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ADDRESS

DELIVERED BEFORE

THE JEFFERSON COUNTY AGRICULTURAL SOCIETY,

AT THE

ANNUAL CATTLE SHOW,

28th SEPTEMBER, 1830.

BY V. LE RAY DE CHAUMONT.

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" THE PLOUGH IS OF NO PARTY."

PUBLISHED AT THE REQUEST OF THE SOCIETY.

1830.

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ADDRESS.

GENTLEMEN OF THE SOCIETY,
AND FELLOW-CITIZENS.

WE meet on this annual occasion under the most favourable circumstances. This has been an unusually healthy and productive year. Our Society, the second in age in the State, is now "the only existing monument of its kind of that enlightened legislature, which so judiciously appropriated a portion of the funds of the State, for the noble object of promoting agriculture."*

Far from being dispirited by the withdrawal of its support, we have drawn new energies to our aid—we have kept alive the sacred fire and will keep it still brighter and brighter, until it shall again extend over the State; we have held out to our fellow-citizens an example by which they may see the benefits to be derived from it, and in progressing steadily in usefulness and prosperity. We have improved our rules and regulations, and thereby acquired the support of many who before had objections to join us. The spirit of liberality which had presided over the subscriptions has increased, but not so much in proportion with other classes among our farmers, and particularly those of the south part of the county. Their distance from our place of meeting is not however a good excuse, since we have allowed an extra compensation in such cases, and at any rate, it would not apply to the most important premium, that upon farms. It is the Viewing Committee who suffer by the distance, and they have cheerfully travelled to the most northerly points of the county, where they have seen a zeal that was as unexpected as it was pleasing to them, and which the south ought to emulate.

* New-York Farmer, Sept. 1829.

The labours of this viewing committee, composed of some of our most intelligent farmers, who go every year through those parts of the country where farms are offered for premiums, collect and interchange information, and afterwards embody part of their observations in a report which is read to the society, appear to me to be among the most important results of our institution, and sufficient in themselves to justify and repay all we do to sustain it. The individuals who have at different times composed those committees, deserve our warmest thanks. Their influence, considered as a channel of information, as a connecting link between the different parts of this county, would be far greater if more towns should invite their attention. Their able reports have generally encouraged us by the account they gave of the improvement we make every year, and I feel pleasure and pride in adding the flattering testimony of one of the most enlightened landholders in the state, whose property lies principally in St. Lawrence county, and who in answering an application for a subscription, says, that "no person can travel through the county of Jefferson without remarking the change which has taken place in our agricultural condition," and that it is indisputable that our society has given an impulse to these improvements. This compliment was not a mere show of words, as it was backed by a remittance of fifty dollars.

It can hardly be suspected at this day that intelligent farmers, even if they should yet see some points in our society which might be improved, have great doubts upon its general utility, or believe that such societies cannot do much good, because they are sometimes partly conducted by persons who are not labouring farmers. No mistake could be greater than this. To cultivate well your farms, and raise the greatest possible quantity of the productions which have been raised by your fathers, are undoubtedly important objects of improvement; but among an intelligent and industrious people they cannot fail of being attained, and they will, without an agricultural society, make a good country, producing plenty of food and raiment for the population, and perchance for a little exportation. But

will this ensure the prosperity and growth of the country under all the vicissitudes which the world is almost daily undergoing? Far from it. Look at the cotton, tobacco and rice, the principal articles of exportation of these united States; the wines of France; and in short, almost all the agricultural products which now form the basis of the riches and power of civilized nations. Were they known to our ancestors a few hundred years ago? Who introduced them where they seem to be indigenous? Not only they were not farmers, but they have sometimes been opposed most strenuously by the very class who were to derive most advantage from the introduction of a new plant. Such reproach I know could not be incurred by the American farmers. They show themselves ready to adopt what appears advantageous, and therefore agricultural societies are calculated to be very useful in this country, since their object is not only to improve the mode of cultivating the common products of the country, but to introduce new ones. To the great staples which I have above mentioned, it is probable that in a few years two will be added, or perhaps even by another change in some other country, will take the place of one or more of those.

Hemp, one of those articles to which I allude, has been cultivated with great success in many parts of the United States. It is a fact well ascertained by numerous experiments and confirmed by the navy commissioners in their reports, that American hemp is preferable to Russia. I see in a publication from one of our most enlightened agriculturists, (Judge Buel of Albany,) that "the United States pay annually to the foreign cultivators and manufacturers of hemp, more than two millions seven hundred thousand dollars. There is therefore little danger of glutting our markets with this necessary production. Most of the states from Tennessee to Maine already grow hemp, and in this state it is successfully and profitably cultivated, particularly in the counties of Orange, Saratoga, Washington, Tompkins, &c. upon most of the soils which yield a profit in the ordinary productions of agriculture." After some farther remarks upon soils adapted to hemp, Judge Buel adds, "It will do well on

any soil that will grow good flax," and he concludes that it will be profitable to the American farmer from the following facts: the quantity grown among us has greatly increased and probably quadrupled within the last four years. Few have abandoned its culture who commenced it under favourable circumstances, while many are annually turning their attention to it. Foreign hemp has increased in price on account of the tariff: one half of the ordinary expense in cleaning and preparing it for market may now be saved by the newly invented machine for separating the lint from the fibre; and the process of water rotting increases the value of the article, and renders American hemp equal in value and quantity to Russian or Piedmont. A select committee of the legislature of Ohio, made an elaborate report last winter, in which they speak favourably of the climate of our part of the United States for its cultivation, and conclude their remarks upon the soil adapted to it, by saying, "any land however that will bring a good crop of flax, corn or potatoes, will bring a good crop of hemp." This report published in the *New-England Farmer*, is a good treatise upon the cultivation of hemp, and would alone repay a year's subscription to an agricultural paper. I will however endeavour to obtain the information it procures in some shape during the winter, so that those who have proper grounds for it may if they choose try it next spring. On that head I would not be understood, in quoting what I have said above of the grounds which produce hemp, nor is it either the meaning of those papers to recommend its being sown on lands, such as would but strictly come under that designation, at least in any thing like large crops. On the contrary, I think it is important to try it first under the most favourable circumstances. I am dispensed from giving you estimates of the probable, and accounts of the actual benefits of this new staple, by referring you to our neighbours of Lewis county, who have been before us in this branch. On the same principle that I avoid exciting you by highly promising statements, I would warn you against drawing conclusions too hastily from what you see yourselves. Inquire well into the nature of the soil and the state in which it received the

crop. Examine such lands as you have to devote to that plant when they have been well prepared. You need not think of putting hemp in an indifferent soil, half tilled and already overgrown with thistle. Failures in such cases prove nothing. The question of the soil being exhausted by it, I should think to be in a great measure relative to its natural quality and the price of the land. We might afford to let any of ours which would bring a net profit, such as I have seen mentioned under the most respectable authority, lie dormant for ever thereafter: and even under ordinary circumstances it is probable that with a proper rotation of crops, the injury done to the soil will be repaired. I do not find this subject treated in the writings I have consulted, or if it is, it has escaped my notice. One article however I have met with in the *Troy Sentinel*, which contradicts the received opinion on this head, and I believe in fact that it will be found to be exaggerated. Hemp has now been raised sufficiently long in this country to have an opportunity of judging the question, and it is well worthy the observant agriculturist. It has been observed that our lands hold their quality remarkably well without manure. There are not far from this village lands which have been cleared more than twenty years ago, and which have given and give yet without manure, very good crops of wheat. A large establishment for the rotting and dressing of hemp has been made at Copenhagen, in Lewis county, and is a credit to its proprietors and to the country. One for the same purpose has been made at Juhelville, opposite this place, but unfortunately was never in operation on account of the failure of the person who put it up. There can be no doubt of its being placed in activity next year.*

* A Mr. Wedge of Lewis county, sowed last spring fourteen acres to hemp, and had delivered a part of the crop on a contract with the owners of the works at Copenhagen, who had agreed with him and others to give fifteen dollars a ton. Judging from what he had delivered, his fourteen acres will yield fifty tons, or a fraction over three and a half tons per acre. The preparation of the ground was the same as for corn. I quote this, not be-

The second article above alluded to as likely to be added to our products, is *silk*, for which we pay annually above *ten millions* of dollars to foreign countries, but which will probably be shortly produced in the United States in sufficient quantities for consumption, and even exportation, and will partly be manufactured here. It is now ascertained and acknowledged in France, that the quality of the raw silk is superior to that of other countries, and no difficulty exists in producing it to any extent. The white mulberry tree, on which the worm feeds, will succeed well here, so far as we can judge by analogy and the short experience we have had.* The leaves may be gathered by children after school hours, and females from twelve to fifteen are amply sufficient to attend to the worms within doors. Mr. Rapp, in a letter dated Economy, Pa. 30th June, 1830, says, "adhering to the instructions given in the American Farmer, and books treating on the culture and manufacture of silk, we find *no difficulty* in keeping the worms healthy, unwinding or reeling the silk, or weaving it." In 1828, the industrious society directed by him, made a small beginning; they have now made *stripe* for female apparel, vesting, and one hundred handkerchiefs, of a good quality, and feel sufficiently encouraged to have erected a *two-story building*, 24 by 44, for the worms and the various operations of the silk manufacture. It appears, however, that the finer textures of silk require a *more* delicate process for reeling, so much so, that it is only in the south of France and north of Italy that it is well understood. Congress will probably next winter pass a law, which they had no time to act upon last session, providing for the *teaching of skilful*

cause I have reason to believe that it is a favourable specimen, but merely because I happened to have heard of it, and of no other. Some of my neighbours had small pieces which gave a far greater produce in proportion.

* It grows luxuriantly in Massachusetts, where it was introduced forty years ago. It is no uncommon thing there for the plants to be cut down by the frost during the first winter; but they shoot up again and grow with fresh vigour in the following spring.

reelers, and meanwhile the family reel will answer for family use, and our ladies may shortly attend our anniversary in silk dresses of their own manufacture.*

It was a most gratifying surprise for me on my return to the United States, after a year's absence, to find the great improvement which had been effected in the morals of the people in the use of ardent spirits. If there was one cause capable of checking and arresting the unexampled prosperity of this country, it was the frightful increase of the vice of intemperance. For the last thirty or forty years, a great melioration had taken place in the customs of the richer classes in that particular. A fashion, imported from England, was prevalent in our cities at that period, of sitting at the dinner-table many hours after the cloth was removed, and it was no uncommon thing nor was it esteemed derogatory, for men of respectable standing, to drink to an excess on these occasions, which would hardly be credited here. The more refined custom of soon joining the ladies or even of accompanying them to the drawing-room, is now prevalent; and this has been aided in its good effect by the more general introduction of the lighter French wines, of which the influence upon the sobriety of a people is so universally acknowledged, that it has been urged upon congress as a reason for diminishing the duties upon them. The low price of whiskey, since the

* See on the subject of silk, "Practical Instructions for the culture of Silk and the Mulberry Tree, by F. Pascalis, M. D." and "Essays on American Silk, by John D'Homergue and Peter Stephen Du Ponceau." The latter work shows satisfactorily that silk ought to be worked at present in this country only to that state when it is called raw silk, and then exported, and that this would afford more profit than to make sewing silk, as they do in Connecticut. But as the preparation even of raw silk requires some knowledge and machines which we do not yet possess, I think it will be found advisable to begin as soon as possible to raise the trees and get experience in the management of worms: we may reach even immediate benefits therefrom; for no doubt the inhabitants of Connecticut would not have persevered in making sewing silk for seventy years, (even with the whole of the cocoons, although M. D'Homergue says that this is a great waste, since the refuse cocoons only are used for that purpose) unless there was a profit in it.

fall in price of grains, is probably the great reason for the alarming increase of intemperance among the poorer classes. But where wine, not stronger than cider, as the common French wines, is generally drank, temperance is universally admitted to be prevalent. Those wines are also healthy ; and it is the opinion of enlightened and good men, that the most effectual and lasting mode of reducing the use of ardent spirits is the one recommended last year by your president, of introducing generally the cultivation of the grape. I know that this will be controverted by men very intelligent and very good too. But my little experience tells me that moderation is the more sure way of proceeding in amendments, and that we must mistrust, in this country particularly, an eagerness of zeal which has carried too far almost all the objects to which public attention has been called.

In thus recommending the culture of the grape (for family use only, either as wine or for the table,) we are encouraged by one more year of success. That plant is subject to injury by late frosts in the spring, even in its favoured abodes of the south of Europe. We cannot complain, therefore, if after the uncommonly warm month of April of this year, the grape was hurt in the succeeding month. But those which have escaped this partial injury, show that in proper situations and with due care, this plant is destined to find a congenial country among us. I have great pleasure in quoting the grape-vines of Major Brown, one of which, particularly, a mere cutting, planted three years ago. It is of a valuable kind, (Early Morillon) and has produced this year one hundred and twenty clusters, of good size, which came to perfect maturity about a fortnight ago, notwithstanding the unfavourable season.* Many parts of this county produce a kind of wild grape. It would be perhaps the surest way, as it is the easiest and quickest of obtaining good fruit, to graft upon those stocks. The grafting of the vine was long consi-

* As this exceeds any account of the kind I have seen, I deem it proper to add that I hold it from a person on whom I place the utmost reliance.

dered extremely difficult. My brother has tried the experiment upon the wild stock of this country, and it has perfectly succeeded. The best mode of grafting appears to be that described by Dufour, of the Vevay Swiss vineyards, in the "American Vine-dresser's Guide," and is thus described by Mr. Horatio Gates Spafford, (author of the New-York Gazetteer) who says, that every one in the neighbourhood of Troy practises upon this plan, and that he has found it by experience perfectly successful. "Saw off the root of the stalk into which you would insert your graft, under ground ; bore a small hole into the end of the root-stalk, and insert the graft, with one or two buds ; then, keeping the root covered with mellow earth, and the upper bud just even with the surface, and the whole process is accomplished. Some care is necessary in rubbing off the superfluous shoots, but the operation is easy, and as sure as the inserting of a graft into an apple or plum tree. If the root-stalk is of a vigorous growth, and the graft well chosen, having the wood of the two last years' growth upon it, and from a bearing vine, the graft will always bear fruit the first year, and of the quality of the graft."

The operations of the farmer would be much facilitated if he could foresee with some tolerable degree of certainty the approaching changes of the weather. Hence have arisen, as men are apt to answer their wants by fictitious means, when they cannot do it by real ones, some of those prognostics which we find disseminated in all countries and in all ages, which are still believed in, like the predictions of card tellers, or the explanations of dream interpreters, though they have disappointed a thousand times. There is an instrument, the immediate object of which does not appear at first view to promise the results which have been found to be drawn from it. The barometer measures the relative weight of the atmosphere, by means of a column of mercury or quicksilver which rises in a glass tube, deprived of air, when the atmospheric air becomes heavier ; and lower when the air is lighter. It has been remarked that the first effect is generally followed by good weather, and the latter by bad, in a greater or lesser degree, ac-

cording to the rise or fall of the mercury, and other circumstances which the habit of consulting the instrument will soon teach to distinguish. Along the sea coast, and on the ocean, this effect of the mercury is more generally indicative of the force of the wind, and hence this instrument has now become a necessary appendage to a well appointed ship; but in the interior the indications of the barometer, although they also are influenced by the winds, are more particularly in reference to rain. We have made use of this instrument at Le Raysville for some years, and have acquired the habit and the confidence of being guided by it whenever the coming state of the weather becomes a matter of interest, and we now are like most of those who have been in the same practice, at a loss when we are deprived of our counsellor. I have no doubt that a good farmer who would pay ten or twelve dollars for such an instrument, would find that he could not well have applied the same sum to a better purpose. Were six barometers ordered at once, they might be had in New-York for five or six dollars.

Another means of attaining useful knowledge, I would mention is the subscribing to some periodical publication principally devoted to agriculture. There are two which, from their location and the manner in which they are conducted, I would highly recommend. One is the New-York Farmer, published monthly in the city of New-York, at three dollars; the other the New-England Farmer, a weekly paper of Boston, at two dollars fifty cents per annum. The New-England Farmer is taken by two of our most enlightened members who have the highest opinion of its merits and usefulness. Some numbers of those papers will be distributed with a part of the premiums. In taking a paper devoted to agriculture, it might be an economical and otherwise advantageous way, to unite several in a close neighbourhood, and meet weekly on some evening to read the paper. Each would make his remarks and bring his stock of knowledge and experience. The young part of the families would be instructed. The habit of observation, of investigation, the social feeling which such meetings would foster, would, it seems to me, produce very great benefits.

The New-York Farmer is under the patronage of the horticultural society of that city, but both papers devote a large space to gardening ; and it would perhaps not be among the least beneficial results this would produce, if they should improve so useful and important a part of a good farm. It is well to raise the best provender for our cattle, and adopt new species when they are well recommended ; but I think we ought to take as good care of ourselves.

A well cultivated garden on a farm bespeaks more than any thing else, order and comfort, and has this peculiar merit that it is an outward testimony in praise of the female part of the family, whose care is necessary to its success.*

We derive most of our population from a part of the country where more regard is paid to this branch, and where new and increasing emulation is excited by their flourishing horticultural societies. We are yet too young here for such an institution ; but our society may very properly and usefully at present extend its care and encouragement over our gardens. It has been a subject of remark with the traveller, and of regret in the new comer, that so fine a country having made such astonishing progress in every thing else, should be comparatively backward as to gardens. It has been observed to you on a former occasion by one well qualified to speak on that subject, that in no country are the vegetables better than in this, nor are our fruit inferior to any, so far as we have tried them. You will conduce to your health and comfort by attending to this subject. Some vegetables of early and profitable cultivation, which you will find noticed in the papers above mentioned, are generally unknown here, and would be valuable acquisitions ; and as to fruits, the example of some of our best farmers is not sufficiently followed, and it would seem as if the generality were satisfied with such production as our forests contain, with the addition

* I take the liberty of requesting, for the benefit of our next cattle show, all those who have any fine fruit, and particularly that which is rare, to send a sample of it to our society for exhibition on that day.

sometimes of seedling apples. We are too far advanced to remain longer in this unfarmerlike state, and it is time we should render ourselves worthy of the country where it is our good fortune to be placed.

The society has heretofore taken the subject of roads into consideration, and justly so. Not only do they form an important part of the yearly labour of every farmer, but the subject is not so generally understood, if we judge from practice, as it ought to be. I cannot of course enter into a detailed examination at present; but I am glad of an opportunity, at this yet early part of our settlement, to bring the public attention to the mode of laying out roads. Following the straight line is a very good rule of our moral code, but it does not apply to the making of roads; as it is not always true in finance that two and two make four, so the straight line is not always in fact the shortest distance between two points. We see every where in this country the roads going up and down the steepest hills, when they might have been avoided with the greatest facility. One single hill in a road to be travelled will generally determine the load we can take, and the time spent in going up a steep hill of twenty rods, the expense which may result from accidents, besides other serious consequences, will often compensate for going a great distance round. A level road is of the utmost importance to the farmers who have to carry their produce to market, and when we shall become fully sensible of it, we may be put to a great expense and trouble in going through improved farms, &c. to level our roads. In parts of the United States, where science and experience are combined in establishing roads, the angle the road is to make with the horizon is determined and adhered to. The very backbone of this continent has been passed at such an angle as would hardly seem to us in this even country, to form an ascent. There is no reason why we should remain behind our age on this subject.

The thistle, for which it is supposed we are indebted to our northern neighbours, has often been attacked in this place, and to all appearance with so little success, that it requires some degree of fortitude to renew the battle. Yet it is one of

so much moment that we ought not to feel discouraged at every successive attempt which may fail. It is an undertaking which can succeed only by general co-operation. I am convinced from what I have seen and heard, that with united and proper efforts, this increasing evil may be completely overcome and with much less labour, and in less time than is generally believed. Cutting when the stem is hollow and chiefly before a rain is effectual. Throwing upon the stumps the salt you want to feed to your cattle has been known to succeed, and a due cultivation with Indian corn, wheat and clover it is asserted, will completely subdue them in all cases. But a farmer must not feel secure because he is exempt from them or even his neighbourhood. The seeds are wafted by the wind to a great distance, and one field only, one single small spot of ground, which from some cause may be given up one year to the encroaching stranger may poison a whole settlement. Some parts of the ground are now so impregnated with the seed, even at a distance from clearings, that if the smallest opening is made in the woods it will take possession. There is one way in which one single man in every road district, who would be determined not to give up till he had conquered, might do much to effect the desired object. By the statute on highways, it is enacted, that "it shall be the duty of the overseers to cause the noxious weeds on each side of the highway within their respective districts, to be cut down or destroyed twice in each year, once before the first day of July, and again before the first day of September, and the requisite labour shall be considered highway work." A neglect of such a duty can arise generally but from ignorance of the obligation or from carelessness. The first is easily removed by any inhabitant who chooses to be free from weeds; and the second might be cured by being reminded that a penalty of ten dollars is attached to a neglect of the duty. The example thus set would be followed by the farmers along the road, and by perseverance, the happy result may be expected,

The use of plaster in quickening the growth of grasses will be very useful, and you will therefore find it important to choose

the Pennsylvania clover, and the lucerne, which are cut twice, or oftener. This season has been favourable to weeds. It therefore behoves us to be prepared with all our means to meet them the next year.

I will say a few words upon a topic which has heretofore been mentioned in this place, and those only because my particular business makes the remark more than disinterested on my part: The best of our farmers are united in saying, that we cultivate, or rather attempt to cultivate, too much land. I believe the principle will not be contested by any who would be likely to be affected by it, and I insert it here only with a wish to impress it again upon your mind.

Travelling a few years ago in Pennsylvania, I saw in a grist mill a machine to break corn before shelling; in that state it was ground coarse, and fed to hogs and other animals. I heard much of the advantage of this plan, but being unfortunately prevented from devoting as much of my time and of my thoughts to the subject of farming as I wish, I might never have endeavoured to introduce this mode in our county, if the too great partiality of my associates had not chosen me for the honour of addressing you on this occasion. In the limited opportunity I have had of inquiring about it since, I find that the same process is followed in several parts, at least, of the country, and very well spoken of. It is thought by some, that it saves one quarter of the corn in fattening swine. A paper of a recent date from Columbia, (Pennsylvania) says, that it has been pretty accurately ascertained, that thirteen bushels of Indian corn ground up, corn and cobs together, afford, at least, as much nutriment in feeding cattle, as nine bushels of corn without the cobs. Here is a saving of nearly one third. This food is used by the carters in New-York for their horses. A machine to break the corn costs about fifty dollars. I have no doubt if some of our enterprising millers should establish such a machine, he would have the double reward of bringing grist to his mill, and doing good to his country.

The introduction of lucerne into this country has heretofore been recommended to you, but the difficulty of procuring the

seed, and the want of a sample have probably been impediments to its extension. I am going to procure some seed for my use, and will cheerfully get some for those who will leave their names to-day with Mr. Hungerford. This grass is strongly recommended by some of our most able agriculturists, as Mr. Lowell, president of the Essex Agricultural Society in Massachusetts, and Mr. Buel, of Albany. I have the more confidence in the opinion of its advocates, as I find that many of them, and the latter in particular, failed in the beginning of its cultivation. Its great advantages are : its durability ; it will last ten years or more in good ground ; it is earlier than clover ; is mowed three or four times in the season ; stands droughts and hard winters better ; and its root going six feet and more in the ground, draws sustenance from a part of your land which otherwise is beyond your reach. Mr. Buel, and others, say, that being cut and fed green, it will keep five or six cows per acre during the season. Less oats is necessary with it than with clover. In short, it is so highly spoken of both in Europe and in this country, that no good farmer who has soil adapted to it, which is a deep sandy loam, should be without a field of it, even if it is but one acre. You will perceive, that once well put in, it will cost nothing more for several years, and produce yearly a greater profit than any other grass. Those who wish to keep their lands in grass as long as possible, can have nothing to compare with it. I have good authority for saying so, and only wish that the limits of this address would admit of my quoting some of them.

The inhabitants of this county have had lately an occasion of displaying their taste for scientific and useful pursuits. Mr. Finch, a distinguished mineralogist, was attracted by a subscription to deliver a course of lectures at Watertown, in the intervals between which he visited several parts of this county, and on his last evening, gave a summary account of what he had seen, the substance of which will be published. Besides the objects of curiosity for the intelligent and inquiring traveller which he mentioned, and which are not immediately connected with our present purpose, it was gratifying to hear this gentle-

man who has travelled over a great part of the United States, and whose business makes him a close observer of the soils of a country, express himself in so favourable terms upon our part of the state. A very important conclusion may be drawn from his observations upon the part of our county which rests upon limestone. It is objected by some of the people residing in that part when they are advised to burn some of the stones which they find upon their farms, and spread the dust upon their land, that as the country lies upon a lime rock, the soil must contain lime. Mr. Finch has said to you, that the conclusion is by no means certain upon general principles. It is undoubtedly false as it regards a pretty large tract of land ; viz. the far greater proportion of the pine forest. As to the rest, Mr. Finch had not the means of making the nice experiments which are necessary to determine the exact quantity of lime contained in a soil ; but he tried some earth picked up on the side of the street leading to the arsenal, and found it to contain very little lime. Some clay taken near the Universalist church, and chosen as one of the grounds most likely to contain a great deal of lime, showed the indication of very little ; in the opinion of Mr. Finch, not over five per cent. The quantity which our soils contain is probably so small, that there can be no doubt of its being greatly improved by the introduction of lime. I find in Chaptal's Chemistry applied to Agriculture, that Mr. Tillet made at Paris a great number of experiments upon the best proportions, in which sand, clay, and lime could be mixed to produce the most fertile soil, these three ingredients forming generally the best soils, with the addition sometimes of vegetable matter, which is very desirable, and also of other substances, which are not generally in such proportions as to affect sensibly its bearing qualities. He found that the best mixture was twenty-five per cent. of sand, thirty-seven and a half of clay, and thirty-seven and a half of lime. This agrees in a striking manner with the analysis as made by Bergmann of one of the best soils of Sweden, containing thirty sand, forty clay, and thirty lime, and with that of an excellent alluvial soil on the borders of the Loire made by Chaptal, but which he gives in a way which cannot

be exactly compared with the foregoing without entering into too much detail. A piece of land in Touraine, which had just produced a fine crop of hemp, gave half sand and one quarter of each of the other ingredients. It may therefore be concluded that the most advantageous proportions in which sand, clay, and lime may enter into the composition of earths, are from one quarter to one half, although an excellent wheat land in Middlesex, England, was found by Davy to contain only one tenth of lime. Any farmer may find pretty nearly what proportion of lime his land contains by mixing limestone, finely powdered, in different proportions with dry sand and clay, (weighing each material,) by pouring a few drops of muriatic acid, which may be had at the druggists—on this mixture diluted in water, an effervescence will take place more or less strong in proportion to the quantity of lime ; and by comparing it with that which takes place in pouring the same acid upon his soil, he will have a tolerable idea of the quantity of lime which it contains, bearing in mind that our limestone has about four tenths lime. But where a very great deficiency exists, if it could be corrected only by mixing a due proportion of lime, the evil would be practically irremediable. To make a soil containing thirty per cent. lime to the depth of six inches, five thousand bushels per acre would be required. But it has been found, that lime obtained by burning limestones, operates upon soils in the double capacity of a stimulant and of a component part of the soil. On this account forty or fifty bushels per acre are sufficient to produce a good effect, although several hundred bushels, and in one instance one thousand, have been used to advantage in Great Britain. Mr. Finch recommends, with reason, its use in this county, and quotes as examples the great benefits derived from it in Pennsylvania and in Jersey, and one instance at Brownville. There is no doubt that in some soils the effect is astonishing. Lime may also be added to land by using plaster. This is much cheaper, but will not have so lasting an effect. Which of the two will be preferable here will be determined by experience, and trials should be made on both, so as to enable us to choose between them.

And here I would beg leave to suggest a plan which I think would do more good than can be done any other way with any thing like the same trouble. Pattern farms have been established in other places, but they are extremely difficult to be well managed any where, and would be almost impracticable here at present. I would therefore spread the pattern farm all over the county. Let every man who tries an improvement on his farm, when it shall be on the road, (which he should try to do) put up a notice written with chalk on a piece of board, stating in a few words the nature of the experiment. In the case before us, for instance, let a few narrow strips running back from the road be left without liming, on average quality and situation. Write on a piece of board or shingle posted up, "thirty bushels stone lime per acre;" the strips left without liming will speak for themselves, and you will persuade more to follow your example than the recommendations of the greatest orators could do.

The roller, which is considered in France and in England, as one of the most important implements of modern husbandry, is not yet adopted in this county; but ought certainly to be after the high encomiums which are bestowed upon it by some of the best farmers in the eastern states, who have experienced the greatest benefits from its use. Repeated experiments made at the farm of Le Raysville, prompt me to recommend it with an entire confidence. It can all be made by the hand of the farmer, and comes to him so cheap, that the benefit he may reap from its use will repay him the very first year. It is not only advantageous to grain crops, but very much also for grass. One hour's work with the roller after ploughing and harrowing, says a farmer after eight years experience, will do more in pulverising the soil, and in producing a finer tilth, than ten times the amount of labour with plough or harrow. A smooth round log, eighteen inches or two feet in diameter, but the larger the better, and five or six feet long, will answer a very good purpose for a roller. Add, if you please, a box to carry the stones out of the field, or to augment the weight at pleasure, and a scraper to prevent the earth clogging your machine.

It is a gratifying task for me to have to felicitate you upon the means we have of improving our already good stock of neat cattle. We have in this county two bulls of Devonshire and Hertfordshire ; and through the enterprise of Mr. Budd of Carthage, we now own a very fine full-blooded bull, of that most valuable breed, the Durham short horn. It was bred by the celebrated Mr. Powell of Philadelphia.

The growth of wool is not a favoured one with our farmers, but the prospects are brightening, and a better market will reward our exertions. The subject however to which I would direct your most serious attention, is the employment of that material in the family manufactures. It is said by some, that they can buy imported cloth cheaper than they can make it. I believe the report of your viewing committee will bear out the contrary opinion ; but even if there was a little difference, is there not a great advantage in answering yourself your own wants, rather than pay money or the equivalent of it ? Do you not feel a pride and a satisfaction in wearing *homespun* ? But above all, will not your good housewives enter into those feelings, and seize an opportunity of rendering useful the industry of their daughters ? The mention of this *better* as well as *fairer* portion of the human race, reminds me that our assembly is graced as usual by their presence, in a number which is a reward and an encouragement for our labours, and that their flattering attention should not be fatigued. Their usual influence will also move us to raise our eyes from earth to heaven, and to ask a continuance of those great privileges and blessings with which it has pleased the Almighty to favour us.

APPENDIX.

REPORT OF THE VIEWING COMMITTEE.

OUR Society has been organized for about twelve years, and, with the exception of one or two years, premiums on farms have been awarded by committees who have personally inspected the same. It is considered an important part of the duty of this committee to report generally the state of the agricultural interests of the county, speak favourably of such things as merit it, and point out faults where they exist.

The committee find that although our country has generally shared largely in the bounties of a kind Providence, the abundance of this year has exceeded that of any previous one. Farmers have generally found their barn room insufficient, and some grain, and an unusual quantity of hay has been stacked out. The quality of the crops, as far as they have come to maturity, is superior.

Our county is peculiar for its adaptation to the various winter and spring crops usually raised in the middle and eastern states. With proper care and attention, our winter wheat is equal in quality and quantity to that of the best Genesee wheat, and for corn, oats, potatoes, &c. is generally superior. It was a remark of one of our oldest and most valued citizens, now no more,* founded on actual inspection, that the corn of this county exceeded in weight by the bushel, that of any of the states in the Union. Owing to the peculiarity of the season, the corn crop is not so universally good as usual, still there are portions of our county where it is very stout, and equal to the most favoured years. Although the spring months proved rather unfavourable to the more delicate fruits, the committee found apples very plenty, and generally of a fair quality; it was also a matter of general remark, that the native plum never was more plenty or finer than this year. The committee found in-

* Major Gen. Brown.

stances where the improved plum had succeeded, and were shown varieties of the egg plum, magnum bonum, yellow gage, damson, &c.

They also found the grape of France to have succeeded in a number of instances, notwithstanding the unusual severity of the spring months.

As far as your committee have been able to ascertain, crops have generally been well saved, although exposed to frequent rains about harvest time. It was a matter of peculiar gratification to your committee to learn generally a decrease in the use of spirituous liquors, and that a large proportion of the labour of this season has been performed without any. The country is and has been uncommonly healthy this season, and the necessaries of life have been plenty, and the prices reasonable. The surplus produce of last year has found a market at fair prices, and the present prospects are as favourable to our portion of the country as at any other.

Some of our farmers have tried hemp the last season ; and although your committee do not feel competent to judge of its success, they do not hesitate in saying, that its growth has been uniformly large, and is said to be well coated. It is a crop which has succeeded in other counties, and the enterprise of our farmers, and the good quality of our soil, will ensure its success here. Being all of us home men, we cannot speak comparatively of our county with that of others in this state. We do not however hesitate in saying, the spirit of agricultural improvement is up ; that the inquiry for the best seeds ; the best mode of preparing lands for crops ; the most effectual mode of destroying noxious weeds ; where the best fruit can be had ; whether the improved Durham short horn, the Herefordshire, or the Devon-hire are the best stocks, are becoming very general and cannot fail of advancing rapidly and essentially our farming interest. Although it is not the province of your committee to examine stock with a view to awarding premiums, their intercourse with farmers enabled them to ascertain the fact that the above mentioned breeds of cattle were all owned in the county, and would probably be exhibited at the cattle show of this year.

We occasionally found farmers complaining of hard times, and on inquiry found they were in the habit of preferring for family use foreign goods to household manufactures because they were cheaper. This is paying a poor compliment to the industry and ingenuity of the female parts of our families, and is not in accordance with the

experience of well regulated and prosperous farmers. Relying on the industry and ingenuity of their good wives and daughters, they are furnished with apparel and bedding of their own manufacture of a quality far superior to the foreign article, which tends materially to curtail the shopbills, those sure sources of anxiety and complaint. Like the good wife described by Solomon, they will seek wool and flax, and work willingly with their own hands. They will lay their hands to the spindle and their right hands hold of the distaff; their candle goeth not out by night.

The facilities in procuring money are daily increasing in our country—we warn farmers to shun the flattering bait. It is an easy task to get into debt; to pay is a task.

But a little by way of reproof. There is still much carelessness in cultivating land that is foul. Spring crops particularly, except where the hoe is to be used, had better not be sowed at all than to be sowed where the Canada thistle, the milk and other noxious weeds hold the mastery. Such land ought to be seeded thoroughly, and a few years in meadow insures their destruction. Perhaps there is no surer indication of slovenly farming, than to see crops choked by weeds, and fences fringed with bushes and briars. We regret that strong cases of this kind exist in our county, and that they are not few.

Though there is an evident improvement in the preserving and applying manures to the various purposes of agriculture, much may still be done to profit. The experience of the past year has done much to satisfy farmers that no part of their labour conduces more to ensure a certain and abundant crop than that bestowed in getting out their manure and making a judicious application of it to crops on grass ground. Its application to fruit trees and shrubbery is also highly beneficial.

The committee beg leave to call the attention of the farmers of the county to the subject of the growing of wool. The prospects are more flattering as to market, and as to domestic uses its importance is as great as ever. There is one thing connected with this subject which your committee deem worthy of mentioning. Sheep are annoyed by a fly which causes a disease in the head which is frequently followed by death. The committee are assured, that much relief, if not an entire preventive, is effected by giving the sheep during the hot weather a wood's pasture.

There is not sufficient attention paid to the selection of fruit for orcharding. The difference in price between the natural and grafted fruit is small; the difference in the fruit is incalculable.

A brief description of the farms to which the premiums have been awarded will close this report.

The farm to which the first premium has been awarded is what is denominated in this county a stony farm; the limestone making its appearance more or less over the whole farm. The farm contains nearly two hundred acres of land; is appropriated to the growing of grain and the raising of stock, is well watered, abounds in fruit of most of the varieties cultivated in this climate, is well fenced, having rising of five hundred rods of stone wall, much of which is three feet at the bottom with a gradual taper five feet high, is subdivided into small lots kept clean from bushes and weeds, with good farm buildings and a suitable portion of good and substantial farming tools.

The farms to which the second and third premiums were awarded, lie contiguous to each other, are similar in soil and in their general appearance. These farms are appropriated to the growing of grain and the raising of stock, have good and extensive orchards, are well fenced, there being rising of 700 rods of half wall on each of them, they contain a little rising of one hundred acres of land, are kept clean, have suitable farm buildings, and have been in the possession of the present occupants rising of twenty-five years.

The fourth premium was awarded to a farm containing about ninety acres of land, the improvement being an old one, but in a bad state when it came into the immediate charge of the present owner three years since. The change in that time has been great, a brick house of suitable size, well finished, with the necessary out-houses and yards have been constructed. The orcharding on the place has been much improved, and a fine new one planted. Much new fence has been erected, and the old thoroughly repaired. A due regard to cleanliness from bushes and weeds has been paid.

Premium No. 5, was awarded to a farm exceeded by none in quality of soil, and evincing many marks of the industry and care of its owner. This farm contains about one hundred acres of land; fences principally rail, but substantial and in good order and quite clean.

In speaking of the farm to which the sixth premium is awarded, we must be indulged in a few general remarks; it being located in a section of the county that has not often come under the inspection of the Viewing Committee. This farm is in the town of Lyme,

which is, as far as your committee had an opportunity of judging, an excellent tract of land ; is famed for raising good wheat and corn, and is not behind the rest of the county for other crops. The farms are generally new, but carry the marks of the good farmer, and the crops evince good land as well as good tillage. The farm to which we have awarded the premium, is far ahead of its neighbours, and is at present a good mark for them to aim at.

In conclusion, the exertions to facilitate the means of getting to market, begun last year, are persevered in ; and the markets of the North, South, East and West, will soon be accessible by water, to most parts of this county.

[From the Watertown Register.]

JEFFERSON COUNTY FAIR.

On Tuesday last, was held at this village, the annual Fair of the Jefferson county Agricultural Society ; and it was a proud and auspicious day for our county. Although the weather was as unfavourable as it well could be, yet it was computed that more than three thousand persons visited our village from the different parts of the county, for the purpose of attending this interesting anniversary. The exhibitions of domestic manufactures and of neat stock, surpassed any thing ever before offered for premiums. We must notice in particular some beautiful specimens of carpeting, which equalled any of Venetian ; a straw bonnet, equalling the finest Leghorn ; several pieces of diaper and table-linen ; flannel, &c. The specimens from a variety of dairies were superior ; and lastly the maple sugar presented by Messrs. Clarke and White, which was as beautiful and pure as the best Havana. The exhibition of horses was one calculated to make every citizen of our county, who delights in noble steeds, proud of his location. The numbers exceeded the most sanguine expectations, and their blood and appearance would vie with those of the oldest and best counties of the state. Blucher colts were numerous and worthy of their sire. The one to whom the Society's first premium on three year old colts was awarded, was sold the same day at five hundred dollars.

The horned cattle showed some of the best blood in the United States, and furnished strong evidence of due care and attention from their respective owners. Our pens contained on that day a full blooded bull, heifer and calf of the improved Durham short horn

breed, the property of Isaac W. Bostwick, Esq. of Lowville, to whose public spirit in the promotion of agriculture much praise is due. There was also a full blooded bull of the same breed, and a number of half blood. The Devonshire breed was also numerously and well represented, and our native stock showed their best.

The ploughing match presented a lively scene of twelve teams, horses and oxen intermixed, contending manfully for the Society's premium. Here was tested the speed of the teams, the skill of the teamsters, and the goodness of the plough, that all important tool in practical agriculture.

After the ploughing match and exhibitions were through with, a procession formed and marched to the Methodist chapel, where an appropriate and highly interesting address was delivered by V. Le Ray, Esq. the reports of the committee read, and premiums awarded. The address displayed much research after such things as might be useful in practice, and be applied with the least trouble and expense. It was an additional evidence of the intense interest of its author in the prosperity of our county.

From the chapel, the society and such other citizens and spectators as were disposed, proceeded to Mr. Parson's Hotel, and partook of a sumptuous dinner, in good spirits, and cheering anticipations of the future usefulness of the society.

Considering the benefit which our county has derived from this society, and the great utility which such institutions might be to any county, we are surprised that this should stand alone in so important a measure as that of sustaining an Agricultural Society. The effect which it has had upon this county is far surpassing the calculations which any person not acquainted with the whole circumstances could imagine. The *horses*, in particular, from Jefferson county are considered the best, and usually bear the highest price in market, of any in this state. Our dairies are now superior to those of any county in the state, of the age of this; and our neat stock, of which a large amount is annually exported, will command a ready sale in any market. But in domestic manufactures lies our beauty. We are not ashamed to say to any place in the union, compete with us in these, if you dare.

The festivities of the day were closed as usual with a splendid ball, at the hotel, in the evening, which passed off with a great deal of good feeling and glee. In the hall were suspended two beautiful transparencies; one an elegant likeness of our late governor, and

patron of such institutions, De Witt Clinton, and the other of M. J. Le Ray de Chaumont, the father and president of this society.

Since the foregoing was in type, we learn that the likenesses for the transparencies had been presented to the Society, by the accomplished artist, Mr. Patrick, who had taken much pains in the execution of them, expressly for that purpose. A vote of thanks for this highly acceptable present, was tendered him by the Society.

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