. Hen dung is probably next in value, and after this, guano, which is the manure of sea fowls.—*Am. Ag.*

CURING AND PACKING PROVISIONS.

Circular.

The experience we have had in the Produce Business assures us that a few hints on curing and packing provisions for the English market, will be interesting, and probably of value.

Any improvement in these matters will be amply repaid by the more speedy sale and higher prices which the articles would command, even for home consumption. But the importance of the improvement is greatly increased by the fact, that the demand for provisions for Europe is steadily increasing; and that for the West India, the South America, the East India markets, is always large, and ordinarily requires those which are best cured and packed. It is our intention to enlarge our operations with foreign buyers; and if those in the country who send us their articles for sale will be careful in curing and packing them, the interests of all parties will be advanced.

An American gentleman who has paid much attention to this subject in England, thus writes:

"Pork is cut into four or six pound pieces, according to the size of the hog. Where the carcass weighs two hundred and fifty and under, it is cut into four-pound pieces; large hogs are cut into six-pound pieces. The hog is first split through the back-bone in half; then passed to the trimming block, where the half-head and legs are cut off, the leaf and tender loin taken out, and the whole side split lengthwise through both the shoulder and ham, and as near the centre as is consistent with the proper shape and size of the different pieces. From the trimming block the strips pass to the scales, where the weight is ascertained, and called to the man at the cutting-block, who divides each strip into the requisite sized pieces. Both the splitting and piercing require skill and judgment, as much depends upon having the pieces well and sizably cut. From thence it goes to the rubbing-table, where each piece is thoroughly rubbed in salt in the same manner as in curing bacon. After the salt has been well rubbed in, it is put into pickling tubs, holding from three to five hundred pounds, well covered with salt, but no water or brine added. Here they remain from eight to ten days. It is then taken to the washing trough or vat, where each piece is thoroughly washed in clean brine, trimmed, and *tormented*, as the process of trying is called. The *tormentor* is an instrument of wood or metal, the size of a small dish, and is thrust into the lean parts of each piece, to ascertain that it is properly cured and free from taint. It is then messed and weighed, so that the requisite number of pieces shall weigh exactly the number of pounds for the barrel or tierce. It is then put up in the proper package, and nicely salted while packing, and saltpetre added at the rate of a common wine-glass full to the hundred pounds. The last layer is pounded in by a heavy iron weight, and capped with coarse salt. It is then passed to the cooper who puts in the head, and puts on to the barrel one, and on to the tierce at least three iron hoops at each end. The package is then filled with

clean strong brine, bunged tight, branded, and is then ready for market."

"The great utility of this method of curing consists in the certainty of the meat keeping in good condition for years in any climate. The blood gets all drained out of the meat before it is barreled, and hence one great cause of injury is avoided. I saw pork and beef which had been two years in the barrel, which was as sweet as when first put up, and the brine was perfectly clear. A friend in London unpacked several packages of Irish and Hamburgh cured provisions by the side of the American. The contrast was any thing but flattering to our taste and skill. I could very readily see why our beef and pork bore so bad a name in the market, and was so much of a drug. The meat was not inferior, but it was badly messed, worse cut and cured, and the brine nearly as red as blood, and presenting, by the side of the other, not a very palatable appearance. The large hogs, or heavy pork, which is uniformly cut in six-pound pieces, is packed in tierces, and is then called India or Navy pork. The four-pound pieces are put in barrels."

"A barrel of prime pork should contain from 25 to 30 pieces, cut from the ribs, loins, chines, and belly pieces, all lying between the ham and shoulder, forming what is called the broadside or middle. Three hands and two hind-leg pieces, or three hind-leg pieces and two hands, and fifteen or twenty pieces from other parts of the hog, except no part of the head. The meat must be of prime quality, firm, and well fattened, cut into four-pound pieces, exactly fifty to the barrel, and weigh not less than two hundred pounds nett, and must have a good capping of St. Ubes, or other coarse salt. This is indispensable. Bacon mess pork is so called when the full proportion of prime pieces in prime mess is withheld; there are, therefore, various classes of bacon pork. Tierces contain the same number—that is, fifty pieces of six-pounds, and the same rules as to messing are to be observed as in the barrel. The tierces must have not less than three hundred pounds, and well capped with salt. It is usual to put in fifty-two pieces. In bacon mess, the number of prime mess pieces should be marked on the head. No part of the hog's head is allowed in any instance.

Beef is uniformly cut into eight-pound pieces, and cured, in all particulars, precisely as pork, except a larger proportion of saltpetre is used packing. Beef is almost entirely packed in tierces. For export, tierces only should be used.

"A tierce of prime India beef should contain forty-two pieces, eight pounds each, and weigh not less than 336 pounds nett. It should be made from well-fed bullocks, and contain 32 pieces of loins, flanks, rumps, plates, buttocks, and briskets; ten pieces, consisting of four chines, two mouse buttocks, two shells of rumps, two pieces cut close up to the neck, with bone taken out; no shins, thigh-bones, or necks. To be well salted, and capped with St. Ubes, or other coarse salt.

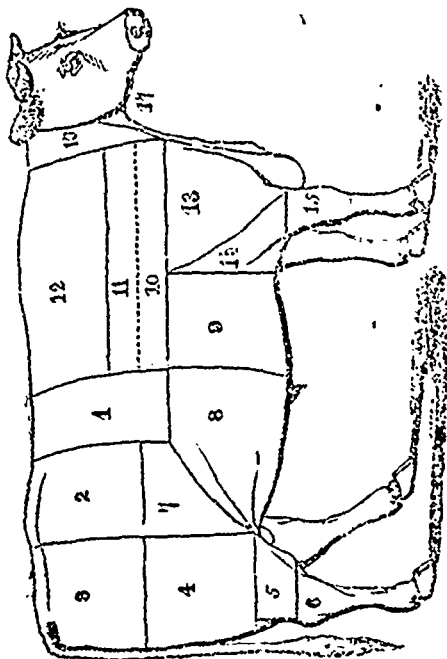
"A tierce of prime mess beef should contain 38 pieces of eight pounds, and weigh not less than

304 pounds nett. It should be made from prime fat cows or heifers, 28 pieces of prime, from loins and chimes, with one rib in each, flanks, rumps, plates, briskets, and buttocks, with ten coarse pieces, consisting of two-neck pieces, not the scrag, two thighs or buttock bones, with some meat to them, two shells of rumps, two or even four chimes, not cut too close to the neck, and two shoulder pieces with part of blade bone in them, well salted and capped with St. Ubes or other coarse salt. The tierces, whether for beef or pork, must be made of well seasoned oak, with eight wooden, and three iron hoops on each end.

"No pains to be spared in preparing and putting up, as the neat and tasty appearance of the packages will insure a more ready sale than if put up in a slovenly manner."

It may be useful to see the mode of cutting up the carcass of an ox in London. The provisions exported from that metropolis rule the trade in the West India Islands, and in other distant places abroad. It is very proper, therefore, that American packers should understand the English methods.

The annexed cut will show the London mode :

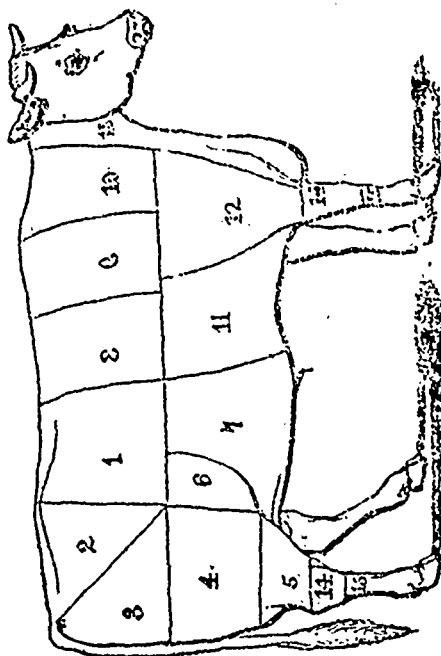


Hind-quarter—1, loin ; 2, rump ; 3, itch or adze-bone ; 4, buttock ; 5, hock ; 6, thick flank ; 7, thin flank, 8, fore-rib.

Fore-quarter—9, middle-rib ; 10, chuck-rib ; 11, brisket ; 12, leg of mutton piece ; 13, clod and sticking and neck ; 14, shin ; 15, leg.

"The relative value of these different cuts of an ox may be stated at their current value, viz : when the rumps, loins and fore-ribs of a fine ox fetch 8d. a pound, the thick flank, buttock and middle-rib will fetch 6d ; the itch or adze-bone, thin-flank, chuck-rib, brisket, and leg of mutton piece, 5d. ; the clod and sticking, and neck, 3d. ; and the legs and shins 2d. a pound. Such is the difference in value of the different cuts of an ox in the meat markets in London. As an object of comparison,

we shall also give a figure of an ox cut in the Edinburgh method, as in figure 2, and the great difference between both methods may be seen at a glance. Fig. 2.



Hind-quarter—1, surloin, or back-eye ; 2, hock-bone ; 3, buttock ; and 4, large round-rump ; 5, small-round ; 6, hough ; 7, thick-flank ; 8, thin-flank ; 9, nine-holes.

Fore-quarter—10, large runner ; 11, small runner ; 12, square-rib, or fore-sye ; 13, brisket ; 14, shoulder-lyer ; 15, nap, or shin ; 16, neck ; 17, sticking-piece.

"It is therefore obvious that of the two methods of cutting up beef, London affords much more of the more valuable pieces out of the same carcass ; and of course more money would thereby be realized from it.

"It is well to observe that the greatest attention should be paid to making the brine or pickle whether for beef or pork. Pure water should be used in its manufacture ; for the sediment from that which is impure, will settle down upon the meat, and give it a bad colour and a slimy feel. Where river or rain water is used, (and soft water should always be preferred,) it would be exceeding desirable to filter it through sand, or at least to strain it. A great deal of beef and pork is utterly unfit for exportation by the use of unfiltered water in making the brine.

"In packing provisions, the tierces, barrels, &c., should be made with great care and neatness. Clean, handsome ash staves are preferred, and of such other hard, close-grained wood as will not stain the meat. Tierces should have four iron hoops, or three—one at each bilge and one at each chime ; barrels with an iron hoop at each chime. The fuller hooped the barrel or tierce is the better."

We beg you to understand that we confine ourselves solely to the Produce Commission Business, standing between the seller and purchaser, and

never buying or selling on our own account. It is, therefore, for the interest of all parties to have our consigners send us the best articles—those which the consumer and the shipper and the foreign merchant can confidently rely on. It is time that the poorer provisions were driven out of market by those of a high character—the more especially when our country has the means of furnishing those which cannot be surpassed by any in the world.

The country merchant can send any description of produce to us, and be assured of a ready sale at the top of the market, as it will not pass through the hands of brokers, but receive the personal attention of some one of our firm. Returns will be made according to the instruction of consignors.

There is another branch of business which falls within our province, and to which we cannot too confidently call the attention of our country merchants, as our facilities are peculiarly adapted to its prosecution. We refer to the buying of merchandize in this city for the country merchant. It frequently happens that merchants wish to replenish their stocks without the expense of a journey to New York, especially if their stocks run low in mid-winter and mid-summer. By sending such orders to us, they will be filled on as favourable terms as if the merchant himself were on the spot, as the extent of our commission purchasers will make it the interest of the dry good, grocery, hardware, and crockery ware merchants and druggists to fill our orders on the best terms. The proceeds of produce shipped to our address can be applied to the purchase of goods as above, if the consignors wish it. This branch of our business cannot fail of being convenient to the country merchant; and we respectfully urge him to make one trial of it, to see the advantages we offer him. Any goods which we may thus purchase may be relied on for their quality, styles, and adaptation to the wants of the country for which they may be ordered.

Your obedient servants,

HITCHCOCK, LIVINGSTON & Co.
No. 78. Cortlandt-street.

—N. Y. Far. and Mec.

[FOR THE CULTIVATOR.]

CURING OF HAMS AND BACON.

I have often been surprised that the practice of curing hams and bacon by steeping them in brine, should be so prevalent as it is. Many farmers seem to think it is the simplest and most effectual manner of preserving them; but the system of dry-salting is equally advantageous on this ground,—besides that it preserves to the meat a very superior flavour and appearance. In most of the directions for curing hams and bacon in this way which I have seen, there is such a labour of turning, and rubbing, and

scrubbing insisted upon, that perhaps after all there is not so much room to be surprised at so many farmers adhering to the pork barrel. However this labour is perfectly unnecessary; and I have found from experience that the following method is quite sufficient to secure every purpose that can be required.

The pig having been slaughtered in a proper manner—the carcass is next day separated up the middle of the back bone, into two equal halves. Then cut the hams from the sides by the second joint of the back bone, which will appear on dividing the carcass—and dress them by paring a little off the flank and shinny part, so as to shape them with a half round point, clearing off any top fat that may appear. Next proceed to cut off the sharp edge along the back bone, with a knife and mallet and slice off the first rib next the shoulder—where will be found a bloody vein which ought to be drawn out—or otherwise that part will be very apt to spoil. The corners of the sides where the hams have been cut off should be squared. This being done, give the hams and fitches, as the sides are called, a slight pounding of salt, and let them remain until the next day, when a considerable quantity of blood will have drained off, and they will be in a much better state for curing. In order to effect this, it is only necessary to lay them in a trough or on an inclined board, first sprinkling some common brown sugar on the thickest parts of them; next comes a sprinkling of about half an ounce of finely powdered saltpetre on each ham; and it is well to give the fitches a little also, and over all place a good covering of salt—there is no necessity for “rubbing it in,” the effect of the salt will be sufficiently apparent in due time, without any mechanical action of that kind. And now covered with a course cloth, both hams and fitches are to remain undisturbed for the space of two weeks; they are then to have their covering of salt alone renewed, and their position is to be reversed,—that is to say, those hams and fitches which have been laying at the bottom are to be placed at the top, and those which were at the top are to be put at the bottom. But in every case it must be observed that they are to rest upon the skin or rind part. At the expiration of another fortnight they will be in a fit state to hang up, or smoke; although generally I think it is more prudent—particularly if the pigs have been large—to allow them remain in salt for six weeks—only taking

care to give them an additional turning. They must now be hung up in some place where they will dry—a moderately warm kitchen will answer well. When the warm weather approaches in spring, an insect will make its appearance upon them, and would soon perforate them in all directions if allowed to remain exposed. They must, therefore, be packed away for summer use in boxes or casks, and covered with oats—some people use ashes I observe—but I have found nothing answer so well as a covering half an inch thick or so of lime, which has been kept dry, but exposed to the atmosphere for a few weeks or months. It must be kept in mind that the trough in which the meat is salted should be so contrived that the brine which is formed will all drain away.—I would strongly recommend the use of the sugar, for in the first place it assists very materially in preserving the meat; and secondly it corrects the extreme pungency which is often occasioned by the too free use of salt. It has also a good effect on bacon; and I have no doubt that molasses might be used with advantage in the pickling of pork. Some people may prefer pickled pork from the barrel to bacon; but no one I think can feel to acknowledge that hams cured in the way just described, are infinitely superior in flavour to those soaked in a brine barrel. And I have never known a ham or sitch treated in the manner I have described, fail of being cured.

London, C W. Nov. 18th 1844. W. E.

TO COLOR SCARLET.

Bouillon, or Coloring Bath.—For every pound of cloth or wool, take 14 drachms of cream of tartar, (put into a convenient quantity of water.) When the bath is boiling and the tartar all dissolved, add 14 drachms of solution of tin (*Tin Mordant*, which see below) and let the whole boil together during a few minutes. Now introduce the cloth, and boil it for two hours; then take it out and let it drain and cool.

Rougie or Finishing Dye.—(Three modes of preparing this are given, either of which may be selected.) For every pound of woollen stuff take 2 drachms of cream of tartar. When it begins to boil, add 1 ounce of cochineal reduced to a fine powder, stir the mixture well with a rod of willow or any white wood, and let it boil for a few minutes. Then pour in by successive portions, 1 oz. of solution tin (*Tin Mordant*), stirring continually with the rod. Lastly, dye as quickly as possible. The color will be a beautiful scarlet.

Second Scarlet process.—The Bouillon or coloring bath, the same as above given, and always estimated for one pound of stuff.

Rougie or Finishing Dye.—Take 1 ounce of cochineal in fine powder, and two ounces of *Tin Mordant* without tartar.

Third Scarlet process.—The *Bouillon* being as above. *Rougie.*—For a pound of woollen stuff—take two drachms of cream of tartar, one ounce of cochineal, one ounce of solution of tin, and two ounces of sea salt, dye as in process first. The salt, it is said, helps the dye to penetrate into the cloth.

Tin Mordant for dying Scarlet.—Pour into a glass globe, with a long neck, 3 parts of nitric acid at 30 deg. and one part of muriatic acid at 17 deg.; shake the globe gently, avoiding the corrosive vapors, and put a loose stopper into its mouth. Throw into this nitro-muriatic acid one-eighth of its weight of pure tin, in small bits at a time. When the solution is complete and settled, decant it into bottles and close them with ground stoppers. It should be diluted only when about to be used. When the tin compound is prepared as above directed, it may be depended upon. The following is often used by dyers, but is an inferior article.

Mix one pound of nitric acid with one pound of water, and dissolve in it an ounce and a half of sal ammoniac. Stir it well, and add, by very slow degrees, 2 ounces of tin turned into thin ribbands upon the lathe.—*Ure's Dict. on Arts.*

Good Butter.—The great point in making good butter, and that which will keep, is the freeing it from all buttermilk: and if everything else is well done, if this point is overlooked, good butter is impossible for any length of time. The mixture of milk in any degree with the butter is sure to produce frowsiness or an unpleasant taste to the butter; and the entire freedom from this constitutes the grand secret of making good butter. There are many who think washing butter with water incompatible with retaining the rich flavour, but if the water is cold and pure it is scarcely possible anything could be washed away, the buttermilk which destroys the flavour of all butter excepted! Besides, the best butter in the world, and that which in all markets commands the best price, viz., Dutch butter, is invariably made in this way; and where the example has been followed by others, it was rarely failed of success. If any, however, doubt the propriety of washing butter, they may use any method they choose, provided the milk is separated perfectly. Perfectly free from the substance that causes it to assume the putrid frowsy taste of bad butter, it may be kept with almost as much ease as tallow; solidity in packing, clean, sweet vessels, and a low temperature, will ensure its keeping for any reasonable time. Let no one expect good butter, however, so long as the coarse impure salt is used: or a particle of the buttermilk is allowed to remain in it.—*Am. Ag.*

Buckwheat Cakes.—Are less tough and not as liable to sour, when mixed with *salt-rising* instead of hop yeast.—*Am. Ag.*

ADVICE TO FARMERS' DAUGHTERS.

I again take up my pen in continuation of the matters on which I last talked to you. I wish to give you a few notions on the education, I think most necessary for young ladies,—the effect it should have on the character, or rather the character it should form. If I were to ask you, who of your acquaintances are well educated, you would perhaps specify some whom you consider to be perfectly so. You will say such a one is pleasant and graceful in her manners, sings, plays, and dances in the most approved and newest style,—speaks French, draws, paints, and needle-works to perfection, tells of Botany, Chemistry and Philosophy,—knows all the new fashions, beaux, and talks to them without the least bashfulness, or blushing. No doubt many of those accomplishments are pleasant and agreeable; and you will perhaps think me disposed to find fault when I tell you a woman may be possessed of them, and even more than you mention, and still, in my opinion, be entirely deficient in true and correct education.

If you enquire in what good education does consist? I answer, that it is not that course of study alone, that enables a woman to count up her accomplishments, and display them on every possible occasion; but it is that training which improves the heart as well as the mind and manners; in a word, that tends to perfection of character, moral, physical, and intellectual. An education that does less than this, is not correct education; it is oftener mis-education. Of what avail are all the accomplishments of earth; if our sex do not with them also possess those gentle and affectionate dispositions, that so much promote the happiness of those with whom they are connected. Do you think it affords much pleasure to a husband that his wife can at times, send forth notes of witching melody, while at others, when no stranger is near to listen, she can address him in the rough tones of anger and contempt? No, her music will never give happiness to his heart, it will never cause it to vibrate with pleasure or tenderness—he listens not to the song of the charmer, charm she never so wisely. Better had it been for her to tune her heart to the soft notes of constant affection, than for her voice to be skilled in the magic notes of song—sweet though they may be.

Then it is one of the most important parts of education that woman learn to govern her temper, to subdue every incorrect feeling and habit, and thus accomplish her *heart*, at the same time, she is improving the mind; and let me say in passing, that by cherishing amiable dispositions the countenance is also greatly beautified, and the voice made better. A soft, low voice, coming from a heart full of kindness, is a lovely thing in woman. Let me say to you, that if you have no rule over your spirit, if you cannot school it to bear patiently the ills of life, you are indeed uneducated, even though you may have passed through the whole circle of science. Cleopatra the ill-fated Queen of Egypt, early applied herself to the acquisition of knowledge, she spoke nine or ten different lan-

guages, and possessed every accomplishment in perfection; still she was far from being educated—she could not control her furious and headstrong passions—she could no more rule her spirit, than she could still the ocean's wild flood. Are you not acquainted with some whom you consider educated, who are too useless to attend to the every day duties of life, even if by so doing, they could relieve the cares of a sick or weary mother; you know some, who hate to go about and do good, who take no pleasure in helping a sick neighbour, or in alleviating the sorrows of the afflicted. If a woman's heart prompt her not to do all in her power to soothe the sufferings of her fellow-creatures, the first part of her character is uneducated—the affections are untrained, uneducated. True education, then, according to my notion, is that training which teaches us to do our duty in life. It teaches to be meek, humble, and useful—never puffs up its possessor with pride, vanity or haughtiness; but enables us to act with ability and prudence in every situation; or, in other words, leads to the formation of pure and good characters.

Before I go farther I would say, I do not wish you to think I am opposed to any of the innocent accomplishments of the day. On the contrary, I consider them calculated to refine and improve the mind. My only objection is, that they receive more attention than matters of greater importance. In many cases, in our part of the country, the fingers receive more training than the heart—the heart that should be the seat of all the noble affections of humanity. I can point out mothers who urge upon their daughters the necessity of practicing on the Piano for hours every day, while by their example they encourage them in a course of deceit and insincerity—but I digress.

There is a part of the education of girls, I think much neglected, although absolutely necessary: that they should attend to it, as agreed by most reflecting persons. It is the part that relates to household concerns. I expect you guessed I was coming there soon. Now for those of you who intend never to be married, it does not make much difference; but for all who have the least idea of being mistresses of families, it is most important you should early learn every thing you will wish to practice in after life. You know, in music, without a great deal of practice, you cannot execute with skill and judgment—there will be many false notes, jars and discords. It is just so in the every day music of life; if you do not practice these by times, you will be apt to play out of time, there will be but little melody in your chords, and you will have discords that will last through the whole piece. I know girls who ought not to marry. They are as perfectly ignorant of domestic affairs as children. Some declare they would not know how to bake corn bread; biscuit are entirely above their ken. Some of these girls go to school, study many books, are fond of costly clothing and all fashionable doings; but as to any thing useful, it is out of the question. I consider such women totally uneducated; and to those who are so unfortunate as to choose them

as partners through life, they are a trouble and a —but I will not say any thing hard about the girls; they would do right if their parents would teach them.

I always advise my acquaintance never to marry girls who boast they cannot do this, or they cannot do that. It so clearly manifests a want of good sense and good education, that there is little prospect of future usefulness.

There is an old bachelor away off down east, talking in the Boston *Cultivator* about these matters. He advertises for a wife, and describes the requisite qualifications; and, although they are in poetical form, I will give you the old gentleman's cogitations. After other things he says:

"I'd have—let me see—no I'd not have a beauty,
For beautiful women are apt to be vain:

Yet, with a small share, I'd think it a duty
To take her, be thankful, and never complain.

Her form must be good—no art to constrain it,
And rather above than below middle size;

▲ something—it puzzles my brain to explain it—
Like eloquent language must flow from her eyes.

She must be well bred, or I could not respect her;
Good natured and modest, but not very coy;

Her mind well informed—'tis the purified nectar
That sweetens the cup of hymeneal joy.

Her home she must love, and domestic employment,

Have practical knowledge of household affairs,
And make it a part of her highest enjoyment

To soften my troubles and lighten my cares.
No fortune I ask: for I've no predilection

For glitter and show, or the pomp of high life;
I wish to be bound in the cords of affection—

And now I have drawn you a sketch of a wife.
If any possess the above requisitions,

And wish to be bound with the conjugal band,
They will please to step forward, (they know the conditions.)

Enquire of the printer—I'm always at hand."
This bachelor, you see, accords with me in my notions of education. He wants a lady possessed of some practical goodness and knowledge; he wishes an assistant in the school of life.

In the same paper, there is another bachelor speaking of the same subject. He says:

"I want to know the inward state
And temper of her mind,

If she will pout, or rage, or fret—
Be gentle, or unkind;

If her discourse is calm and staid,
And judgment rule her life—

Nonsense may charm us in a *maid*,
But never in a *wife*."

From the old bachelors beginning to speak out so plainly, there must be a scarcity of properly educated ladies. I hope, if you have not formerly thought of these matters, you will turn your attention to them and strive to train yourselves by acquiring useful knowledge, and by putting it in practice, so that you may be well educated, or what is the same thing, useful and practical women.

—*Tennessee Ag.* Your friend. LUCY.

Saltpetre on Seeds and Plaster on Flowers.—Hart Mussy, Esq. of this village, took a small portion of the corn with which he planted a field, and soaked it in a solution of salts of nitre, commonly called saltpetre, and planted five rows with the seed thus prepared. Now for the result: The five rows planted with corn prepared with saltpetre, yielded more than twenty-five rows planted without any preparation. The five rows were untouched by the worms, while the remainder of the field suffered severely by their depredations. We should judge that not one grain saturated with saltpetre was touched, while almost every hill in the adjoining row suffered severely. No one who will examine the field can doubt the efficacy of the preparation. He will be astonished at the striking difference between the five rows and the remainder of the field.

Mr. M. also stated the result of another experiment. He has a fine, thrifty, healthy apple tree, about twenty-five or thirty years old; but it has never, in any one year, produced over about two bushels of apples. While in blossom last spring, he ascended the tree and sprinkled plaster freely on the blossoms, and the result is that it will this year yield twenty bushels of apples.—*Concordia Intelligencer.*

For three years we have published from time to time experiments and statements showing the value of the saltpetre soak for corn and other seeds, and yet probably not one-tenth of our readers use this or any other soak. For several years we have soaked all our corn with the most gratifying results. None of it has ever been touched by the grub, against which we, therefore, regard the saltpetre as a perfect protection, and it grows with a rapidity that shames the sluggishness of grass and weeds. We planted some corn this year, on the 6th of May, soaked as usual, and in just twenty-eight days it stood twenty-two inches high—ground rich but not manured this year. A pound of saltpetre in enough water to cover a bushel of corn is about the proportion.—*Louisville Jour.*

THE AMERICAN FARMER.

A homely Ballad borrowed and altered from
the "Old English Farmer"

Here's a health to the farmer who tilleth the
land,
Made the best and the wisest on earth, by his
hand,
You may roam the wide world, but there's
nought to be seen
That can rival the American farmer I ween,
Derry down, down,
Down derry, down.

What life is so sweet? he's up with the sun,
He hears the day's music so sweetly begun
By robin and swallow and lark and cuckoo,
And sees the green lawn besprinkled with dew.
Derry down, &c.

While sluggards in cities, 'mid tumult and strife,
Lose all the best part of this quick fading life,
He breathes the free air at morning's first ray,
And lives twice as long as they do, each day.
Derry down, &c.

He rules every station from castle to cot,
By the high and the lowly he's never forgot,
The poor and the rich man together agree
That without him their lives most wretched
would be.

Derry down, &c.

Look around you—what treasures his riches
unfold,
His granaries filled with those sheaves of bright
gold,
His pens and his pasture all breathing with life,
And his home far away from all passion and
strife.

Derry down, &c.

Then a health to the farmer who lives on the
land,
Made the best and the wisest on earth, by his
hand,
You may roam the wide world, but there's
nought to be seen
That can rival the American farmer I ween.
Derry down, down,
Down derry, down.

Disease in the Stomach of Cattle.—Mr. J. DEVEREUX, of Raleigh, North Carolina, wishes some information in regard to a disease by which he lately lost a valuable Devon bull. *Apost mortem* examination showed the third stomach or manfolds, "crowded with food until it was as hard as a pressed cotton-bale." In relation to diseases of this organ, Mr. Youatt says—"It will always be proper to bleed, in order to diminish any existing fever, or to prevent the occurrence of that which continued disease of this important stomach would be likely to produce. To this should follow a dose of physic, in order to evacuate the intestines beyond the place of obstruction, and by its action on

them, possibly to recall this viscus also to the discharge of its healthy function. The Epsom salts, with half the usual quantity of ginger, will form the best purgative; and it should be administered either by means of a small horn, or the pipe of the stomach-pump introduced half way down the gullet, and the liquid very slowly pumped in. By this cautious method of proceeding, the pillars on the œsophagean canal will probably not be forced open, and the liquid will flow on through the passage still partially open at the bottom of the manupus, and thence into the abomasum."—*Alb. Cult.*

BORROWING.

"The borrower is a servant to the lender."—
Prov. 22. 7.

Whilst every man who borrow's much, feels the truth of this adage, how many still persist in the practice of borrowing. Why, I know several farmers who are doing business on a right large scale, who borrow the plough which breaks their fallow—the harrow which levels it—the bag which conveys their seed wheat to the field—the cradle which cuts the crop—the waggon which hauls it to the barn—the wheat-fan which cleans it, and then again the wagon which takes it to market. While the borrower is therefore, in some sense, servant to the lender, Solomon might have added that he is a most "unprofitable servant." For whilst he lays himself under daily and heavy obligations to the lender, which may well be likened to a state of bondage, he distresses, incommodes and injures the lender to such a degree that it is sometimes hard to tell which will come to poverty soonest. A good farmer will not only provide himself with all the necessary implements of his business, but will try to keep them at all times in good order and in their proper places. You will see his ploughs and harrows and wagons and carts and cradles and mowing scythes and axes and hoes, and all the rest snugly housed and sheltered whenever not in actual use, so that whenever the time comes for using them, there they are, easy to find and in good condition. If he is a free lender, and is annoyed with borrowing neighbours, his plough, when he wants it, is at neighbour Dolittle's—his harrow at neighbour Scratchall's—his wagon not yet returned from neighbour Longkeep's—often he

forgets who has borrowed them, and when he finds them, they are broken, abused and out of order: such is the fate of the lender. The borrower is no better off, for if he has so little pride as to be able to bear the mortification of his constant dependence upon others, he is still the loser in the end, for in running about to borrow and to return the articles (if he takes the trouble) time is lost—precious seasons are often lost, his crops are put in late, and every thing works badly. I never knew a man who borrowed much who did not break.—*Valley Farmer.*

A LENDER.

Cranberries.—Cultivated cranberries were exhibited by S. Bates, Billingham, Norfolk Co., Mass., grown on his own land. He states that "low meadow land is best for them, prepared in the first instance in the same manner as for grain. The wild cranberry is transplanted into this in rows 20 inches apart. At first they require a slight hoeing, afterwards they spread and cover the field, producing crops annually thereafter without further culture. In this condition they produce much larger and finer fruit than in their wild state, the yield being from 200 to 300 bushels per acre, worth on an average in the Boston market at least one dollar per bushel. A damp soil, or when wet predominated, has generally been considered necessary, but Mr. Bates thinks this not essential to their successful cultivation; any soil unless when inclined to bake will answer. Early in spring is the best time for transplanting."—*Am. Ag.*

To Kill Lice on Cattle.—Mr. Starr, of New Jersey, informs us that scattering buckwheat flour plentifully over lousy animals, is an efficacious cure for them. We presume other kinds of flour would do just as well. One of the best things we ever tried, was rubbing our stock well with rancid lard, or whale, or tanner's oil. The *Boston Cultivator* recommends washing the animal a few times with a decoction of red-cedar bark.—*Am. Ag.*

To make Ants Disappear.—A small quantity of green sage, placed in the closet, will cause red ants to disappear.—*Am. Ag.*

Many choose their friends for the sake of their purses, rather than their full hearts. They forget that a full purse may soon be exhausted by frequent demands upon it, while the more a full heart gives away its treasures, the oftener it is replenished. We shall find the strings of the heart and strings of the purse both tightened in the hour of adversity; the former around us—the latter around itself.

Native Grape.—A correspondent of the *Boston Cultivator* speaks in high terms of a seedling grape, purchased of G. B. Emerson, Esq. of Boston. The size of the berry is said to be about that of an ounce bullet, or that of the Sweetwater grape. The flavour is rich, much more so than the Isabella. It has no pulp or foxy taste. It is not likely to be injured by frost, as it puts out about ten days later than the Isabella, and ripens a month earlier. It was in eating the latter part of August. The vine is perfectly hardy.—*Alb. Cult.*

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 [F] We would recommend our readers immediately upon receipt of their paper to stitch it;—they can then cut open the leaves, and it will be much more conveniently read, and it does not in any way injure it for binding.

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THE Subscriber offers for sale, TWO COLTS (male and female) by *Knickerbocker*, out of *Rose and Maggy*. *Knickerbocker* is sired by *Knickerbocker*, a thorough-bred powerful Racer from Long Island (got by an English full-blooded Horse and Dam imported at New York.) out of a half-bred American Mare, owned by John M Donald, Esq., of Gort, Cornwall, Canada West. *Rose and Maggy* are sired by *Roscevalles*, out of Mares at the West and North Rivers, near Charlotte Town, Prince Edward Island.
 EDWARD STEWART.
 New Brunswick, Aug. 30, 1844.

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