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# THE JOURNAL OF EDUCATION AND AGRICULTURE,



PROVINCIAL NORMAL, AND MODEL SCHOOLS, TRURO, N. S.

FOR THE PROVINCE OF NOVA SCOTIA.

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## EDUCATIONAL.

### CLASSIFICATION OF SCHOOLS.

Most persons are aware that about ten individuals are ordinarily employed in the construction of a pin, and that these ten can manufacture, on an average, fifty thousand pins per day, or about five thousand for each individual, whereas, a good workman, by himself, can only make about fifty.

It may seem strange, and hardly credible, that by dividing the labor of manufacturing a pin into ten departments, the amount of work done can be increased one thousand fold;—and our wonder will not diminish when we are informed that the quality is as much improved as the quantity is increased by the division of labor.

It may be that there are some who will refuse to give credence to so marvellous a statement, until, with their own eyes they have witnessed the performance of the operation; but their incredulity cannot interfere with the progress of the work, which places so useful an article as the pin within the reach of the poorest in the land.

To bring this more clearly before the reader let us for a moment compare the cost of the manufacture of this article—the pin, with the expense which would attach to its construc-

tion without a division of labor, dismissing as irrelevant the value of the raw material employed.

Ten individuals, only a part of whom are adults, turn off fifty thousand pins per day, or five thousand a-piece; suppose the labor of these individuals to be worth, on an average, one dollar; the cost of manufacturing fifty pins will be just one cent, while the single individual who made his fifty pins per day, would labor hard, and make rough work, and yet would be obliged, at the same rate of remuneration, to charge two cents apiece for the construction of his pins. Such is an illustration of the benefits resulting from a division of labor.

Nor is this an exceptional case, the same truth may be as clearly illustrated in every department of mechanical labor, and no man possessing any claims to intelligence will be disposed to controvert the statement that in every art, incalculable saving of time and labor is obtained by assigning to each individual his separate work, and keeping him constantly engaged on that work, and on that alone.

By this means the operative has his attention solely directed in one channel, and he has leisure to contemplate his work in every light of which it is capable; he can examine all its principles, detect all its difficulties, plan schemes for removing obstacles, and make himself perfectly familiar with all its details; while his constant practice at one kind of labor gives him a facility which is perfectly astonishing to those who have overlooked the training to which he has been subjected, and,

without which, the greatest genius and the most versatile talents would labor fruitlessly to equal or even approximate.

To a landsman, who has lived all his days in some rural retreat, far from the city's din, or the roar of the surf-beaten shore, how wonderful is the agility of the gallant sailor, who springs from rope to rope, and runs along the rigging of the lofty ship! Filled with awe, he regards the rough denizen of old ocean as a being of a different order, and utterly refuses to credit the tale, that the same agility might have been his had he been subjected to the same training. He essays to climb the rope-made ladder, to test his powers, but his ascent is slow and tedious, and his trembling hand with difficulty retains in its nervous grasp, the frail hempen fabric which bears him aloft, and saves him from destruction. Short space has he mounted ere his longing eye is cast earthward to measure the distance passed, and to his affrighted imagination it seems magnified tenfold above the reality; downward he lies, with quivering muscles and trembling limbs, and when once again, his foot has firmly pressed the deck of the stately vessel, his heart bounds with joy at the danger passed, and he inwardly resolves never, never more to attempt the dangerous experiment.

Let us step into a counting house in some large city, see that pale man with the lofty brow, seated at his desk; before him are long columns of figures, on which he is intently engaged. Mark how his eye glances up the page with almost the rapidity of lightning, and his pen jots down, with eager haste, the results of the computation, page after page is turned, and still the same untiring assiduity, the same astonishing speed. In one short hour he has computed more, he has added more pounds, shillings, and pence into one grand result, than you, who have been observing him, could accomplish in a day. Whence is this? how is it, that he, who in boyhood's days, seated at the same desk with yourself, was fain to seek your aid in these very calculations, is now possessed of almost superhuman speed? Oh, the answer is not difficult, he has spent year after year in these calculations, until they have been inwoven with his very nature, until calculation is to him no labor at all,—it is second nature.

Do we need to multiply examples? Look at the orator, who, during a long life has been engaged in almost daily appeals to the reason of his fellows; with what ease he speaks, how fluently the words roll from his lips, how natural his gestures, how clear his reasoning, how apposite his illustrations, how convincing his argument! He holds you rapt for many hours, and yet he scarcely spent as many minutes in preparing that splendid oration, he needed no preparation. And why? Go back fifty years, and look at the same man just beginning his career, he is about to essay his maiden speech; for months he has been closely engaged in its preparation, he has written it throughout, and imprinted it thoroughly on his memory; yet, his lips tremble and his countenance is pale as marble while the heavy perspiration hangs in beads from his brow. With trembling step he ascends the platform to make that effort upon which so much depends; and which he dreads, O, how much! What is the difference between the finished orator and the raw stripling, who so awkwardly makes his first trial of oratory, and after a few tremulous sentences, pauses, becomes bewildered, and ultimately shrinks from the platform, covered with shame, and followed by the groans and hoots of the thoughtless and unfeeling, and by the compassion of those who cherish for him a kindly re-

gard? It is practice, long continued practice; he nerved himself for future exertions, and that success which always attends perseverance, at length crowned his labours and raised him to eminence.

Is the picture overdrawn? Many a man who now trends on the high places of the earth, and who is honored for his talents as a public speaker, can attest its truthfulness.

If then, the benefits of long continued practice at one single occupation are so great, and if the power to labor is so vastly increased by rigid concentration of effort, how important that we should take advantage of this in the arrangement of schools! How ridiculous, that the teacher must be occupied, now at the duties of the abedarian, or with a class in the elements of reading or arithmetic, anon, with some advanced pupil in higher algebra or mathematics, or mayhap Homer or Virgil; or, what is far worse, but too common nevertheless, in attending to two or more of these duties at once. As well might we require an individual to manufacture his five thousand pins per day, while his utmost exertions were requisite to produce fifty, as expect the teacher to perform his duties to the best advantage while he is encumbered with pupils at such different stages of advancement, and engaged in such an endless variety of studies.

It is true, that in a new country, men are forced to adapt themselves to the circumstances in which they are placed,—and while in some of the most thinly peopled districts of the province, it may still be necessary for the farmer to be his own blacksmith and shoemaker, surely, where no such necessity exists, he must be a madman who engages in such a variety of occupations. Let us therefore, while we acknowledge and lament the necessity which in some country districts still forces the teacher to forego this high vantage ground, see to it, that, wherever it is practicable, a proper gradation of schools shall be made, each teacher having pupils at, as near as possible, the same stage of advancement. Thus the valuable time and talents of the teachers of our land will no longer be frittered away in an endless diversity of employments.

In connexion with this branch of our subject we may add that the attainment of a thorough gradation in schools is by no means so difficult as many imagine. In most of our country villages two or three teachers are already engaged; in some, a much greater number. In such places nothing but indifference can prevent the successful grading of the schools.

And even in the rural districts of the province, a proper appreciation of the benefits resulting from a systematic division of labor might work wonders. The great obstacle is the unwise desire to subdivide the districts, until each half dozen families have a school for themselves. So long as this continues, it will be impossible to obtain any very general advantages from gradation. Let each school district be six miles in diameter, with a properly built and equipped school-house in the centre, and three, or at least two qualified teachers employed, and a new impetus will be given to the cause of education which will be felt and acknowledged through the length and breadth of the land.

Another great result of this movement would be a lessening of the cost of education, for, while one individual cannot do justice to a school of twenty pupils, at all different stages of advancement, three can, with all ease, do thorough justice to ten times that number, when graded into primary, intermediate, and high departments, each grade pursuing simultaneously the studies adapted to its stage of advancement. This

has been fully proved by the success of the model schools in Truro, as well as by numerous examples of similar institutions on both sides of the Atlantic. Now suppose the salary of a teacher who has charge of a school of twenty pupils is one hundred pounds,—each pupil pays five pounds per annum for his education, whereas, in a school of two hundred pupils, with three teachers at salaries of one hundred and fifty, one hundred, and fifty pounds, respectively, the cost of education for each pupil would only be one pound ten shillings per annum.

We have endeavoured to point out the advantages of graduation of schools both in respect to their efficiency and their cheapness. There are many other considerations, which we might urge in defence of the views we have advanced, but we must pass on to discuss another branch of our subject, namely, the advantages of a thorough classification of pupils.

We need scarcely stop to remark that, within the memory of many now living, each individual formed a class by himself. Nay there are spots in the favoured land of Nova Scotia, where this custom prevails to day. Fifteen or twenty pupils, each furnished with a different reading book, are seated in a little dingy room, all reading aloud, each vociferating to the full extent of his vocal organs, while head and feet keep time to the singsong monotony of the voice.

A traveller passing within a quarter of a mile of such a building, while the business of the day was in full operation, would be admonished of his proximity to the seat of learning, by a sound not unlike the hum of a colony of bees aroused to anger by the approach of some unwelcome intruder. On advancing nearer, the sounds wax louder and fuller, like the roar of a rushing waterfall, until, upon entering the building, one is forcibly reminded of a meeting of the inhabitants of Babel, at the confusion of tongues.

We pass over the filthy building, the absence of ventilation, the deafening noise, and the want of proper desks and apparatus; not that these things are less important, but our special design now requires our attention to another subject, and these have been fully discussed already. Let us look at the progress of the work. Pupil after pupil is called up, and takes his place beside the teacher, each in turn recites his lesson, and is dismissed to his seat, to make room for another. In this way three hours are spent in hearing twenty pupils read twenty lessons, from as many different text-books, allowing to each lesson an average time of nine minutes. Thus passes away the forenoon, and the afternoon witnesses a similar performance. A whole day has been occupied in giving two reading lessons to twenty pupils.

True, the teacher has been employed meanwhile, in making pens, in writing copies, examining questions in Arithmetic, and maintaining, what he considers, the discipline of the school, but all the while, the unceasing reading lesson has progressed, for any cessation of that would interfere with the completion of the work, which requires so many lessons to be imparted to each individual pupil, before the school can be dismissed.

If it is necessary to have a class in Grammar, or Geography, an extra hour must be devoted to that subject, and pains taking teachers, under such circumstances, generally considered the setting sun, the best indication, that "school had kept long enough for that day."

Now by a proper classification, accompanied by such a grading as we have already described, one reading lesson in each department, except the primary, is amply sufficient, and that

need not occupy more than half an hour. Of course, the exercise must be simultaneous. We have no inclination, nor does our subject require us, to enter into any explanation of the mode of conducting a simultaneous reading lesson. Happily there are hundreds of teachers in the province, who not only understand, but practice this all important part of a teacher's duties; and who can testify, from experience, to the benefits resulting from its use. Half an hour can be spent in a lesson on English Grammar, also imparted to the whole department of which the teacher has the charge; half an hour to Geography; another half hour to History, another to writing, &c., &c.

In this way, sixty pupils, or if necessary, even a greater number, can receive instruction in the same branch, at the same time; and the teacher's power of imparting instruction is thus increased sixty-fold.

Who will deny the benefits of a classification of pupils when it is so easy to demonstrate the immense saving of time and labor which results from it?

Nor is this the only view of the question, demanding our attention.

The principle of emulation is a powerful stimulus to exertion, on the part of the pupils,—and properly plied, it can give a charm to the duller lessons. As a jaded war steed, who moves along with stiffened limbs, and drooping head; when suddenly the tread of the marching squadron falls upon his ear, with head erect, and flashing eye, he champs the foaming bit, and struggles to regain his companions. Once arrived at his accustomed place, he manifests no fatigue, but with firm step, and arching neck, he bears the rider along his course. So the pupil who has no companions in his studies, will falter and flag, and both whip and spur will fail to produce that energy which his studies demand. But let him be associated with those of his own age, pursuing the same studies, and all the laggard will disappear. He struggles to maintain his credit in the class and to vie with his fellows in the career of learning.

We do not defend that selfish emulation, which would triumph over the misfortunes of others. We condemn the system of honors and rewards ordinarily practised, because it tends to encourage in the youthful mind, emotions at variance with the spirit of the gospel. But there is an emulation which can be effectually cultivated in large classes, when under careful moral training, which bestows great benefits without any attendant evils.

Another great advantage of classification results from the sympathy of numbers; and as the limits of this article require us to draw it to a close, we will content ourselves with glancing briefly at this principle.

Who has seen a crowd of fifty or one hundred boys, or nearly the same age engaged at play? With what ardor they rush to and fro. How animated every countenance, how joyously they shout, how eagerly they contend in the friendly rivalry! Hour after hour passes away, and still there are no indications of weariness, and the setting sun causes the most unbounded astonishment, so rapid has been the flight of time.

Look at another picture, two or three boys are endeavouring to amuse themselves at the same game which was so full of interest to the fifty; but with what indifferent success, how tame it seems! An hour has not passed, ere the conclusion has forced itself to each mind, that the play is tiresome, and with one consent it is abandoned.

Need we seek the explanation of this? Who does not recognise here the operation of sympathy? And the more numerous the company—the greater is its power.

Shall we take advantage of this principle? Shall we turn it to practical account, in carrying on the business of education? Or, shall we leave it to work unmitigated evil? Work it must! So long as the human mind retains its present organization, this sympathy will be powerful for good or evil.

Let us see to it, that by properly graded, and classified schools, we place the teachers of our land in a position to take advantage of this mighty impulse, that our youth may be trained up in wisdom, and that all the powers, and sympathies, with which the Creator has endowed them, may be turned to their legitimate use.

Then, and not till then, may we look with confidence, for the fulfillment of the promise of Jehovah, "Train up a child in the way he should go, and when he is old he will not depart from it."

### MUSIC.

WHAT would it have profited the bee that herbs and flowers are stored with honey, that the whole vegetable creation is an overflowing repository of liquid sweets, had it not been provided with an instrument which it could thrust into the nectared receptacle to extract its contents. As the vegetable kingdom is stored with food of the most delicate quality for the sustenance of the tiny insect, so is the whole natural world one vast repository of intellectual food for the mind of man. And as the bee is so formed that it may receive the benefit of the provision made for it, with equal adaptation to his circumstances, is man constituted, that he may participate in the bounteous feast spread out before him. Not only are objects of various forms and qualities constantly before us, but we also are furnished with external perceptions, by which we detect those objects, their forms, and qualities. If these objects have a degree of density, if they are rough or smooth, if they have colors, varied and beautiful, if they shed abroad their essence, diffusing a fragrance around them, if they agitate the air in vibrating tones, or if they are impregnated with flavor, we too have our counterparts in the organs of sense, by which we appreciate these qualities and render them subservient to our benefit and gratification. All our knowledge of the external world is obtained through the agency of the five senses. They bear the same relation to the mental faculties, as the little proboscis of the bee to the parts of his stomach, by which the honey is separated from foreign matter and stored away in the hexagonal cells. In all the acquisitions of the mind, it employs these as instruments of research, to bring home the raw material to the internal perceptions. Viewed in this light, the importance of the senses is at once recognised, and it is necessary only to make the educationist know that they are capable of acquiring new and increased powers of action, and he will immediately acknowledge that it is his duty to subject them to a process of training with a view to their highest possible development. It would be by no means a difficult task to take up the senses individually and show their susceptibility of almost unlimited improvement. This, however, would not be consistent with our present purpose. We

simply point to the discriminating taste of the dealer in wines, the smell and touch of the blind, the vision of the sailor, the ear of the telegraph operator.

We have seen that the organs of sense are of the highest importance to the mind; we are disposed to regard that of *hearing* as pre-eminently so. The knowledge derived through it is of the highest value, and the effects that are produced, through it, upon the emotional nature, surpass those arising through the agency of any other sense. This is especially the case with children. It is not the brilliant color, nor the fragrant flower, nor yet the nectared honey-drop. It is not the gentle eye, nor the countenance beaming with love, which hushes the feeble infant's lament. No; but the mother's sweet toned lullaby. There is a spell in this, which steals upon the little one, soothes its troubled spirit, and hushes it in sweet repose. It is not the death-bearing lightning which causes the timid heart to tremble; but the fear-inspiring peal of the harmless thunder.

The sense of hearing is also susceptible of a very high degree of cultivation; but in no case do we find it so clearly displaying this susceptibility, as in respect to music. The untrained ear is almost entirely unable to distinguish the diversities of musical sounds, yet, by a course of careful and long continued training, it can discover five hundred different tones and as many variations in the strength of each tone, making twenty-five thousand varieties.

Skill in music is what none expect to acquire without training, and the propriety of placing music in the catalogue of school duties, depends entirely upon the importance of proficiency in the art. We propose to discuss this question—first, in its utility and importance to the recipient; and second, in its utility to the teacher in the management of his school.

The cultivation of the musical powers is important as affording a means of innocent and rational enjoyment. Youth cannot be unoccupied; it should be the study of those who have charge of their education to open up to them abundant sources of virtuous gratification, and thus so to preoccupy the mind that there may be no inclination to seek for enjoyment in the revelries of vice.

Music pleases, it soothes, it subdues. When dull care oppresses and deep gloom hovers around, like the heavy autumn cloud, how like a friend in need, music comes forward with its cheering and lighting influence. The plough-boy as he follows his team from rosy morn to dewy eve, beguiles his weary rounds by cheerful songs. Music has a power to dispel malevolent affections from the mind. So much is this the case that it has become proverbial, an angry man cannot sing. It is equally true that a man cannot retain feelings of anger while he yields himself to the overpowering tones of music. Ordinarily it has a power to arrest the vindictive feelings and bind them in chains of love, to calm the raging billows of anger and lull them to sweet repose. Mark the infuriated and raging Saul, as the assuasive hand of the sweet singer of Israel steals along his heart, breathing a halcyon calm through all his soul, lulling his rustled passions in the repose of love. Is this the power of music? Then how might its salutary voice diffuse a harmonious spell around the gloomy hearth, dispelling every dark cloud which sits upon the brow, illuminating every countenance with bright smiles, and making every eye sparkle with love and warm affection. There are ebbs in the most steady flows of affection; what a power is here to restrain the receding waves and make them flow

ever onward like a mighty river! Need we further illustrations of the soothing power of music. Take the prophet *Elisha* when applied to by the three kings in distress. Two of them are idolators, against whom the prophet is so indignant, that he at first refuses to notice them. At length, on account of the third, he condescends to enquire of the Lord for them. But so highly irritated was the holy seer, that he considered himself not in a fit state of mind to court the heavenly assatus. In order, therefore, to allay these feelings, he commands a minstrel to play before him. While the music floats around him and its influence gently steals over him, the Spirit of prophecy descends, instructing in what terms to answer the kings.

Music has a plastic influence on the mind, or perhaps we should say a power to bring it into such a condition that it readily receives impressions from without. We see this illustrated in innumerable instances, especially in popular songs and martial airs. Witness the excitement, almost the phrenzy, of a Parisian mob at the singing of the *Marcellaise*. The sentiments of the song acquire a vastly increased power over the mind, when they are borne on the pinions of music. Enter the sanctuary and behold the fervor of the assembled worshippers, as their hearts drink in the devotion of *Sion's Songs*.

It is no argument against this art that it may, and often does, become the instrument of evil. The same argument would lie against many undisputed blessings. The power of speech is often perverted to work of evil. That music is susceptible of a like perversion should certainly cause those to whom the education of the young is entrusted, to be watchful over the character of the associations that are combined with musical exercises.

From what has been stated we may readily infer that both the domestic circle and the Church demand attention to singing as a branch of education. We believe that, if subjected to early training, all may be taught to sing. The exercise has been appointed by God as an important part of his worship, and if we may assume to make comparisons in such a matter, it is the most heavenly part of that worship. How, then, can we fulfil the end of our existence, whilst we withhold from our Maker that tribute which he demands at our hands, or neglect to use proper means to qualify ourselves for required duty.

But singing is not confined to this polluted earth, it will be an exercise in holier and happier climes, where nought but love divine is felt, where continued rounds of pure delight are realized by every soul. Singing shall never cease, it shall be a grand employment beyond this scene of turmoil and strife. The endless ages of eternity shall roll on, and still, oft as the heart shall beat with holy emotions of love and gratitude, the voice shall rise in rapturous song. Yea, the assembled choirs shall tune their harps, swelling with sweet and lofty melody, and throughout Heaven's ample space, heart shall respond to heart, voice answer back to voice, song resound to song, while a stream of commingled harmony shall flow onward, copious, majestic, unimpeded, unembarrassed. Who, then, will not delight in music now, and rank it among the highest accomplishments which we can possess?

We pass on to the consideration of the utility of music to the teacher, in the management of the school. We regard it as a most important part of the machinery which he must employ in order to carry on his work successfully. Its place can be adequately supplied by no other agent, in bringing himself

into a proper condition of mind for the duties of his office.— Everyone who has had any experience in teaching, knows how necessary it is for the teacher to maintain an equanimity of mind, an unruffled spirit. The moment he loses his self-control, he lets go his power. With him it is emphatically true, that he that rules his spirit is better than he who takes a city. And every teacher knows how difficult it is to maintain this rule with steady hand. Perhaps he has met with some unpleasant circumstances outside, and he enters the school-room with a frown upon his brow, and the trembling school-boy reads the day's disaster in his face. But, granted that he is able to begin his work under more auspicious circumstances, how many incidents occur every day to ruffle his temper.— When he feels in irritable mood, or that he is beginning to give way, what a speedy and sure relief would he find in a cheerful song. But, again, the pupils will be benefitted by the song no less than the teacher. Children require variety. They cannot continue at severe intellectual toil for a long time, it is wrong to urge them to do so. The teacher often injures his pupils and brings trouble upon himself by exacting too much intellectual work, overlooking the fact that the children are emotional and physical beings. The bow that is kept constantly bent at length loses its elasticity; so the mind by constant tension loses its power of action. When it is kept lashed down in deep and continued thought, presently it creams and mantles like the standing pool; it becomes turbid and confused, and loses all ability to perform its ordinary functions. Music is a powerful agent to restore the mind to its most vigorous and active condition. It chases away the lowering clouds and brings back the bright sunshine. Like motion in the waters, keeping them clear and sparkling and wholesome, like the breath of morn to the invalid, inspiring him with new vigor and elasticity, so is music to the mind,— music to the flagging mind. It reanimates and invigorates it, brings it into a recipient condition, and stimulates to increased mental activity. How much better does the teacher, when the children manifest restlessness and inactivity, to let them sing a cheerful song, than to scold and hector till he almost drive them to rebellion and himself to madness. When the children have been long in, it is frequently of great service to allow them to take a march around the school-room, keeping time with the music. We earnestly hope that every new school-house that shall be erected in our Province, shall be of such dimensions and internal arrangement as to allow abundant facility for this important physical exercise.

If children are trained to step to the music, singing will be found very serviceable in preventing rudeness as they enter and leave the school-room. Every movement may be reduced to military order. The great secret of keeping order is fully to absorb the attention of the children. Few things are more interesting to them than singing, and if they are heartily engaged in this exercise they will even forget to be rude. We are decidedly of opinion that any attempt to manage a school by moral suasion, without music, would be a complete failure. Abandon the music, and the rod must supply its place.

We have shown some of the reasons why music is of great importance, both in the school-room and out of it; hence we infer that it should be made a branch of education, that it should have assigned to it no mean place in the catalogue of school duties. It should be one of the first, if not the very first, exercise in which the child is invited to engage on cross-

sing the threshold of the school-room, it should be his *rade mecum*, throughout his school life. In fine, the teacher should employ music as a necessary part of the machinery for the successful accomplishment of his work.

### ON MANNERS AND HABITS ;

THEIR CONNECTION, AND IMPORTANCE IN EDUCATION.

*A Paper read before the United Association of Schoolmasters.*

In introducing to your notice the subject of "Manners and Habits; their connection, and their importance in Education," I may remark that I have nothing new to bring before you; as most of you are, practically, much better acquainted with the subject than I am; but though I cannot hope to excite the pleasure experienced while being led through fields of knowledge newly discovered, yet I hope that the importance of the subject itself will prove sufficient to arouse your interest, so that I may feel that, in some degree, I have fulfilled the task I undertook at the request of our worthy secretary, made on behalf of your committee, viz.: "To read a paper on some subject of interest to the members."

I think I may safely presume that you will not require of me, nor expect that I should give, elaborate and carefully-worked definitions of the terms made use of in announcing this paper. I take it for granted that you will deem it quite sufficient for me to say that by the term "*manners*" I mean the way or style, in which anything is said or done. Therefore our subject embraces manner of speaking, and manner of acting or performing actions; and, thus considered, it embraces the whole subject of *general behaviour*. At first it may appear that, in this sense, *manners* and *habits* are two names for the same thing; but in this paper I propose to observe this distinction between them:—I apply the term *manners* to the way or style of saying or doing things once, or a few times; and the term *habits* to that facility of continuing the same way or style of speaking or acting, without any perceptible effort of the faculties, which is the result of frequently and exclusively repeating the same *manners*. This is all the definition of terms that seem to me to be necessary. In the distinction between *manners* and *habits* we see their connection: the *habits* acquired depend upon the *manners* adopted or enforced.

The kind of *manners* adopted by an individual depends upon many things, such as the precepts and examples of others; the circumstances in which that individual is placed, and the motives put into exercise by such circumstances; and the natural disposition of the mind, &c.; and the *habits* formed correspond in character to the *manners* adopted.

In considering this subject I cannot separate good behaviour or politeness from morality and virtue. Politeness and good breeding, without morality and virtue, is but to cover a beggar with tinsel: it is but a whitened sepulchre. And morality and virtue—in the strictest sense—without politeness and good breeding—in their essential character—is, I think, an impossibility.

"True politeness," says an old author, "is modest and generous. It appears as little as may be; and when it does a favour, would willingly conceal it. It engages a man to prefer his neighbour to himself, because he really esteems him; because he is tender of his reputation; because he thinks it more manly, more Christian, to descend a little himself, than to degrade another. He expresses his preference of another in a way worthy of himself, in all innocent compliances, in all manly condescensions. But the *falsely* polite respects neither his own dignity, nor that of human nature. Truth, reason, virtue, are all betrayed. He assents to errors the most pernicious; he applauds follies the most ridiculous; he soothes vices the most flagrant in other men. He never contradicts, he never disapproves, though in the softest form, or by a respectful silence; he never condemns, though it be on-

ly by a good example. He solicits their favors by mean compliances, and for the basest ends." If this be so—and I cannot see it to be otherwise—politeness or good breeding, or civility or gentility, call it by what name you will, cannot exist apart from virtue and moral worth; nor can virtue and moral worth exist without politeness in its essential characteristics. Lord Chesterfield, an authority of great weight in these matters, according to the opinion of many, says:—"As it is necessary to possess honour, and virtue, to gain the esteem and admiration of mankind, so politeness and good breeding are equally necessary to render us agreeable in conversation and common life. Great talents are above the generality of the world, who neither possess them themselves, nor are competent judges of them in others; but all are judges of the lesser talents, such as civility, affability, and an agreeable address and manner, because they feel the good effects of them as making society easy and agreeable." We here observe that, though he considered honour and virtue apart from politeness and good breeding, yet the very passage shows that he considered the one as the complement of the other; but he speaks more decidedly to the point on the subject of the dignity of manners. "I have only mentioned some of those things," he says, "which *may* and *do*, in the opinion of the world, lower and sink characters, in other respects valuable enough; but I have taken no notice of those that affect and sink the moral character; they are sufficiently obvious. A man who has patiently been kicked may as well pretend to courage, as a man, blasted by vices and crimes, to dignity of any kind. But an exterior decency and dignity of manners will even keep such a man longer from sinking than otherwise he would be.

Shakespeare has it right when he says—

"All the world's a stage,  
And all the men and women merely players;  
They have their exits and their entrances;  
And one man in his time plays many parts,  
His acts being seven ages."

Such being the case—and who can deny it?—I suppose we must all learn our parts; and, in order to be successful in gaining the attention of, and to instruct and please the spectators or audience, we must be at pains to learn to speak and to act our parts well; and, according to Shakespeare again, "Suit the action to the word, and the word to the action; with this special observance, that we o'erstep not the modesty of nature; for anything so overdone is from the purpose of playing, whose end, both at the first, and now, was, and is, to hold, as 'twere, the mirror up to nature; to show virtue her own feature, scorn her own image, and the very age and body of the time his form and pressure. Now this overdone, or come tardy off, though it make the unskilful laugh, cannot but make the judicious grieve; the censure of which one must, in your allowance, o'erweigh a whole theatre of others." We must adopt—to carry out the figure—the most approved style of speech and manner of acting in the "green room," and then it will become our habit, and cling to us upon the stage of our life. But I must say that I think objection may fairly be made to that which, in a quotation we have made, is called "*false politeness*," and of which it is said that it respects not its own dignity, nor that of human nature, &c. I think every true Englishman would rather be contradicted, even roughly, than be told a positive falsehood, and that deceitfully under an appearance of truth; but it is not therefore the less pleasant to be contradicted courteously. That kind of behaviour which is not based upon truth and sincerity is not only not worth copying, but is positively pernicious, however it may smooth the path of life—which I sincerely believe it to be perfectly incapable of doing. Better the most uncouth manners with sincerity and candour, than the most bland with deceit; but, at the same time, we must remark that to be honest and sincere we need not dispense with reserve. Dr Adam Smith, in his "Theory of the Moral Sentiments," speaking upon the works of ensuists, that they attempted to no purpose, to direct, by precise rules, what it belongs to feeling and sentiment only to judge of. How is it possible to ascertain by rules the exact point at which, in every case, a delicate sense of justice

begins to run into a frivolous and weak scrupulosity of conscience? When is it that secrecy and reserve begin to grow into dissimulation? How far an agreeable irony may be correct, and at what precise point it begins to degenerate into a detestable lie?—What is the highest pitch of freedom and ease of behaviour which can be regarded as graceful and becoming, and when it is that it first begins to run into a negligent and thoughtless licentiousness? With regard to all such matters, what would hold good in any one case would scarcely do so exactly in any other, and what constitutes the propriety and happiness of good behaviour varies, in every case, with the smallest variety of situation." This passage shows us, I think, clearly, that there is such a thing as freedom and ease of behaviour, which can be regarded as graceful and becoming, without being open to the charge of being a negligent and thoughtless licentiousness—that there is such a thing as agreeable irony, which cannot be considered a detestable lie—that there is a degree of secrecy and reserve which cannot properly be considered dissimulation—and also that, though there is such a thing as a delicate sense of justice, which is perfectly proper and correct, yet there is a possibility of its running into a frivolous and weak scrupulosity of conscience.

Having thus far treated of the subject generally, we now come to consider more particularly its importance in education—i.e., as it affects schoolmasters.

It is acknowledged on all hands that it is the duty of parents to bring up their children properly. The parents are responsible for doing this to the best of their ability and means. They are responsible to God, who gave them children, responsible to the children whose after life of misery or happiness depends upon their properly fulfilling it; responsible to society, of which those children will form a part when grown up; and responsible to the State to which they are subject. Bringing up children properly embraces a great deal; and, among other things, training them in becoming and proper behaviour towards their parents first; secondly, towards each other; and lastly, towards all people generally. But the occupations of parents in an artificial state of society, engross so much of their time, and necessarily separate them from their children such large portions of every day that they are unable to attend to the Education of their children personally; and hence the office of schoolmaster becomes a necessity. Now as I understand the duties of the schoolmaster, in accordance with the principles already laid down, it devolves upon him to supply in the Education of his pupils all those necessary parts for which the parents are responsible, but which, through circumstances, they are unable to supply; and therefore the subject of manners and habits necessarily falls within their border. Their work is not merely filling the minds of their pupils with knowledge or information—knowledge is worthless unless it can be used—nor is it exclusively the training or developing of their intellectual faculties; these are necessary in their proper degree; but the most important part of the duty of parents, and consequently the most important work of the schoolmaster, is to form correct habits in their children; and this is done by carefully watching over their manners—instructing them in proper and becoming behaviour under all the circumstances in which they may legitimately be placed; for we must not forget, but carefully keep in mind, that habits are acquired, whether with or without intention, and those habits will correspond exactly to the manners adopted. If the manners are correct and proper, the habits will be so too; and if the manners are incorrect and objectionable, the habits formed will be bad.

I am utterly at a loss to understand, why the period spent by young men of the most privileged classes of society at our universities should be the period of their dissipation, unless it be that manners and habits are entirely discarded as a necessary branch of Education. Why is it taken as a matter of course that they must at this period of their lives disgrace themselves, their relatives, and their tutors, by a career of excess, profligacy and dissipation? Such is the case, and I fear it is not confined to the Universities, but it rather seems to be considered, that at all schools, colleges, or universities [patronized by the affluent classes—I purposely avoid the terms

nobility and gentry,—to use them in connection with this subject would be to desecrate them] patronized by the affluent classes, extravagances in behaviour, roving dissipation, and a thorough contempt for good order and virtue, should be the order of the day; or in other and more vulgar, though not less expressive words, the "fast style" is adopted at almost all such establishments. Why is it thus? Why is it not otherwise? What is the cause of all this? I cannot consider such a state of things otherwise than a strong mark of barbarism. It is not the high blood and noble courage of the youths of the upper classes seeking to develop itself that causes them to play off those old vagaries they do, or to perpetrate such lawlessness and profligacy during this period of their lives; there is nothing noble or courageous in it but the opposite. Is it not rather the unrestrained willfulness of affluence? Is it not the delusion of the omnipotence of wealth, and the wilful ignorance of the fact, that such conduct is not only incompatible with nobility, but even with common respectability? They consider nobility to consist in wealth, or in a name, rather than in the high estimation of their fellows. And this is the fault in their Education. Did they but know and feel in what true nobility consisted, they would strive their utmost that their conduct should be such that they might retain, and not lose the very essence of their nobility. It is their deficiency in the knowledge and belief of this that allows them to indulge in such conduct.

Respectability is nobility, and in no way inferior in quality; it is only lower in degree. And to this degree of nobility all may attain if they but make the endeavour. And all will make the endeavour with earnestness, proportionate to the knowledge and belief they have of the fact, and of the surest way to attain to it; and it is Education alone that can impart this. Wherever we meet with instances where the conduct whether in high or low, is not consistent with the attaining of this degree of nobility, there has been something wrong in the Education. The habits formed depend upon the kind of manners adopted or enforced.

Daniel De Foe, speaking of the Education of Woman, says: "A well bred woman, and well taught, furnished with additional accomplishments of knowledge and behaviour is a creature without comparison. Her society is the emblem of sublimer enjoyments, her person angelic, and her conversation heavenly; she is all softness and sweetness, peace, love, wit, and delight; she is every way suitable to the sublimest wish; and the man that has such a one to his portion, has nothing to do but rejoice in her and be thankful."

On the other hand, suppose her to be the same woman, and deprived of the benefits of Education, and it follows thus: "If her temper be good, want of Education makes her soft and easy; her wit, for want of teaching, renders her impertinent and talkative; her knowledge, for want of judgment and experience, makes her fanciful, and whimsical. If her temper be bad, want of breeding makes her worse; and she grows haughty, insolent, and loud. If she is passionate, want of manners make her a termagant and a scold. If she be proud, want of discretion (which is ill breeding) makes her conceited, fantastic, and ridiculous."

Before saying one word upon these remarks in connection with our subject I must apologize to the ladies present for inflicting upon them such a description of their own sex as is contained in the latter part of this extract, and as a palliative must refer them to [the remembrance of] the first part of it.

We see from this extract, the prominent position De Foe gives to the subject under our consideration in the Education of woman; and although these remarks were made upon the Education of woman only, it does not follow that they have not a masculine application; and, though I am strongly opposed to anything that tends to effeminize our men, and deeply deplore the effeminacy of manners and dress adopted by men at the present day, still, I think, there is something corresponding to these remarks to be said on the Education of the masculines, if we had but anybody as clever and witty as De Foe to say it. If the precepts inculcated during the period of education be such as give a high appreciation of honour, a deep sense of the baseness of taking a mean advantage of



another, a strict adherence to truth, delicacy and politeness towards others, and the examples witnessed correspond to the teaching, unless some extraordinary circumstances, or some desperate inbred depravity intervene, I cannot conceive of the habits formed being otherwise than satisfactory; provided only that the precepts be enforced so that the manners are made to conform to them, and the examples. Indeed I cannot bring my mind to any other conviction than that if these adverse circumstances did exist, if children are taught these things, and that the figure they intend, or wish to make in future depends upon the present formation of their mind and manners,—that they have but to choose what character they think worthiest of their pursuit, and by following it attentively, according to the precepts and examples given to assist them, they may become what they please, that if careless and inattentive, they will become the character which they now sincerely hold in detestation as seen in others;—that a man of gentlemanly behaviour, though of inferior parts, is better received than a man of superior abilities who is deficient in this respect,—that sincerity and goodness of heart are the only source from which politeness must flow to make it justly admired, and its possessor universally esteemed,—and the blasting effects of following the examples of, or associating with, that large class of persons that good society holds in decided abhorrence upon their present and future happiness and success. If this be done in such a way that the present *manners* are answerable to the instruction given. I cannot bring my mind to the conviction that—even if adverse circumstances did exist—the *habits* formed would be other than satisfactory. I have never known anything contrary to this opinion. I do not say that I have not seen those who have had good instruction disappoint their instructors, but then there has been something deficient; either the instructions given, though good, have not been good enough; or there was some defect in the manner, or method of conveying them, or some deficiency in example, or in oversight, so that the *manners* were not conformed to the instructions—something wrong somewhere, or the *habits* formed would have been what they ought to have been.

Schoolmasters should address their scholars in the language of Blair, and say: "Let not the season of youth be barren of improvement; your character is now of your own forming; your fate is, in some measure, put into your own hands. Your nature is as yet pliant and soft; habits have not established their dominion; prejudices have not pre-occupied your understanding; the world has not had time to contract and clothe your affections. All your powers are more vigorous and free than they will be at any future period. Whatever impulses you give to your desires and passions, the direction is likely to continue. It will form the channel in which your life is to run. Consider, then, the employment of this important period as, in a great measure, decisive of your future happiness. Virtuous youth brings forward accomplished manhood, and such manhood passes into tranquil old age. But when nature is turned out of its course, disorder takes place in the moral, just as in the vegetable world. In the spring put forth no blossoms, in summer there will be no beauty, and in autumn no fruit."

Dr Adam Smith says: "There seems to be in young Children an instinctive disposition to believe whatever they are told. Nature seems to have judged it necessary for their preservation that they should, for some time at least, put implicit confidence in those to whom the care of their childhood, and of the earliest and most necessary parts of their Education, is entrusted. Their credulity accordingly is excessive; and it requires long and much experience of the falsehood of mankind to reduce them to a reasonable degree of diffidence and distrust." Nothing could be more favourable than this pliable condition of the disposition, will, and mind, for the inculcation of correct habits; and the only thing we have to lament is that these should be perverted in so many instances—by the injudicious treatment of others before they come into our hands, and during the time they remain with us.

I consider it one of the most lamentable things in our whole social economy, that so few of those who are parents, and who

have the rearing of a future generation, are properly qualified for such a sacred duty; nor do they feel the tremendous responsibility that rests upon them. The thought never seems to cross their minds, that, not only the future welfare and happiness of their children individually is placed in their hands, but also the stability and honour of our beloved country. The position of eminence that Britain holds among the nations of the world, is to be attributed to the truthfulness, integrity, and uprightness of her sons. Honesty, a spirit of fairness, candour and industry, have made her sons pre-eminent throughout the world, and when these characteristics of her merchants shall be wanting, we may sit down and weep for our glory is gone. The commerce that has enriched us so long will depart from us, just as the dishonesty and incivility of a tradesman deprives him of his customers. Nothing tends to ruin trade so much as dishonest practices; and if every Briton from his cradle was thoroughly disciplined in, and taught the imperative necessity of honesty, uprightness, candour, cautious reflection, and agreeable and obliging deportment, when would come the day that should see our national greatness declining? But alas! alas! it is not thus; but rather from the cradle children are mistaught and abused. Parents use them as play things, and talk about their engaging little ways; and liking them when they become interesting, and delighting even in the amount of temper the little things show. If it were not for the great interference with the liberty of the subject—a thing near to the heart of every true Briton—I should be inclined to suggest that there should be, not only inspectors of schools, but inspectors of families; and instead of reformatories for reclaiming depraved and corrupted youths, to see institutions for training incompetent parents in the proper and efficient discharge of their duties. Parents, as parents, are responsible to the State I am sure; and to society also they are responsible; and that son who violates the good sense of propriety entertained by society, disgraces his breeding. But the State has chosen to let the parents alone, and merely to educate the children, and hence many of our difficulties. You are trying to bring the children under your charge—in mental culture, moral stability, and courteous deportment—up to the standard that sons of Britain ought to attain; and you have the constant influence of the counteracting agency I have already spoken of, to contend with. The intellectual part of the business is comparatively easy; for most parents like their children to "get on," as they term it. They see the advantages of this. But not so of the other part of the subject; which I consider by far the most important, and quite as advantageous, if they could but see it. And, under the pressure of these circumstances, there is danger of treating this as a matter of only secondary importance, or neglecting it altogether. But let none of us be discouraged because of difficulties. Sometimes a little seed brings forth abundance of fruit. Difficulties there are; but let none of us shrink from our duty on account of them. Let us rather remember that difficulties are the very materials out of which great men have at all times wrought the glory, honour, and fame to which they have attained. No man to whose memory we pay honour, be he warrior, statesman, philosopher, or whatever he may, would have risen above the level of his fellows, had he not overcome some special difficulties, by more than ordinary perseverance. We had not heard of Havelock's name had he not grappled with astonishing perseverance with the (apparently) overwhelming difficulties of the Indian Rebellion. The Duke of Wellington is a name that probably would not have existed, had it not been for the untiring perseverance shown by the individual who was honoured by that title in all that complication of difficulties brought about by the guilty career of Napoleon. And so of all the men who have distinguished themselves in science, art, or literature. Their height upon the pedestal of fame is in a just proportion to the difficulties they have surmounted. But, perhaps, it is hardly consistent with modesty to look with an eye of emulation upon the elevated position of those men who have stood before the world, and by their perseverance performed such great acts, and for which great acts society raises them upon the pedestal of fame; and, even if it were consistent with modesty, our

sphere is so limited, that, though our difficulties be great, if we persevere ever so much, we cannot hope to reach the honourable position to which they have attained; still it will be of much service to us to look at their *achievements rather than their position*: for we observe that they have obtained the victory over their difficulties, and we will be encouraged to a like degree of perseverance in hope of gaining a like victory. True we see sometimes, as in the case of poor Havelock, those men vanquished by the difficulties against which they fought; but even this kind of defeat is almost as glorious as victory. It is one in which the honour accrues to the vanquished rather than to the victor. Schoolmasters, as schoolmasters, may not have the way open for them to fame as it is open for men in other professions; but the honest and earnest exertions of schoolmasters have in many instances bridged the way for others to pass over, and arrive at high distinction. It may not become us to lament, that, as schoolmasters, there is no road for us to eminence or fame; still, none will deny us the gratification to feel that we are classed among the most useful members of society, if not among the most brilliant; and that many great men have risen to the eminence they have, though the excellent tuition they have received from their schoolmaster, whilst a greater number, through their instructors have been enabled to take their place in the vast machinery of society and successfully fulfil the task allotted to them; and in the hearts of many of both classes, including some of the most noble and famous, their memories have been enshrined with the sincerest affection.

As an illustration of the importance of the schoolmaster in the furtherance and development of genius, Mr Thomas Sheridan, the father of Richard Brinsley Sheridan—of whom Lord Byron said: "Whatever Sheridan has done, has been *par excellence*, always the best of its kind. He has written the best comedy (*School for Scandal*), the best drama (*the Duenna*), the best farce (*The Critic*), and the best address (*Monologue on Garrick*); and, to crown all, delivered the very best oration (the famous *Begum Speech*) ever conceived or heard in this country." Mr Thomas Sheridan—the father of the person thus eulogised by Lord Byron—in his lectures on elocution, says:—"I dare boldly affirm that, of the multitude of instances which offer, of a vitiated articulation, there is not one in a thousand which proceeds from any natural defect or impediment. Of this point I had many proofs in the school where I received my first rudiments of learning, and where the master made pronunciation a chief object of his attention; in which I never knew a single instance of his failing to cure such boys as came to him with any defects of the kind, though there were numbers who lipped, or stuttered to a great degree on their first entrance into the school, or who were utterly unable to pronounce some letters, and others very indistinctly." It seems to me that Mr Sheridan's celebrity as an elocutionist is to be traced to the perseverance and attention of this unknown schoolmaster. He sowed the seed in his early youth, and in his mature years it produced abundant fruit. And who can say, deny, that the brilliant achievements of the son, Richard Brinsley Sheridan, of whom Lord Byron said that which I have already quoted—who can deny that it is possible, and even probable, that his celebrity was to some extent, fruit of the same labours.

I may appropriately remark here, that I consider the subject of distinct articulation, and clear enunciation, both in reading and speaking, to be one branch of the subject under consideration. To be perfectly disciplined in good manners, I conceive, embraces the doing of anything neatly—free from awkwardness and slovenliness, and, consequently, a slovenly and awkward enunciation, either in reading or speaking, is as incompatible with good manners as awkwardness of mien or slovenliness in dress. It may, perhaps, be both appropriate and useful to introduce some of Mr Sheridan's remarks upon the subject of distinct enunciation. He says:—"The first and most essential point in articulation is distinctness; and therefore its opposite is the greatest fault. Indistinctness, to a certain degree, renders the speaker unintelligible, or demands a more than ordinary attention, which is always painful to the hearer. The chief source of indistinctness is too great preci-

pitancy of speech; and this takes its rise in England chiefly from a *bad method of teaching boys to read*. As the principal object of the master is to make boys perfectly acquainted with written words, so as to acknowledge them at sight, and give them a ready utterance, the boy who at first is slow in knowing the words is slow in uttering them; but, as he advances in knowledge, he mends his pace; and, not being taught the true beauty and propriety of reading, he thinks all excellence lies in the quickness and rapidity with which he is able to do it. Thus the boys set out at a gallop, and continue their speed to the end, without regarding how many letters or syllables they drop by the way, or how many words they jostle together into one another. This habit of reading is often transferred into their discourse, and is but too frequently confirmed in the Latin schools, and afterwards gathers strength, because the boys are neither conscious of their own defects, nor receive any intimation of them from others."

These remarks upon the manner of reading in schools, and the habit it leads to, are so just, and so perfectly meet the case, that any additional remarks from me upon the subject would be superfluous. You will perhaps excuse me if I go so far as to say that I consider the subject of manners and habits in the education of children one of paramount importance, and that no amount of learning or knowledge imparted will compensate for the neglect of it.

What would be the effect of spreading upon a vessel, that had no ballast in her hold, all the canvass her rigging could carry? She must inevitably capsize in the first breeze that sprung up, and eventually founder. The more sails you spread, the more certain becomes her destruction. This is just illustration of what is done, and the results in pursuing the work of Education by neglecting the subject under consideration. How many thousands of young men are to be found in this metropolis—well informed and intelligent persons—who through neglect of the formation of habits of propriety in their education, are now enthralled by habits that lead them to persist in a life of perfect misery; following their vicious inclinations, robbing themselves of the good opinion of all persons of respectability, and perseveringly working out their own disgrace and eventual ruin! Such persons would be better without learning; their learning places them in situations of greater temptations, and they have nothing to preserve them from their evil influence. They have no ballast.

I do not lay the blame of this upon schoolmasters: it would be inconsistent with what I have already said to do so; but I do say that it is the fault of their education; and I will add that at the present day there are inducements for the schoolmaster to neglect this subject. The exertions of a schoolmaster in this important branch of Education cannot be well taken account of, either in a government or middle-class examination, it is one that after life must prove. But from what I know of the profession, I feel that I am warranted in the hope that schoolmasters set too high a value upon their honour and integrity, to be drawn into a neglect of this important part of Education by any inducements. For the honour of our country, and for our own honour, let us persevere to inculcate at any rate the spirit of those few precepts which Shakespeare makes Polonius give to Laertes previous to his voyage, bidding him character them.

"Give thy thoughts no tongue,  
Nor any unproportioned thought his act.  
Be thou familiar, but by no means vulgar.  
Thou friends thou hast, and their adoption tried,  
Grapple them to thy soul with hoops of steel;  
But do not dull thy palm with entertainment  
Of each new-hatched, unswaged comrade. Beware  
Of entrance to a quarrel; but, being in,  
Bear it, that the opposer may beware of thee.  
Take each man's censure, but reserve thy judgment.  
Costly thy habit as thy purse can buy,  
But not express'd in fancy; rich, not gaudy;  
For the apparel oft proclaims the man.

This above all,—To thine own self be true;  
And it must follow, as the night the day,  
Thou canst not then be false to any man.

## III.—OFFICIAL NOTICES.

The Winter Term of the Normal School will close on Thursday, the 29th day of March next. The concluding exercises will be as heretofore. The private examinations will take place on the preceding week, and the public, on Wednesday the 28th and Thursday the 29th.

Dr Forrester begs to call the attention of Trustees of Schools, Parents, and others, to the foregoing announcement, and to request that wherever a Normal Trained Teacher is required for the summer, immediate application be made to him, giving a full account of the particulars of the school, the probable number of scholars, the amount of teacher's emolument, &c., &c.

The Superintendent of Education begs to intimate that he intends, in the months of April and May, to hold Teachers' Institutes and address public meetings within the bounds of the following School Boards—Southern Pietou, St Mary's, Guysborough, Sydney, N. S.—and Richmond, Cape Breton, Victoria and Inverness, C. B. Particulars as dates, places, &c., given in next No. of *Journal*.

## IV.—EDUCATIONAL INTELLIGENCE.

## NOVA SCOTIA.

## SANDY COVE.

We are delighted to observe that the new School-House at Sandy Cove is finished and occupied. It would seem from the dimensions to be large and commodious, and the furniture, we have little doubt, is in perfect keeping with the external architecture. It is impossible that the inner life of education can flourish in any locality unless there is a well plenished workshop,—and, having provided themselves with this commodity, the good folks of Sandy Cove are amply entitled to the best trained tradesman. There are but few spots in the Province where a deeper interest is manifested in the cause of Education. We wish we could afford time to visit it every half year if it were for nothing but to get our educational spirit refreshed, and our intercourse renewed with the Gidneys, the Moses, and a number of kindred genial minds.

## YARMOUTH.

We are glad to hear of the marked progress in educational matters in this enterprising county. There are now not less than twelve or fifteen Normal trained Teachers busily engaged in carrying out our system there, as far as it is practicable, and we believe we may say, with safety, that, as a whole, they are bringing no discredit on their *Alma Mater* or on the system with which they are identified. We are truly thankful to hear of the fraternal professional spirit that reigns amongst them, and that they have formed an Association for mutual improvement. At a meeting held at Tusket a few weeks ago, there were ten teachers in attendance, all, except one, trained at the Normal School.—We hope the Secretary of the Association, Mr Sykes, will send a full and periodical report of all its proceedings for insertion in the *Journal*, that other districts may be bestirred to go and do likewise. Wherever there are three teachers who have been trained at the Normal School, laboring within a manageable distance, an Association should at once be formed.

## BRIDGEWATER, LUNENBURG COUNTY.

We have also, since our last issue, received good tidings from this stirring little village. It is proposed to erect here a large and commodious school-room with two apartments, and a Hall above. It is intended to expend some £400 on the building, and to raise this by taxation. We cordially bid our friends there all success in the movement. We have often heard it said that there is not perhaps a county in the Province where the subject of taxation is so obnoxious as Lunenburg. This undertaking will go far to wipe off this reproach. We firmly believe that the Assessment principle of supporting Schools only requires to be put into operation for a few years to secure the support even of the most cautious. Why are the Normal-trained Teachers in and around Bridgewater and Lunenburg and New Dublin not forming themselves into a Teachers' Association? The distance between them is no doubt considerable, but they may meet once a month for consultation and encouragement.

## CAPE BRETON.

We have also cheering accounts from some districts in this Island. We received a copy of a very beautiful address given to Miss Bishop, one of the pupils of the Normal School, by her scholars in her late field of labor, along with her reply,—and we have also heard of the successful labors of other teachers. A great work is still to be done on behalf of education in Cape Breton. The people themselves are beginning to see the need not only of a more copious supply of education, but of an education of a superior description. The grand impediment here in the way of improvement is the want of an adequate remuneration for the teacher. There seems to be a number of fine energetic young men perfectly prepared to qualify themselves as teachers for the benefit of their fellow-countrymen, were anything like an adequate endowment held out to them afterwards. Assessment will go a considerable length in obviating this difficulty, but in addition to this, something more special, in our opinion, ought to be done by the Province for the furtherance of education in Cape Breton. What that ought to be, we may indicate in some subsequent article. In the mean time, we are looking forward, with much pleasure, to our spring visitation of this interesting region.

## UNITED STATES.

The important question of the use of the Bible in the public schools has been temporarily shelved, by the Board of Education having agreed to trust its decision to the Supreme Court, for which purpose a test case has been prepared.—The Superintendent's annual report of the condition of the schools is just issued, and from it the following particulars are gathered:—

The educational resources of this city consist of 52 ward schools, comprising 44 grammar schools for boys, 45 for girls, 3 for boys and girls, and 46 primary departments; 35 primary and 8 colored schools. Pupils on register, 138,688, average attendance, 51,489; pupils in Free Academy, 830, in the 44 evening schools, 15,351, in the three normal schools, 650, and in the 12 corporate institutions, which share in the public money, 7,309, making in all 161,828 pupils taught.

Financially, the Superintendent reports the expense of salaries of teachers and janitors, \$617,128 91; new school-houses and repairs, \$363,946 23; fuel, \$29,530 19; books, stationery, and apparatus, \$72,485 73; salaries of officers of the Board, \$25,167 63; Free Academy, \$50,112 04; evening schools, \$69,089 23; Normal Schools, \$9,155 73; contingencies, \$9,384 31. Total, \$1,246,000. Of this sum \$1,038,067 05 was raised by city tax, and the remainder, \$207,932 95, was appropriated from the State fund, towards which the city contributed an equal amount, and \$191,684 03 in addition.

## REVIEW.

**THE ACADIAN MINSTREL**, in two parts. By J. H. Webster. Lately, Teacher in Model School, Truro, and now Head Master of Normal School, Prince Edward Island.

It has proved to us a source of much gratification, to find that this unpretending little volume has met with such a welcome reception from the friends of education generally throughout the Province. This has confirmed us in the view we have long entertained, that there exists, on the part of all enlightened educationists, a willingness to give music a prominent position in all our elementary schools, to consider it, in fact, as one of the branches of a Common School Education. There is now, we trust, the fair prospect of its speedily receiving this position in this province. All the Pupil-teachers in attendance at the Normal School receive instruction twice a week on the Theory and Practice of Vocal Music. And though there may not be a large amount imparted during the short period of time that the Institution is in session, particularly in the case of those who have received no previous instruction in this science, still we are fain to believe there is enough, in the majority of those who gain our diploma, to enable them to prosecute it themselves and to introduce it in its more elementary features in their schools. The Acadian Minstrel will prove a valuable auxiliary to all such, furnishing them not only with the music, but with the words of appropriate songs, hymns, psalms, &c. These latter are selected from various Hymn Collections, and are entirely devoid of anything in the shape of denominationalism. In a future edition this collection will, we trust, be greatly enlarged, and still the book be sold at the same price. Henceforward the Acadian Minstrel will be used in the Normal School not merely as a text-book, but as a guide in devotional psalmody. We take this opportunity of tendering our best thanks to Mr Webster for his kindness in compiling this volume, and to Messrs. A. & W. Mackinlay for their enterprise in publishing it in such a handsome and substantial form.

## AGRICULTURAL.



## II.—PRACTICE OF AGRICULTURE.

## HINTS FOR THE SEASON.

Want of success with the farmer, as in most other pursuits, more frequently results from inattention to little things, than a neglect of what are usually regarded as more important matters. The following excellent hints are from the *Canadian Agriculturist*:—

All kinds of stock, including horses and sheep, and even pigs,

should as far as possible, be kept dry and warm. Most farmers have the means of doing this to a greater extent than is in general found to be the case. A little battening, or even old cast off pieces of clothing, will, in some situations, do a great deal in stopping crevices between the boards of stables and barns thereby mitigating, if not wholly preventing, the baneful effects of cold draughts on animals. This should be among the farmer's first considerations. As to provender, it is not so much the amount, as the quality, and particularly the regularity and manner in which it is given that constitutes its economical value. For want of system and punctual attention, cattle with abundance of food sometimes do very badly. A little provender, especially if cut and mixed, when consisting of different substances, and given with regularity three times a day, will keep stock in a more thriving condition than a much larger quantity given but once.

With clean bedding, warmth and shelter, pure water and regular feeding, with a small amount of prepared and mixed provender, punctually given two or three times a day, cattle will thrive and continue healthy through our longest and coldest winters. Nay, they will do much better under such a system of management than with a profuse supply of hay under the treatment they at present ordinarily receive. It should ever be borne in mind that when animals are exposed to filth, damp and cold, the greater portion of the food they consume, however good or abundant it may be, is absorbed in generating animal heat, without administering to the growth and fatness of the body. Hence the primary importance of warmth and shelter to all kinds of domestic animals.

When we speak of warmth and shelter, it must not be understood as excluding the external air, and thereby preventing ventilation, which is a condition second in importance to none, to animal health and comfort. Except in extremely cold weather, stables and stalls for cattle should be kept perfectly airy so as to avoid always currents; and light and dryness, are likewise among the necessary conditions of health and comfort. A dark, damp stable for horses, is the most unfavorable condition in which that noble and useful animal can be placed. Colts and young stock generally, require strict attention and liberal feeding during winter. It is a fatal mistake, although often committed, to stint young stock in their food, or to give them provender of an inferior quality. By this means they will become stunted in growth, and no subsequent care and feeding, however liberal, can possibly compensate for such injuries. Young stock in particular should be kept well from the first. The care of sheep in such a climate as ours, demands the greatest care and attention during winter and early spring. Sheep must be yarded in cold weather; but no animal suffers more severely from too close confinement and want of fresh air. They must therefore, not be put too thickly into yards, be kept clean and dry, fed with well chopped hay, straw, and pea haulm, in conjunction with roots, and a little bruised oats and flaxseed, or oil cake, once a day. With such treatment sheep may be carried through our long winters, and increase both in carcase and fleece, and therefore in money value.

The good housewife will not fail to give special attention to her poultry at this season. By affording them warmth and shelter, and liberal feeding, a good supply of eggs may usually be obtained, and the birds sustained in a healthy and thriving condition. Warm food, with a small supply of minced flesh, and letting them have access to lime, sand and water, with perfect cleanliness, are the chief indispensables to success in the keeping of poultry.

## NOVA SCOTIA APPLES.

The following from the *Maine Farmer*, shows that Nova Scotia is beginning to be known abroad:—

"While our Maine farmers are deploring the failure of their fruit, our Nova Scotia neighbors can now supply them with a quantity of nicer apples than we often raise. I am informed that 60,000 barrels of apples were shipped from Annapolis

county in 1852. This season the crop is said to be very light by those accustomed to large crops. I will here give the condition of one orchard which I recently visited in Bridgetown. The enterprising proprietor, Wm. Miller, kindly introduced me to the orchard, and furnished the following statistics of his crop. From 200 trees he sold 600 barrels in 1854, at \$2.00 per barrel; in 1857, 240 bbls. at \$3.00; in 1858, 420 bbls. at \$2.00; this year estimated crop 200 bbls. just at \$2.25. In the spring of 1853, he received a quantity of setons from "Vassalboro' Nursery," Maine, and engrafted them on old trees, which are now bending, and the branches even splitting under the weight of apples. One, for instance, which was then one foot in diameter, was grafted with Baldwins, and is now loaded with six barrels at least of nice apples, which with previous crops, will amount to sixteen barrels, sold at from \$2 to \$3 per barrel. I noticed trees in other orchards, and by the roadside, which were propped up to support the load of apples, while some branches which had been neglected had split down."

### EDUCATION OF YOUNG FARMERS.

Put your sons on a good farm for two or three summers, where they will earn their living, and at the same time gain such a practical knowledge of their business as the boy does who enters as an apprentice upon any of the mechanic arts. The owner of the farm upon which they reside should be able to direct their operations intelligently, and to call their attention to the theories of the growth of plants and animals, to the advantage of high cultivation and manuring, to the principle of draining, irrigation, subsoiling, fallowing, tree raising, training of plants for ornament or use, or whatever else will beautify or replenish the earth, and at the same time bless mankind.

The second summer the boys might obtain wages, and then earn something with their own hands to aid in stocking their farm. For one or two winters that succeed their summer labor, they might pursue such studies as would have a direct bearing upon the cultivation of the soil, and make themselves familiar with the theories or experiences of those supposed to understand the matter better than themselves. One winter, however, should be spent upon the farm where a good stock of cattle is kept, so that a thorough knowledge of the modes of winter feeding and tending of the various kinds of stock should be gained.

With a proper *reading up of the subject*, as the lawyer or the physician reads, and the experience which we have already suggested, we believe a young man may be better qualified to enter upon and manage a farm, than by any other process within our knowledge.—*N. E. Farmer.*

### FEEDING COWS.

A correspondent inquires how much hay a good-sized milk cow should eat per day, fed on hay alone? How much, without roots, and how much when not giving milk? A common guide is, we believe, that animals require about three per cent. of their live weight. But no fixed rules, we think, are reliable. Two cows standing side by side, of nearly equal weight, and fed precisely alike, will vary materially in the amount of milk, which they will yield; or in fattening, one will gain a half or a third more than the other, on precisely the same kind and quality of food.

Horses should be confined to limited quantities, as, if supplied with the fodder, they will eat more than is healthful or economical. Milk cows may be allowed all the hay they will eat with a good appetite, and to that may be added with economy a little grain, or occasional messes of oats. Of course, a cow that gives no milk, will not require so much feed as one that has that constant draught upon her.

The whole matter of feeding stock requires experience, and then the exercise of a sound judgment, in order to economize the fodder, and get a profit from the animals fed.

A sufficient number of reliable experiments have not yet been instituted, to show those feeding stock whether it is best to feed hay, grain and roots in a raw state, or to incur the expense of cooking it. From the experiments instituted, and which have come to our knowledge, we are inclined to the belief that an economical arrangement for steaming, soaking, or partially cooking food for all farm stock, will be found, in the end, the most profitable course to take with it.

Mr. O. H. WARREN, of Groton, Mass., a gentleman who has an inherent love for agricultural pursuits, and who is willing to expend a portion of his means to promote the interests of the farmer, recently informed us that he had been cooking hay for a herd of twelve cows, and had continued his experiments through several consecutive months. His first trial was by steaming the hay, supposing that by subjecting it to a pressure of some ten or fifteen pounds of steam, he should so affect the fibres of the hay as to make it soft and palatable, and commence for the animal that is to consume the food, the first process of digestion. To his surprise, however, he found the steam would not accomplish this desired result; the hay came out about as hard and wiry as before it was immersed, and without receiving any evident advantage from the process.

His next experiment was to heat water and pour it upon the hay, covering the box, and allowing the hay to soak in the water twelve hours, and feeding only twice a day. Under this process his cattle gained flesh, and the milk cows gave an increased quantity of milk, upon an amount of hay a little less than two per cent. of their live weight.

Mr. C. M. DAVIS, a milkman, in Cincinnati, recently communicated some facts to the New Orleans *Price Current* which are applicable here. He says.

"I commenced the use of your steam-boiler on the 7th inst., at which time my ten cows gave 60½ quarts. My daily feed was ten buckets of middings, and corn and cob meal about equal parts.

Cows gave in the commencement,	60½ quarts.
On the 8th they gave,	66 "
9th (reduced feed two buckets),	69½ "
10th they gave,	71 "
11th " "	73 "
12th " "	73½ "
13th " "	79 "
14th " "	77½ "

My milk has improved in quality, and my cows in appearance. I shall make further experiments, in feeding the corn and cob meal separate, as also with clear cob meal, and report again in about ten days."

From this it appears that the gain in seven days was 17 quarts, being 28 per cent. gain in milk, with a saving of 20 per cent. in food.—*N. E. Farmer.*

### SETTING AN APPLE ORCHARD.

The setting of an orchard by any one, young or old, is a work of too much importance to be done indifferently, or without that careful consideration which any work demands that is to remain for fifty or a hundred years, and that is to stand both as a work of utility and beauty. Few persons who plant an orchard can reasonably expect that all its profits will accrue to themselves; for if it is well done, it should last seventy-five years, at least, and if it is poorly done, there will be no profit from it. They work, therefore, for another generation, and that work ought to be done so as to elevate, beautify and make profitable,—that in the end, the earth shall be so fruitful, and all material things so blending and co-operating with it, that the mind itself shall be drawn into harmony, and this fair land of ours truly become the garden of the Lord.

It is with this view of the matter that we shall reply to the inquiries of our respected correspondent in the following letter: "DEAR SIR:—I wish to put out an orchard the following spring on the soil here described; a pine surface soil from six to fifteen inches in depth, underneath which is a subsoil of gray and red clay, termed in this section, "hemlock soil" compact,

and very retentive of water. I wish you, through your columns, to give advice in regard to setting the trees, and answer the following questions.

1. How far apart should the trees be put?
2. What method is best in making the root bed?
3. Would you fill in the bottom with small stones?

An early answer through your columns will oblige greatly an old reader and subscriber.

Colchester, Vt., Jan., 1860.

A. A.

As the writer is evidently going to work considerably in an enterpriso, and desires to do all things well, we will allude to one or two things before making a direct reply to his first question.

The thrift, continued prosperity and profit of an orchard, like other crops, will depend, mainly, we think, upon the condition of the soil upon which it stands. If the soil is "compact, and very retentive of water," little profit will be likely to accrue from it, whether devoted to an orchard or any other crop. The first step should be to drain it, and if the labor to do this is found too heavy and expensive, commences upon one edge of the piece to be appropriated to trees and drain the water off to the depth of three or four feet, if it is practicable. After this, plow a foot deep, or two if you can, manure highly, and work it intimately with the soil. When this has been done, the field is ready for the reception of the trees. Now comes the question as to the distance apart which they should be set. This depends much upon circumstances. If one is a young man, has a large farm and plenty of team to do a good deal of plowing, with manure to cover many acres, forty feet apart is not too much for the trees. Under the most favorable circumstances, the branches of these trees would never meet so as to obstruct their growth, or in any manner to interfere with each other. If the land under them is kept properly cultivated and manured, they would probably cover its whole surface, and the results would be all that ought to be expected from a good orchard. If, on the other hand, it is desired to plant an orchard on hilly and rocky land—where apple trees often thrive the best—and where plowing and the application of manure would be quite expensive, we should certainly advise to occupy a less breadth of soil, and place the trees thirty feet apart, or even thirty feet one way and only twenty-five the other, with the view of shortening them in a little after the lapse of twenty years, if their branches should meet, rather encounter a soil so expensive to work. In the case, also, where a person has a decided taste for the cultivation of apple trees, and wishes to occupy a considerable portion of his time in that particular item of farm industry—and where he does not keep a strong team of oxen or horses, and is limited in his manurial agents,—but still wanting a considerable number of trees, we should advise to set them within thirty feet of each other.

The second question of our correspondent,—"*What method is best in making the root bed?*" has been pretty nearly answered in what we have already said about the preparation of the land. But, briefly, we would suggest to lay out the field at whatever distance is thought best, then dig the holes five or six feet in diameter and eighteen inches or two feet deep, throwing the black soil on one side, and the yellow or subsoil on the other. When this is done, return the black soil to the bottom of the hole with any old, well-decomposed manure, and the bed for the tree is ready. The centre of this hole should be the exact line in both directions, and while one person holds the tree steadily in its proper position, another should carefully single out all the small as well as the leading roots, making them radiate in every direction, and cover them with fine and rich black earth. The space under the base of the tree should also be filled with soil, so that no roots be left to gather mould and then decay. The tree should be set at the same depth in which it grew, and some excellent orchardists say with the same side to the sun. The black earth may now all be returned to the hole, and then the subsoil, which completes the work. A good tree set in this careful manner will make more growth in six years, than one of the same quality indifferently set will in ten years, and the probability is that in the course of fifteen years it will many times repay the cost of the extra care it had received.

In reply to the third enquiry, we would say, that if the surface abounds with small stones, and the land is not well drained, it certainly would afford some scope and protection for the roots if underlaid with a liberal bed of stones; they would tend to a more rapid drainage immediately about the tree, and if the spaces between them were filled with loam, the roots would travel and find supplies there. We cannot see that they would be injurious under any circumstances.

**BONES FOR FRUIT TREES.**—There is nothing like decaying bones for all sorts of fruit trees. They are perhaps best for pear trees, next for apples, and then for quinces; but are good for any kind of fruit unless it be cranberries, which seem to live and grow on little but air and water. If it is not convenient to reduce the bones in sulphuric acid, break them up small and place them about the roots of the tree.

#### OFFICIAL NOTICES.

We beg to acknowledge, with thankfulness, the reception of a few contributions from some of our Agricultural friends, and the promise of more from others. We believe we are found fault with by some of our farming friends because we allot so small space in our Journal to this department. In reply to this allegation we have only to say, that this is the fault of the farmers themselves and not ours. We insert with cordiality every contribution we receive, and we only wish that they would consider the pages of the *Journal* their own and fill them with the matter most likely to prove of general utility to their numerous fellow-workers throughout the Province. Then would our periodical serve at least one of the ends for which it was set agoing. We should like exceedingly that the Secretaries of the different Societies would send us not only a brief statement of their present condition, but of their past history, such, for example, as the one from the Truro Society inserted in the present number. This is the time for drawing up such statements. In two or three months the farmers will be all busily occupied with the labours of the field.

Are any of the Agricultural Societies petitioning the House of Assembly for the restoration of the original grant to each county?

#### YOUNG MEN'S MUTUAL IMPROVEMENT AGRICULTURAL ASSOCIATIONS.

The Truro Agricultural Society recently took into consideration the best means of awakening a deeper interest in the cause of Agriculture throughout the district. Amongst other schemes it was proposed to form Associations of young men in various localities embraced by the operations of their Society, for the purpose of holding weekly or fortnightly meetings for the discussion of various topics connected with the pursuits of Agriculture, &c., &c. Meetings were appointed to be held, to be attended and addressed by different members of the Society, and we understand that one or two such Associations have been organized, which promise to be of good service to the cause of Agriculture. What is to hinder the different Agricultural Societies to organize two or three such Associations within their respective bounds? We shall give particulars in our next, along with the constitution and regulations of the Onslow Young Men's Mutual Improvement Agricultural Association.

## ANSWERS TO QUERIES.

*Query 3.*—Are any artificial fertilizers used, or any attention given to the manufacture of Compost Beds?

This query was propounded entirely for the purpose of eliciting the views of the different localities on the all important subject of manures, and from the answers received we have obtained a considerable amount of information, and, at the same time, additional confirmation of opinions long entertained. By far the greatest proportion of the replies admit that this subject has not yet received one half the attention its importance demands. Some again state that it is beginning to claim no small share of interest on the part of some of the more industrious of our farming population.—And a few others refer with much gratification to the advancement that has taken place within the space of a few years in Compost Beds and in the use of artificial fertilizers.

Our decided opinion on this, as on many other matters connected with Agriculture, is, that we are at present in a kind of transition state. Many of our farmers in the more advanced settlements have learned from experience the advantages to their crops of a copious and judicious application of fertilizing manures. Others, again, are studying the subject, and are beginning to understand the dependence of the plant on the soil, and the philosophy or rationale of that dependence. And others have seen, with their own eye, the effect upon the growth of certain crops by the application of Bone dust or some artificial fertilizer. In one word, attention is now directed to this subject, and all that is required is the imparting of a more powerful impulse by the diffusion of scientific knowledge, and the concentration of experimental effort,—the former by lectures and agricultural periodicals, and the latter by the agricultural societies, clubs, &c.

The first practical point in our estimate to which the attention of our farmers should be directed, is, the means that ought to be employed for the purpose of increasing the quantity and improving the quality of our common manures, whether they be organic or inorganic. Much has recently been spoken and written on the subject of artificial fertilizers, and in a more advanced condition of farming these may be introduced with great benefit. In the mean time, our great concern should be how to increase the quantity and give more value to what already is at our command. The natural manures of Nova Scotia are exceedingly abundant. They meet us in every direction, in the barnyard and in the swamp, in the bog and in the mountain, in the intervals and in the marsh, in the vegetable and animal deposits, and the question is, Do our farmers avail themselves with anything like steady industry of what is thus within the immediate reach of all—some of one kind and others of another? We are satisfied they do not, not even of one half, and hence the crops of our Province, both in cereals and roots, are not much more than one half of what they might and ought to be.

But let us be somewhat more particular. How little comparatively, for example, is done for increasing the quantity, and still less for preserving the virtue, of the solid stable manure. Of the forty thousand of our population engaged in agricultural pursuits, we do not believe that there are even a thousand who use the slightest means for the preservation of the strength or virtue of the stable manures, and the result is, that though it may remain the same in bulk, it is, as consigned to the soil, deprived of nearly one-half its value. Some of its ingredients, such as ammonia, are exceedingly volatile, that is, they easily pass into an aeriform state by a process of evaporation. Others, again, possess the property of solubility, that is, when the manure is in a process of decomposition, pass into a fluid state, and are almost entirely lost to the farmer. And what is necessary to be done for the preservation of the one and the other of these ingredients? To prevent the ammoniacal vapours

making their escape, the manure heaps ought to be covered when passing through a process of fermentation. This may be done in two ways; either by constructing the barn so to hold the manure under its roof or under some part of the flooring; or by the erecting of a roof or shed so that it shall be protected from the rain or snow. It were well too, and would far more than compensate for the expenditure, were the manure heap every now and again strewed with a little gypsum. This would convert the volatile ammoniacal vapours into fixed sulphate of ammonia, and thus retain its virtue. This, too, would render the air of the stables, when the manure heap is under cover of the barn roof, far more pure and wholesome for the cattle.

But how are the soluble particles, or the parts that have gone into a state of fluidity, to be preserved? These oftentimes contain the very strength of the substance, and every means should be employed for their careful preservation.—For this end the place where the manure heap is deposited ought to be dug out or hollowed, and the sides and bottom made tight with planks or clay. And the more thoroughly this is done, the more valuable will be the manure. It would be of great advantage in the Fall to put two or three feet of Peat Moss or Bog Mud at the bottom of the pit.—This would receive any solutions that may descend, and would add considerably to the quantity.

But whilst every possible care should be taken of the solid stable manure, what, it may be asked, is to be done with the liquid? It is well known that comparatively few of our farmers use any means for the purpose of gathering and preserving the liquid manures, and in consequence no small loss is sustained in the growth both of grain and root crops. And the reason of this is obvious. Though the solid and liquid manures may be composed of pretty nearly the same ingredients, they exist in very different proportions. There is, for example, but a very small proportion of nitrogen, potash and soda in the solid, whilst there is a very large one in the liquid,—and these constitute the richest fertilizing ingredients. Nitrogen is considered to be as powerful as the purest guano, and all know the value of the alkalies in the growth of roots. Johnston estimates a 1,000 gallons of this manure to be equal to that of a hundred weight of guano.—The farmers of Flanders, who save all this manure in tanks, consider the annual value of a cow in this respect to be ten dollars. The method of preserving and using this manure is thus described by Dawson:—

“The liquid manure should be collected, either in the pit or hollow intended for the other manure, or in a separate pit prepared for the purpose. The latter is the better method. If a tight floor can be made in the stable, it should be sloped from the heads of the cattle, and a channel made, along which the urine can flow into the pit. If the floor is open, the pit should be directly beneath it, or the ground below should be so sloped as to conduct the liquid into the pit. In whatever way arranged, the pit should be tight in the bottom and sides, and should be filled with soil, or peaty swamp mud, to absorb the liquid. Gypsum may also be added with great benefit; and the urine pit may very well form a receptacle for door-cleanings, litter which may accumulate about the barn, and every other kind of vegetable or animal refuse. These additional matters may occasionally be protected, by adding a new layer of peat or soil to the top. The pit for liquid manure should be roofed over. A method much followed in Britain and the continent of Europe, is to collect the urine in a tank, and add sulphuric acid to prevent waste of ammonia. When used, the liquid is diluted with water, and distributed to the crop by a watering cart. This is too expensive for most of our farmers; but when it can be followed, it will be found to give an astonishing stimulus to the crops, especially in the dry weather of spring. Gypsum may be put into the tank, instead of sulphuric acid.”

There are other organic manures, such as bog mud, leaves, bark, saw dust, straw—dead animals, blood, fish offal, sea

wreeds—bones, wood ashes and soot—&c., &c., all less or more within the reach of our farmers, and the appropriate application of which would increase the produce of our Province at least one half more than it now is, and that too with the same amount of arable land; but on these manures we cannot now enlarge. The first thing that our farmers should look after is the due preservation and use of their stable manure, both solid and liquid; and, having done so, they will then be in a right position and possessed of all the greater capabilities for besting themselves to the application of others.

### 111.—AGRICULTURAL INTELLIGENCE.

#### COLCHESTER AGRICULTURAL SOCIETY.

The Vice President and Secretary of the "Colchester Agricultural Society," at the request of the Society beg leave to report to the President of Agriculture for the Province of Nova Scotia the position of the Society as presented from a short sketch of some of its proceedings up to the thirty first day of December A. D. 1859.

On the 16th day of January A. D. 1840 this Society was formed in Truro and farmers from every agricultural District in Colchester became members of it, so that shortly after its formation it numbered one hundred and forty five members.

Much interest seems to have been taken in the cause of Agriculture by those instrumented in the formation of the Society. Their first step was to petition the Legislature, then on the eve of sitting, on the interests of Agriculture. The Petition is full of those feelings which should animate the farmer, and forcibly delineates the true spirit of Agricultural Legislation. While it deplored the want of unanimity and combination on the part of the Agricultural interests of Nova Scotia, in upholding their claims before the Legislature, the petitioners gladly availed themselves of the opportunity then afforded of presenting those claims to the notice of the House of Assembly, earnestly soliciting the House to aid and support them in rendering available the many advantages which the County of Colchester possessed, when submitted to the test of scientific improvements, which they felt satisfied the House had every disposition to encourage.

In organizing this Society the petitioners were impressed with the conviction that something more than common place exertions were necessary both on its part and on that of the Legislature, to place Agriculture the most important Branch of all our Provincial resources on that respectable footing, which from the capabilities of the soil it is fully entitled.

The petitioners prayed therefore that the Honorable House of Assembly be pleased to confer such privileges as are usually required to guard against derangement in carrying on their operations and grant them such a sum of money as would enable the society to excite emulation, and introduce such a system of cultivation as would test the numberless variety of means with which this County abounds, for fertilizing the soil, and enriching its possessors, and thereby remove the stigma which at that time but too justly attached to the name of "Farmer."

The petition was well received, and the Society through the late "Central Board of Agriculture" secured to the county £75 annually four consecutive years. The Society was then enabled together with its own resources, during those years, to furnish its members with clover and other seeds at cost and charge, to hold ploughing matches, improve the breeds of stock, hold Exhibitions, introduce farming implements into the county, and in many other respects conserve the Agricultural interests of Colchester.

In the year 1845 and 1846 other Agricultural Societies had commenced to be formed in the County. With their formation,

the operations of this Society became restricted, and made it become more of local than, general interest; though it has ever been looked up to as the parent Society, and as such has been the mover in many important undertakings that have proved of general advantage to Agriculture. From this time to the present the Society has received only a portion of the original Grant in common with other Societies, and the Grant to the County instead of being augmented, has on the contrary, from time to time been diminished, until at last it has grown beautifully less. The Grant to this County for the past year being only £30, seven pounds and ten shillings of which this Society had the privilege of drawing. The formation of other Societies in the County, and the diminution of the Provincial Grant; then its division amongst this and three other Societies, has been felt a severe blow to the cause of Agriculture in the county, as far as the operations of this Society are concerned. The pristine glory of the Society, from this cause, would appear to have departed; for the original list of members, 145 in all, had in the year 1850 dwindled down to 40.

However on the 8th of October of that year (1850) the Society held an Exhibition in Truro, which did the cause of Agriculture much benefit by exciting a healthy emulation among farmers, 67 of whom entered the lists for competition. Six years afterwards the Society numbered 40 members.

On the 13th October A. D. 1857 the Society again hold an Agricultural Exhibition at Truro, at which only 37 farmers competed, and among whom some thirty pounds were distributed in prizes. The Exhibition passed off very creditably. The small number of Exhibitors at it, being attributable to the fact, that but few farmers out of Townships of Truro and Onslow took part in it.

A sketch of the last Exhibition held by this Society may more properly be considered our Report for the past year. This Exhibition was held in Truro the 13th day of October A. D. 1859. It came off with much hotter eclat than was at first anticipated, owing to the apparent apathy of the farming population. The day however proved propitious; and the Railroad Commissioners kindly making it an Excursion Day added much to the success of the Show. The premium list amounted to £40, twenty five pounds of which was made up by the Society, by private subscription and by entrance fee. The balance of £15 being the Provincial Grant for the year to this, and the New Annan Agricultural Society; that Society co operating with this in the Exhibition.—Sixty two competitors (fifty of whom may be considered members of this Society) contended for the various prizes. We trust the Exhibition taught our farmers a useful lesson on the necessity of improvements, as in the working cattle class, there were only two or three yoke at all above mediocrity.

The Cows exhibited were scarcely worthy of a place in a show yard. The horse department might be considered a total failure, as among 20 or 30 horses of various ages, there was none that would in the western counties, be considered worthy of a prize.

Among the young cattle however were some fine specimens of thorough bred Ayrshire and Alderney, and one calf of Ayrshire cross of perfect symmetry which commanded universal admiration.

Some fine specimens of sheep were on Exhibition both of Leicester and South Down breeds, as also some fine Berkshire pigs, which were highly prized.

The cheese and butter exhibited were of no ordinary description, both forcibly proving the ladies of Colchester are highly conversant with the duties of the dairy.

But turning to the vegetable department we come to the redeeming feature of the day, as we are convinced that no finer specimen have ever been exhibited in Nova Scotia. Turnips and mangel Wortzel of fabulous dimensions, beets and carrots equally remarkable, and potatoes, especially those from New Annan, the wonder and admiration of every beholder. The exhibition of cereals, considering the unfavourableness of the past season was very respectable. Oats weighed 42 lbs to the bushel and those which obtained the first prize (the Poland) though not quite so heavy, were remarkably fine. The wheat was superior, weighing in no instance less than 60 lbs. to the bushel



and that which took the first prize, little, if any short of 69lbs. Some specimens of barley and other grains from New Annan were considered remarkably fine, to some of which prizes were awarded.

The lack of specimens of fruit seemed to be a great want, and which no Nova Scotian Exhibition should be without. However for the fruit exhibited the show was indebted to New Annan, which place furnished some excellent specimens of apples and a very fair sample of pears.

The homespun department was of that character for which Colchester is so justly famed, and in addition there were some fine specimens of rugwork and carpeting. The rugs were in great variety, both hooked and yarn rugs, some of which were remarkably well made, and added much to the appearance of the Show. There were also on Exhibition in this department, blankets, socks, stockings, straw bonnets and hats, all worthy of the inspection they received.

The Exhibition was closed by an address of an hours duration from the Revd. Dr. Forrester whose remarks, on the adaptation to specific purposes of farm in different localities, and on the cultivation of root crops, were most practical. The Reverend gentlemen concluded by an offer of £5 to the Colchester farmer who should in the year 1860 raise the greatest and best crop of turnips on an area of five acres, or if there were none to raise a crop of five acres; £4 to him who should be found to raise the best one on four acres, or £3 to him who should raise a three-acre crop, or he would, if none were found to raise more, give £2 to the farmer who raised the best two acres of turnips, but he would descend no lower.

The Society held a public meeting in the Court House in the evening, at which the names of successful competitors were announced. After which several gentlemen addressed the meeting on the interests of Agriculture, and at its close, the operations of this Society for the past year, may be said to have terminated.

Truro January 2nd A. D. 1860.

DAVID McCURDY, *Vice President.*  
ISRAEL LONGWORTH, *Secy. Col. Ag. Society.*

REV. ALEXANDER FORRESTER, D. D.,  
President of Agriculture for the Province of Nova Scotia, &c. &c., Truro.

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