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THE

RURAL MAGAZINE,

AND

LITERARY EVENING FIRE-SIDE.

VOL. I. PHILADELPHIA, *Eighth Month*, 1820. *No. 8.*

A FRIEND OF THE RURAL MAGAZINE TO ITS READERS.

There is nothing in which the honourable fame and steady prosperity of our country, and the best interests of its inhabitants, are more deeply involved, than in *the promotion of agriculture*. With one hundred and twenty millions of acres of *cleared*, or *natural, strong, unwooded* land, and a population computed at nine millions of persons, we have more soil already prepared for plantations, farms and grazing, in proportion to our numbers, than any other civilized people; and our capacities to add to our quantity of cleared or unwooded land, extend to ten times the number of acres. From the productions of these lands have our former happiness and wealth arisen, and from the commerce and fabrication of these productions, have our foreign and domestic trade, and all our home manufactures, worth above two hundred millions of dollars, sprung up. The merchants and manufacturers actually hold so real and great a competition for the natural and agricultural productions of the land, that none of these productions, capable of manufacture, were exported even in the last year, except *cotton*, in the manufacture of which we had made very great progress, in 1810; even without the double and war duties, or those existing at this time. They were supposed to be worth 15,000,000 of dollars in that year. The present crisis, when all nations are revising and improving their systems of agriculture, commerce and manufactures, appears to be a fit season for increased attention, consideration and exertion on our part; and first in the culture of the soil. It is proposed, as a suitable object for such a work as *The Rural Magazine*, to make some of those exertions in relation to *agriculture and the connected subjects*, which are often demanded by those strong tides in human life, which are dispensed to us in the course of divine Providence. Pennsylvania, and the five other states which are contiguous to her, making six in their whole number, contain about one hundred and forty millions of acres of land in the most temperate and genial *farming* climates of our country. The southern parts of that noble farming district even favours the cotton, the vine and the fig tree; and every species of production, requiring the tone of the northern part of the temperate zone for its growth or the fabrication of those productions, is adapted to the higher latitudes of that region of our country. The best culture of the eastern states is comprehended in the proper farming of that district. The effectual bearing of the productions of the south upon the profits of the farming of the middle, northern and eastern states, will always render the actual or new culture of our great southern district of sugar, rice, indigo, cotton and grape vines, deeply important us; because the cultivation of those and other productions, adapted to their climates, will prevent their attention, as principal objects, to those things which must always be produced

by our cattle, grass, apple, vegetable and grain farms. The cider and apple brandy, for example, of the county of *Morris*, in New Jersey, which far exceeds the general belief, the superfine flour of the white wheat country of this middle district, and the fabrications of the dairy of the eastern states, sustain no interference at home or abroad, from the productions of those southern labourers who are employed on sugar, rice, cotton, indigo and tobacco; or may be employed on the fruit of the grape vine, the olive tree and their fabrications, which annually yield to France one hundred and twenty millions of dollars. The culture of the southern states is, therefore, in truth, a fit subject of attention and solicitude for the Pennsylvanians, and their surrounding northern and eastern brethren; and valuable papers on that subject would always deserve a place in *The Rural Magazine*. If the African TERENCE has been quoted, beyond any other writer, for the beautiful exclamation of one of his personified characters, "*Homo* sum, et nihil humani a me alienum puto,"[1] how impossible is it for a true and faithful member of this favoured nation to forget to exclaim, "*Americanus* sum, et nihil *Americani* a me alienum puto."[2]

Some of the most important practices of agriculture belong to all our climates. *Irrigation*, beautiful, elegant, profitable *irrigation*, or the watering of grounds, by turning upon them streams that have been wont to run waste, and pour their unused vegetative powers into navigable rivers, is a great example. The venerable and judicious ARTHUR YOUNG wrote to his compatriots in England, from the districts of Piedmont and Milan, the best irrigated parts of *the valley of the Po*, that such was the perfection of that branch of agriculture and the connected branches of working and neat cattle, dairies, rice, &c. that, excellent as was their English system in his vicinity, his friends could have no conception of perfection in farming, without visiting that part of upper Italy. The orange trees are carefully irrigated in the kingdom of Portugal, as are the vines of Madeira, and the rice in those of our southern states which produce that wholesome, valuable and delightful grain.

Let us, then, in every section of our country, keep attention on the stretch *to improve our whole landed interest*, which, like our great internal seas, our heaven dispensed lakes, is the natural [283]
head, from which the sister streams of *commerce and manufactures* are, unforcedly, to flow, and run till the end of time.

FOR THE RURAL MAGAZINE.

THE DESULTORY REMARKER.

No. VII.

Travel in the younger sort is a part of education; in the elder a part of experience.

Bacon.

In pursuance of the plan proposed in the initial number of these papers, which, although a mortifying consideration to the pride of authorship, it is quite probable many of my readers have already forgotten; I shall, on the present occasion, avail myself of one of the sources of instruction and gratification there indicated—foreign travel. The friend to whom I am indebted for the following remarkable incidents, illustrative of the present state of morals in Italy, has not long since returned from a tour through England, France, Italy, Switzerland, and part of Germany; with an increased attachment for his native country and her admirable institutions.

He left Milan for Florence, passing through the towns of Lodi, Plazenza, Parma, and Bologna, where he arrived after eight days journeying. Among the passengers in the coach with him, was a young gentleman of Rome, the Cavaliere V——, who was returning home after a two years tour in *South* America and Europe. Between these two, as those who are strangers in any part of the world, particularly when travelling together, experience a community of privation and enjoyment, an intimacy was soon formed. The distance from Florence to Rome is 193 English miles. The road passes over the Appenine mountains, and by the tardy mode of travelling peculiar to the country, there being no public coaches, it requires six days. The highways in this neighbourhood are infested with banditti of the most ferocious character, and almost every day furnishes accounts of robberies and murders. On the 5th of January, 1819, they left Florence. The first three days were marked by no striking incident, but on the morning of the fourth, about dawn, their ears were accosted with a sudden discharge of fire-arms close to the carriage, which they soon found to proceed from the carbines of banditti. Previously to quitting Milan, our friend had taken the precaution to divide his gold, carrying part of it about his person, enveloped in a bandana handkerchief in the form of a belt, and the remainder in a portmanteau. He had also a number of Bank of England notes, which he carried in his pocket-book, with his passport, &c. The bandana soon attracted their attention, and its contents, 30 Napoleons, with his purse, &c. fell into their hands. His portmanteau being securely lashed to the imperial, escaped the plunderers, as well as his watch and pocket-book. It was within a league of Montifiascone where the attack was made. The robbers were interrupted in the height of their villainy, by the tramp of approaching horses, which proved to be the neighbouring peasantry commencing their daily toils; and retreated with precipitation to the impenetrable thickets of the Appenines. The travellers then proceeded on [284]
their journey to Rome, without experiencing further molestation.

On their arrival there, our countryman congratulated himself on his good fortune in having become acquainted with the Cavaliere V——, whose politeness and attentions were particularly

grateful; and as Rome was the place of his residence, every object of interest and curiosity to be found there, was perfectly familiar to him. He introduced his American acquaintance to his father, who was a man of rank, living in splendour and opulence; and to his sisters, whose society the latter felt every disposition to cultivate. Thus various circumstances appeared to combine to render pleasant a residence in this celebrated metropolis, and to aid him in his contemplations among the remaining monuments of her former magnificence and power.

One morning having a leisure hour on his hands, our townsmen was engaged in his chamber counting his money, in order to ascertain the extent of his loss, sustained by the unwelcome visiters who had paid him their respects on the road; when the Cavaliere unceremoniously entered the room, and seeing a pocket-book in his hand, immediately inquired what he had lost. The fact was, that a 20 pound note of the Bank of England was missing, and as the pocket-book in which the notes were contained, was not discovered by the banditti, in their haste to make their escape, he concluded that it had been carelessly dropped at some time or other, and would never again be heard of; which he stated at once to his pseudo friend. The latter expressed some surprise, and evinced considerable embarrassment on the occasion. His quondam fellow tourist, however, made light of the matter, and endeavoured to change the conversation by stating, that he would ask the advice of his banker the duke of Torlonia, fortunately the only house in the habit of discounting English notes; and would also write to his banker in London, to have the payment stopped at the Bank of England. To this plan the Cavaliere strenuously objected, but said, that he knew a man in Rome, who would procure him the note if it was to be found; and in consequence of this suggestion, the application to the Duke was not made. Our traveller, reflecting on the circumstances connected with this interview, his being interrogated as to his loss before any intimation had been given that such loss had been sustained, the hurried and peculiar manner in which the inquiries were made, in addition to the fact that the Cavaliere was the only person who had seen them counted, and that he was careless of locking up his pocket-book, began to suspect, although his rank and standing might forbid it, that the gentleman knew something about the note. As the numbers of the different bills had been taken, there could not readily have been a mistake. A few days subsequently it was distinctly intimated, that the person to whom application had been made, knew where the note was. An interview with the *conjurer* was zealously urged, in the hope of visiting the thief with merited punishment. To this the Cavaliere replied, that he had [285] pledged his honour that the affair should remain in profound secrecy, and that he would himself be responsible for the payment, and accordingly gave his note of hand for it payable in two days! After *many* days had elapsed without receiving the amount, the patience of our traveller was nearly exhausted, and under the influence of irritation, produced by the unprincipled conduct of this modern Roman, it was determined to disclose the whole transaction to his father. The subject was introduced with the utmost delicacy. The old gentleman, after hearing a detail of all the circumstances, coolly observed, that it was no business of his, and that his son would doubtless attend to it. He was then explicitly told, that respect for his supposed parental feelings had induced the reserve which he had witnessed; but as this reserve, it was perfectly apparent, was altogether unnecessary, the facts of the case should be made known, and the moral turpitude of his son publicly exposed.—The expression of this determination caused an immediate change of tone and manner; he was now all sensibility to the reputation of his son and that of his family, and gave a positive assurance that the money should be immediately forthcoming. Shortly after this conversation it was brought by his quondam friend, and was principally in various gold coins, which had probably been procured for him by a broker, on the lowest terms.

The family, in which our countryman resided, while at Rome, was highly agreeable; and the society of the lady, and her amiable daughters, was a source of pleasure to the gentlemen who lived in the house. On the evening of the day on which this affair was settled, he had taken his wonted seat in this interesting circle, which so delightfully reminded him of that which he had left at home, when the brother of the Cavaliere, who was invested with some office of dignity, entered in full dress. He very courteously and gracefully paid his respects to all the individuals composing the company, with the exception of the American, of whom, notwithstanding his being well acquainted with him, he took no notice whatever. He then intimated to the lady of the house, that he wished to speak with her in private. She accordingly withdrew, and very soon afterwards returned, and informed our tourist, that the gentleman desired to see him in the adjoining room. On entering, he was charged with attempting to sully the character of a family, which could trace its reputation and fame through a long line of noble ancestry; and that for this injustice, instant reparation should be made. He then drew his sword in a tempest of passion, but recollecting immediately, that his antagonist was unarmed, he sheathed it, and drew from his pocket a pair of pistols, with which he insisted they should fight without delay. By this time one of the party, alarmed by the noise occasioned by their altercation, hurried into the room, and on learning the cause which produced it, gave such explanations to the enraged Italian as were acknowledged to be perfectly satisfactory, as to the treatment his brother had received; and with a smile, which he could assume at pleasure, he took his leave. After his departure, the lady took occasion to caution [286] our traveller against venturing out during the evening, assigning as a reason for this advice, that the officer was very vindictive in his disposition, and that an Englishman, who had not long previously given him some offence, lost his life in consequence of the attack of an assassin. This admonition was not disregarded. In the course of the evening, a member of the family, who had heard nothing of the previous occurrences, on his return home, observed, that he could not conceive what mischief was in agitation, as his face had been closely examined by more than one person, in passing the lamps, who wore masks, and appeared to be actuated by curiosity, or some other motive, to an extraordinary degree. Those who were acquainted with the events of the evening, were at no loss to conjecture for whom they were on the watch. An obnoxious individual can at any time be put out of the way, in Rome, for a very small reward. To save these obliging

and tender-hearted gentry further trouble, and to consult his own safety, he early the next morning left the dominions of the church, and pursued his journey to Naples.

If individuals, and incidents of such a character, should frequently present themselves to the notice of the tourist, it would almost induce him to deny himself the delights and advantages of foreign travel, and adopt this sentiment of COWLEY,

About the spacious world let others roam,
The voyage life, is longest made at home.

FOR THE RURAL MAGAZINE.

THE VILLAGE TEACHER.

Twice in every year our otherwise quiet village is thrown into a ferment, which agitates its little community like an earthquake, and unsettles all the habits of order and industry for which we are usually remarkable. The cause of this great tumult is the militia training—that system which supposes every citizen to be a soldier, and undertakes to instruct him in the art and mystery of holding a musket and putting the right foot foremost. On the last of these occasions, I was surprised to find that my whole school had played truant; and observing an unusual ferment in the streets, found, upon inquiry, that at the last election for officer, Ezekiel Snip, the village tailor, a man with fierce red whiskers and a peculiar altitude of chin, had been elected captain. Ezekiel had dipt into Duane's Hand-Book, and was esteemed profoundly skilled in the manual exercise; so that the neighbours were all on the tiptoe of expectation to witness the parade of the day. As this took place opposite to my school-room, I seated myself quietly at the window to watch how matters proceeded. About eight o'clock, the tavern porch began to be filled with people, some bringing old rusty rifles, others their fowling pieces, and some armed with a stout oaken stick. Then sallied forth a valiant drummer, aided by a no less valiant fifer, at the head of some dozens of the town boys, to alarm the village. They marched up the street, and down the street, and beat tantarara, and whistled out of all tune,—till my head ached,—to the infinite delight of the idle urchins at their heels, and the gaping housemaids at the doors and windows, as [287] they passed. When this preparatory ceremony was gone through, forth issued captain Snip from the tavern door, in all the glory of a blue coat, epaulettes, a sword and feather. The militia-men were then ranged out in ranks, and the muster-roll called. I was particularly struck with the assemblage present. I looked in vain for the most respectable of our mechanics and neighbouring farmers.—The ranks were chiefly filled with the idle young men of the village and the tavern frequenters of the neighbourhood; in short, with men who hung loose upon society, and were eager for every adventure that would enable them to get through a day, without work, and might end in a drinking match. Captain Snip bustled about with becoming self-importance,—fixed this man six inches back, and that one as much forward, and having thus ranged them *a la militaire*, proceeded, by the aid of his Hand-Book, to induct them into the manual exercise. At the word "Shoulder fire-locks," a scene of confusion ensued. Some had their pieces on the right and some on the left shoulder, and they were ranged at all angles from a perpendicular to a horizontal line. —With infinite difficulty, and after repeated trials, the captain got them to order and proceeded to the next command. As he went on I observed that he became impatient and confused; the disorder into which his company were continually getting, surpassed his abilities to rectify, and his limited and superficial knowledge began to fail him. He quite lost his authority over his men; but by dint of storming, succeeded at last in getting some how through the business. The drum then sounded, and the gallant troop marched out to the commons, there to encamp for the day, carrying in their train all the noisy and idle boys of the town.

In the afternoon they again made their appearance, dusty, fatigued, and disorderly, and after a sham exercise in the street, were dismissed. It was a glorious day for the sellers of cakes, and beer, and brandy, and whiskey. Many a bottle that day was emptied of its fiery contents, and many a miserable wretch strengthened in the habits of vice and dissipation. Scarce a man of this valiant corps returned home sober. The tavern door was a scene of continued quarrelling and the most shocking profanity, till eleven o'clock.

Battle succeeded battle, to the infinite diversion of the by-standers, and to the edification and instruction of the lads of all sizes that were thronging to this school of morality. I know not how captain Snip felt upon descending to his ordinary employment, from such a height of military glory, but I myself have been sad and melancholy ever since, when I reflected upon the events of the day.

And what, fellow citizens, is the great good attained by these militia trainings? It is the idlest of idle dreams to suppose the recurrence, four times in the year, of such scenes as I have described, can make soldiers of our yeomanry. It may make idlers, it may make bullies, and drunkards, and gamblers of them; but what they learn of military discipline, of the subordination of a camp, is [288] not worth a farthing candle. You lose to the state the labour of a hundred thousand men, that they may be placed under the tuition of some half-learned captain, who, perhaps, has never been in a camp, and who does not, in the course of years, teach them more than they could at any time

learn as well and better in half a day's real service. The good done to the state by these militia laws is a mere shadow, and the wounds which they inflict upon the steady habits, the industry and the morality of the country, are awful and portentous. I believe I do not exceed probability in asserting, that one half of the drunkenness in the state, is induced or confirmed at these militia trainings.

But it is not only in the effects upon those who obey the mandate of the law, that this system is to be deprecated. Look at it, in what light you will, it is injurious and oppressive. A large portion of your fellow citizens are men who will not, in any cause, take the life or connive at the death of a fellow creature. They believe that the great Author of being retains in his own hand the power over life, and that it is impious in mortals to assume his prerogative.—No matter how true or false this may be, it is with them an article of religious faith, and as such is held sacred by our constitution. Whatever law interferes with this article of their belief is, to them, persecution. If man has no moral right to take the life of his fellow, government can have no moral right to oblige him to do it; and they who obey the law, in preference to their conscience, are traitors to their God. If they obey your military requisition, they become a party to a system altogether at variance with their faith. They cannot pay the fines which you impose for their refusal, for you demand them as an equivalent for what they cannot concede to you. Here then are they placed, without (according to their belief) the power of moving. If you insist upon the payment, you must despoil them of their goods. It is to be sure alleged, that the state cannot, with a due regard to its own safety, dispense with the military allegiance of its citizens. Admit this to be the case. Do you, in abstaining from the petty, alienating vexations of a militia law in time of peace, yield or forego the claim to this allegiance? You pass an edict oppressive to a class of citizens, whose motive for non-compliance is sacred in the eye of the constitution,—an edict, which your experience of the past assures you, they will not comply with, and you create, in order to enforce it, a race of harpies, who are trained under it in all the arts of oppression and plunder. And to what good end? Does one solitary dollar of these militia exactions pass into your treasury? Is it not, on the contrary, a well known fact, that after seizing upon twice or thrice the just amount of the claim, the proceeds of the sale of these goods melt away before they reach the public treasury? The ostensible object of the law is to train the yeomenry in the art of war. My word for it, its actual operation is more to enervate than to strengthen, and while it forms a dark blot on the escutcheon of our state, there is not, in its consequences, a single salutary effect to compensate [289] for the hardships it inflicts upon the followers of the great statesman, who laid the foundations of our public and private prosperity, our liberal institutions; of all, in short, which has rendered Pennsylvania the boast and the envy of nations.

FOR THE RURAL MAGAZINE.

ROUTE TO NIAGARA PALLS.

To the Editors.—During the continuance of the fervid season, some of your readers will probably beguile the tedium of mid-summer, by taking excursions in various directions, as health or curiosity may happen to invite them. The gratification to be derived from pursuing the route to Niagara Falls, and thence to Montreal and Quebec, will amply repay all its fatigues, and realise the expectations of the tourist however highly excited. The following indicates one of the most agreeable avenues of approach to that unparalleled wonder of Nature. Having felt the want of some such information myself, it was thought it might be acceptable to others, who have no better guide. These distances, though derived principally from innkeepers, stage-drivers, &c. are sufficiently accurate for the purposes of travellers generally.

Distance from Philadelphia to the Falls.

	Miles.
New York,	100
Albany,	160
	——260
Schenectady,	16
Amsterdam,	15
Tripe's Hill,	6
Cachnewaga,	5
Paletine,	18
St. Johnsville,	4
Manheim,	3
	——327
Little Falls,	7
Herkimer,	7
Utica,	15
1st day's journey from Albany,	—— 96
Vernon,	16
Lennox,	12
Chetenengo,	5

Manlius,	12	
Jamesville,	5	
Onondaga,	10	
Skaneatelis,	16	
2d day's journey from Albany,	——	76
Auburn,	7	
Canandaigua,	37	
3d day's journey from Albany,	——	44
Victor,	10	
Pittsford,	11	
Rochester,	9	
Palma,	11	
Murray,	7	
Gaines,	11	
4th day's journey from Albany,	——	59
Ridgway,	13	
Hartland,	11	
Cambray,	12	
Lewistown,	15	
Falls of Niagara,	7	
	——	58
		593

From the Falls to Quebec.

Lewistown,	7	
Fort George,	7	
York,	33	
Kingston,	170	
Prescott,	70	
La Chine,	130	
Montreal,	9	
Quebec,	170	
	——	596

From Quebec to Philadelphia.

Montreal,	170	
St. John's,	27	
Shoreham,	150	
Ticonderoga, (village)	3	
Caldwell,	35	
Albany,	61	
New York,	160	
Philadelphia,	100	
	——	706

This journey may be readily accomplished in about four weeks, without extraordinary haste, at an expense of from one to two or three hundred dollars; according to the mode of travelling adopted, and the habits of the tourist in relation to economy or extravagance. But in times like the present, even those who are wealthy, should be edifying examplars of simplicity and frugality. [290]

Oscar.

FOR THE RURAL MAGAZINE.

EXTRACTED FROM THE MANUSCRIPT COLLECTIONS OF C. E.

A remarkable instance of premonition of impending death.

Your readers may rely on the authenticity of what follows, as I assure them I copied it myself from the original letter in the well known hand writing of John Ross, Esq. deceased, who was an eminent attorney at law in this city, for many years before the American revolution, and also a member of the legislature, as a number still living can remember. The letter was addressed to his friend Dr. Cadwalader Evans, of this city, but then settled for a few years in the Island of Jamaica. The accident happened to John Kinsey, Jun. He was the son of John Kinsey, Esq., one of the most eminent lawyers of his time, also speaker of the Assembly and chief justice of the Supreme Court of Pennsylvania.

C. E.

DEAR DR. EVANS,

I am going for Newcastle, early in the morning. I just heard of a vessel going to Jamaica before my return; so in haste determine to give you one scrawl, lest you should think the neighbourhood forget you. But you may depend that will never happen: we gratefully and cordially remember you often. I would tell you all the news in a word, if possible, with all haste. To begin—our neighbourhood just as you left us, only B. Franklin lives in your house. The Col. Hellier not yet gone to sea. I think all your acquaintance continue well, save poor Johnny Kinsey, jun. on Tuesday, the 8th inst. by accident shot himself dead, coming over Gray's ferry, by Schuylkill falls, while in the boat. He had loaded his gun, and, as is supposed, let the butt drop on the bottom of the flat, the gun in a line with his body by his side; went off when half cocked. The whole load of shot struck his left cheek, and went up directly into his brain. He dropped and was dead in an instant—never groaned. Great sorrow attended his father, and all his friends, for the accident. He had strange apparitions of his death the night before, which he informed his aunt Bowene of at breakfast, the morning of the accident. I must relate to you the particulars which are as true as surprising. He, talking with his aunt at breakfast concerning his being admitted as an attorney and going into business, said, he believed he had nothing to do with business, for his time, he thought, was not long in this world. He said that last night he was strangely disturbed in his sleep with dreams and apparitions; that his cousin Charles Pemberton, who died last spring, appeared to him, wrapped in a sheet, and said to him, "Kinsey, your time approaches, you must go with me," and he disappeared. Soon after, appeared a person before him in the form of an angel, (according to the idea he had of an angel) and said to him "Kinsey, your hour is come, you must go with me," and instantly he thought a flash of lightning struck him on the cheek and he instantly died. This was followed by a severe clap of thunder and lightning that awaked him from his sleep, and all those particulars came fresh to his memory, and gave him a great uneasiness. (Note—no thunder or lightning that night.)—Upon this he endeavoured to get asleep again, and after dozing a short time, he was awaked by the noise of a person walking across the room, giving a heavy groan. He heard or saw no more, but got out of bed and went into the other room, called the Scotch boy to bring in his bed and lay by him the remainder of the night. In the morning, at breakfast, on Tuesday last, he communicated all the before related to his aunt Bowene and Hannah Kearney. He seemed much dejected upon it, was confident he was near his end; but to divert himself for that day, he determined to take his gun and go fowling with young J. [291] Derborow, young Oxley, and two or three more. They walked to Coultas' ferry and crossed Schuylkill, and up to the falls ferry. He told the company several times, as they walked, he wished no accident might befall him before he got home. On their return, crossing the ferry in the boat, the unhappy accident happened him. Thus you have the particulars of this melancholy affair, as fully as I could relate it if with you, and I chose to be particular in it, because I have met with no story in history so well attested as this concerning the premonitions from heaven of our dissolution. The flash that struck his cheek when asleep, was clearly answered by the flash of the gun and the shot thereof first striking. His aunt laboured to persuade him not to go a gunning that day, and he agreed; but afterwards meeting his company, they prevailed with him, as they had all agreed to go the night before.

Your father and all friends are well. I sincerely wish you all imaginable felicity, and with all the haste I began, I cannot help now concluding that I am your very affectionate friend and humble servant,

JOHN ROSS.

Dr. Cadwalader Evans, St. Anns, Jamaica.

Philad. Sunday Evening, }
13 Nov. 1748. }

FOR THE RURAL MAGAZINE.

FIRMITY AND HOMINY.

There are two ancient very wholesome and pleasant dishes, which are much used in the states south of Pennsylvania, to which the middle and northern states have not yet paid sufficient attention. The first called FIRMITY, is made of WHEAT. The second, called HOMINY, is made of INDIAN CORN, or MAIZE. The grains of wheat and Indian corn are prepared by beating in the same manner in a wooden mortar, with an iron pestle, filed in crosses or ridges at the bottom, like a modern stamp or seal for letters.

To make the firmity mortar, or hominy mortar, select a tree of from two feet to two feet and one half in diameter. Cut off a length (or piece as nearly as possible cylindrical) of about the height of a man's waistband from the ground. Let an iron hoop be well secured on and around each of the ends, to bind and keep the wood together. Then make a hole at each end of this cut of wood, like the cavity of a common mortar, as wide as the wood will admit, at top, and narrowing to a blunt point at the bottom. Both cavities are to be made alike, so that in fact, in the one cylindrical piece of wood, there will be two mortars; one in and at each end. These may be used indiscriminately for wheat or firmity, or for Indian corn or hominy, and will occasion the utensil

to last longer.—It will be proper not to have the bottoms of the two mortars, or mortar holes, so deep as to endanger the driving a hole from one into the other, which would destroy the use of both. When the mortar is thus well made, a moderate quantity of wheat, to make firmity, is to be put into the mortar, in the upper part, as it stands on the end, and the grain is to be moistened with a little warm water, to make the skin or bran come off easily and perfectly, by the beating. The pestle is then to be used by a man so as, by striking in among the grains of wheat, from the top to the bottom of the parcel, from time to time, and repeatedly, to skin the grains of wheat, which it will do effectually. When this is done, the grains are to be separated from the hulls or bran, by a sieve large enough to let the wheat through and keep out the bran or skin. When this has been done, the parcel is spread to dry, on a clean coarse linen or cotton cloth. The proper [292] quantity is put into a large family pot, with a sufficient quantity of water to boil it, and to be evaporated by a steady simmering heat from 8 or 9 in the evening till 9 or 10 next morning. Thus the firmity will be made into a large mass of white mixture of paste or pulp of wheat, and of whole wheat. This is to be taken out in portions, as wanted to make a mess, boiled with skim or common milk, as thick as pea-soup or rice-milk, and sweetened to the taste. A small lump of butter, of the size of a nutmeg, is often put into the tureen or soup-dish of firmity, at the moment when it is served up hot. Some use a little nutmeg and a very little salt. Firmity is used after the meat meal, which need be but small when there is firmity for dinner, for it is a very hearty and pleasant food. At supper there is no occasion for meat.

Hominy is prepared in like manner, except that it is served up without milk, and that it is diluted moderately with hot water. A little butter and salt may be added; and on following days hominy is often fried in a large cake to the size of the pan.—Hominy, in every form and state, is very good with the gravy of roasted beef, mutton, lamb, and poultry, steaks, chops, and cutlets.

It is believed, that wheat and Indian corn are much more wholesome in firmity and hominy, than in bread or *pone*. No yeast is required.—Great quantities of grain might be used in this way. Every thing that employs our grain, which is becoming redundant, is an object worthy of consideration and attention. A great number of the best living and most expensive families in Philadelphia, from Maryland, Delaware, and Virginia, use hominy and firmity with the greatest relish; and if suitable mortars were sent thither for sale, the use of this food would increase.

FOR THE RURAL MAGAZINE.

Weeds, and larger growths, which interfere with cultivation or impoverish the ground, should be cut down or pulled up, *before the seed ripens*, in August, which prevents their growing in a following year. Weeds are the successful rivals of grain, garden vegetables, and grass.

Now is the BUILDING season. All our country houses and places for work, should be built on the south and west sides of swamps, marshes, ponds, and other fresh waters, *on account of health*; and not on the north or east sides of any such wet or watery places. The summer winds blow from the south and west, and carry the unwholesome vapours, exhaled from those fresh waters, from places on their south and west sides, to places on the north and east sides, preserving the people's health.

WHITE COVERS of linen, cotton, or even paper, to the hats of people working in the fields, fishing, fowling, travelling, &c. protect them from morbid or sickening strokes of the sun. This is an old practice among the judicious Swiss.

Now, when all the waters are becoming low, we should observe the places for tapping swamps, marshes, and ponds. By cutting a drain to draw off the water in its low state, in August, we begin to reclaim our lands from the marsh and swamp.—The ground becomes firmer to haul off the wood and timber in the cutting season. Wet grounds should be drained, before they are cleared of their wood. For, if they are freed from trees, *in their wet state*, the sun produces sickening and often fatal evaporations. This is true in France, Germany, Holland, and the marshy parts of England, though several degrees further north than the United States.

Dry Rot.—This destructive enemy of building, which generally commences its ravages in the cellars, may be prevented or checked, by whitewashing them yearly, mixing copperas with it to give it a yellow hue.

Communicated for the Rural Magazine. [293]

ABSTRACTS

From the IVth volume of the Memoirs of the Philadelphia Agricultural Society; Richard Peters, President; Wm. Tilghman, James Mease, George Logan and Robert Coleman, Vice Presidents; Roberts Vaux, Secretary.

1. The SESAMUM ORIENTALE or BE-NE, written BENE, for making oil of the seed, from Bengal, Africa, Georgia, and the Mississippi. See Archives of Useful Knowledge, by Dr. Mease; Encyclopædia

Britanica; Accounts of East India Agriculture, &c. It is planted in the end of April and gathered in the end of September, in 32° N. lat.; raised also in 34° 50' N. lat. The oil is fine for salad, and all the other uses of *olive* oil, and may be extracted, as is the flax-seed oil, or by boiling water, to the top of which it will rise, and may be skimmed, and bottled or put into casks. It is very common on the west coast of Africa, and grows to most advantage on poor, sandy hills. It is said never to become rancid, but to improve with age. [Letter of Thomas M. Forman, Esq. Rose Hill, near Savington, Cecil, Md.] In the same letter is an account of Napoleon or Crawford RYE. It is described to grow very tall, having a solid stalk, probably capable of resisting the fly, like Jethro Tull's solid-stalked wheat. This grain is said to improve in the Cecil county soil and climate.

2. Plan of FENCES of living trees for posts, such as the Sugar Maple, and *wire* for rails; by White & Hazard, Whitestown, Philadelphia county, lowest falls of Schuylkill. Common fence for 100 acres, for 50 years, costs $3,080. Do. of wire fence for 50 years, costs $1,751. Add profit on trees, such as American black Walnut, curled or sugar Maple, Mulberry, Apple, (244 trees producing annually, at one dollar, $244) Buttonwoods, &c. which the projectors make to produce $14,098, in fifty years. Interest on annual produce sufficient to keep such wire and live-tree fence in repair, from the time of completion for ever. Other orchard lands can be spared. These fences are good against the worst cows;—they are easy to repair. Inquire at R. Watkin's tavern, at the falls of Schuylkill.

3. Accounts of LIME and KILNS, and cooking STOVES, in Spain; by Anthony Morris, Esq. formerly of Philadelphia, now of Bucks county, Pennsylvania, A. D. 1816.—In burning lime, the Spanish peasants use only the small Shrub or brush wood, not larger than a man's little finger to the size of a pipe stem. The kiln is like ours in Whitemarsh, &c. except that the top of the kiln is very little above the surface of the ground, and is covered with clay to confine the heat. The arch within is of such height as to give the full benefit of all the flame of those dry, light materials. The Spanish lime, like our best Pennsylvania lime, is very good. The Spanish practice is recommended, where lime stone is plenty, wood scarce, and brush, trash and weeds so abundant as to impede or injure culture. In the same letter is a cheap method, as to fuel, for heating irons; and an economical kitchen, as to fire, for cooking.

4. A letter from Mr. Jefferson, concerning the success of the GYPSUM, or Plaster of Paris, in Albemarle, Virginia, 200 miles from the sea-coast; also concerning improved hill ploughing, by his ingenious son-in-law, Col. Thomas M. Randolph.[3]

5. An American Plough, approved in England; as is our Cradling Scythe.

6. Also, further notice of the Mangel Wurtzel, for the culture of which see the Philadelphia Society's Memoirs, vol. III. Seed of a new kind, called the orange-coloured Mangel Wurtzel, has been sent to President Peters by Robert Barclay, Esq. grandson to the old Apologist of Uri. The [294]
progress in the culture of this root, in Great Britain, is great. Mr. Peters thinks the mottled kind best, and recommends the greatest care as to seed. It appears in other parts of this volume that 60 to 90 tons of Mangel Wurtzel, or Scarcity Root, or the improved Beet, have been produced by an acre.

5. In pages 107, 108, 109 and 110, are some interesting notices of the Mangel Wurtzel, or Scarcity or Beet root, by Mr. Isaac C. Jones, of Philadelphia. It appears that this gentleman was led into some experiments, after an entire city occupation of 20 years, by reading some interesting accounts of such experiments in the European books. In April, 1816, a piece of ground, not quite one fifth of an acre, was planted with the seeds, in parallel rows, of two feet three or four inches one way, by one foot the other. On gathering the crop in November, 1816, it was found that it weighed 8180 pounds, and that the weight of the leaves, pulled off from those roots, at different times through the season, was 5,595 pounds. They would have been more, but as the season of 1816 was uncommonly dry, the pulling was omitted for some weeks. This plant is very valuable for farm stock, and *most so for milch cows*. The leaves are excellent through the summer, and the cut or chopped root through the winter, when dry food is used. The Mangel Wurtzel, or Scarcity root or improved Beet, is excellent for the table, and is preferred by Mr. Jones' family to the red or garden beets, which are abundant and very fine in the Philadelphia market. The same gentleman raised in 1816, on 23 square poles ($^{23}/_{160}$ths of an acre,) 110 bushels of the long or orange Carrot root, being at the rate of nearly 800 bushels to the acre. A bushel of those Carrots (cut with an approved instrument in the form of an S) weighed 47 lbs., and a bushel of the Mangel Wurtzel, cut in like manner, weighed 55 lbs. The Carrots produced 800 bushels, and the Mangel Wurtzel, at this rate, 900 bushels to the acre, each *in the uncut state*. As he planted the Mangel Wurtzel, Mr. Jones found it easy to dress with the plough and one horse. The Carrots, when up, require the hoe and the hand altogether. It appears, that the seeds of this plant, about which the utmost care is necessary, may be had of John S. Skinner, Esq. Baltimore, and Mr. M'Mahon, Philadelphia, and of the seedsmen in New York, Hartford, Boston, &c. The Mangel Wurtzel fell into some disrepute in England, about the year 1810, but the marchioness of Salisbury revived it. It was introduced into Ireland, in 1787, by seed from Dr. Letsom, of London, but the good qualities not being known, nor the culture, it fell into disuse in Ireland also. But a machine for the planting of it was invented by Mr. Edward Linsey, and now it is extensively cultivated there and much approved. The leaves produce two or more crops in the north of Ireland in summer and autumn, and those leaves and the roots in winter are deemed excellent for milch and beef cattle, in that great butter country. Irish sowing time is April and May. Preparation the same as for turnips and potatoes: two drills to be opened two feet apart; sufficient dung to be used, according to the state and quality of the ground. Then cover the dung with the double mould board plough, at once, or the single plough at twice, by ridging them up as high as can be well done, with a man shovelling between the drills, right and left, smoothing the

surface of the dung, which will leave the ridge about a space of ten or twelve inches broad. This complete method of fallowing will repay the trouble of shovelling, by raising a full proportion of earth under the roots. When the ground is thus completely prepared, two boys or girls can sow from two to three acres per day. After sowing, it should be well rolled, which completes the process. [295]

The crop is afterwards to be treated in the same manner as turnips or potatoes, by putting to and taking off mould, &c. After the roots have been raised, the ground is in fine order for wheat or any other crop.

Example of Cultivation.—Wolf M'Neil, Esq. Ireland, sowed one acre; from the leaves, fed 40 pigs through the seasons of last summer and fall; then gathered 84 tons of roots.—On these fed nine cows and five calves during winter, and had, on 22d April, 1815, eight tons remaining, besides 100 roots, which he transplanted for securing good seed, *an all-important object* in this culture.

(To be continued.)

[We recommend to our readers the purchase and study of "*The Code of Agriculture*," written by Sir John Sinclair, the first president of the *public* British Board of Agriculture. London edition, about 612 pages in one octavo volume; also, American Hartford edition, Connecticut. It is probably the first farmer's manual, or *handbook*, extant in our language, and was concocted by the labours of 26 years, and with the aid of 1000 persons.]

Valuable Breed of Cattle.

The attention of farmers being again called to the bull imported by Stephen Williams, Esq. of Northborough, we have thought it might gratify them to learn the high estimation in which cattle of the same breed are held in England.—About two years since, the stock of a celebrated agriculturist of that country, consisting of cattle of this breed, was sold at public auction: One two year old cow, sold for $1,544; one four year old cow, for $1,400; one five year old cow, for $1,726; a one year old bull calf, for $1,426; one four year old bull, for $2,898. And it appears by the catalogue, with the prices affixed, that 34 cows sold for $19,324; 17 heifers for $6,006; 6 bulls for $6,267; and 4 bull calves for $3,327—making for 61 head of cattle, the enormous sum of $34,924.

[*Mass. Spy.*

The Vineyards.—The present crop of grapes promises a more abundant yield than that of the last season. There are about 24 acres under culture, which, at the last vintage yielded upwards of 5000 gallons of wine, besides a vast quantity of grapes used for other purposes. The situation is delightful, running parallel with the river; it is the admiration of strangers, and a grateful retreat to those who live in its vicinity. The intelligent traveller, while he rests from the fatigues of his journey, finds a source of true gratification mingled with delight, in contemplating the beauties of nature and art, which are here so happily blended—the abode of rural felicity. *Vevay, (Indiana) June 22.*

A DISCOURSE, READ BEFORE THE

Essex Agricultural Society,

In Massachusetts, February 21, 1820,

Suggesting some Improvements in the Agriculture of the County.

BY TIMOTHY PICKERING,

President of the Society.

(Concluded from page 272.)

II. *On Root Crops.*

Premiums having been proposed to encourage the raising of Carrots, Rutga Baga and Mangel Wurtzel; and as these articles, cultivated extensively, are of vast importance to farmers; I can perhaps in no way better promote the views of the Society, in their vote before mentioned, than by describing the methods of cultivating those roots, which elsewhere have been practised with great success, but to which, and indeed to the roots themselves (Carrots excepted) most of our husbandmen are strangers.

The introduction of Clover, and subsequently carrying the culture of the Common Turnip extensively into the field, marked distinguished eras in the improvements of English Husbandry. At a later period, Carrots were cultivated by some farmers: and within a few years past, the Mangel Wurtzel and the Rutga Baga have become objects of general cultivation. And now these

five articles constitute essential branches of the highly improved Husbandry of Great Britain.

Common Turnips. These for a long time were raised (and perhaps this practice is still very general) by sowing the seeds broad-cast, and weeding and thinning them with hoes, till the plants [296] stood from a foot to fifteen inches apart. But the most correct practice appears to be that of drilling the seeds in rows, thinning them at the distance of ten or twelve inches in the rows, and hoeing and keeping them clear from weeds. And this weak, watery root has been the principal food of immense flocks of store sheep, during the winter; and when plentifully given, only with the addition of straw, has served to fatten cattle and sheep for the market.

Carrots, Even these plants, so long after they vegetate extremely small, were also raised from seed sown broad-cast. But this awkward practice, I believe, has generally given way to the row-culture, whether the seeds were sown by hand, or by the instrument called a drill. In very rich land, great crops have been raised where the rows were only from twelve to fifteen inches apart. The great crop of 752 bushels, weighing eighteen tons and three quarters raised on one acre, in Salem, by Erastus Ware, in 1817, was in rows about sixteen inches apart. The seed was sown the 14th of May. But I am inclined to think a preferable mode would be, to sow the seeds in double rows about ten inches apart, with intervals of three feet between the rows, so as to admit a small plough, as well as the hoe, in their cultivation. In this case, a deep furrow being opened by the plough, the manure should be regularly thrown into it, and covered by four back furrows, so forming a ridge over the manure; and this ridge being laid level with a light harrow, or with rakes, or if the soil be in fine tilth, by a light roller, will then be ready to receive the seed. As soon as the Carrots are plainly to be seen, they should be hoed and weeded; or the weeds will soon outstrip the Carrots (which are of very slow growth at first) and render their cleansing vastly more troublesome and laborious.—They should also be thinned, to stand single, and only from three to five inches apart in the rows; or the roots will be small, and cost much more time in handling and topping (cutting or wringing off the tops) at the time of harvesting them. The entire crop, too, will doubtless be smaller than when the plants are thinned as here recommended.

The Mangel Wurtzel. This plant yields a much more abundant crop than the Carrot; and at the same time contains, in the same quantity or weight of roots, a great deal more nourishment; whence it is natural to suppose that it requires a richer soil than Carrots. I have not made sufficient trials to enable me to express a decided opinion on the best mode of cultivating the Mangel Wurtzel; and will therefore lay before you the successful practice, on strong land, in the county of Essex, in England, as it is stated, from a recent English publication, by the Philadelphia Society of Agriculture.[4]

The Mangel Wurtzel is sometimes called the Great, or Improved Beet, and Root of Scarcity; but now, more generally, Mangel Wurtzel, its German name. The following is the account of its culture at Bedford, in Essex.

"It may be proper, in the first place, to state what is meant by *strong land*. The surface soil is loamy, and from four to twelve inches deep, upon a bed of strong clay mixed with gravel. It is too heavy, and generally too wet, in the winter, even for sheep to eat a crop of turnips on the ground; and although good turnips are raised upon it, it is always necessary to draw them for the sheep, stall-fed cattle, or cattle in the yards."

"In the middle, or latter end of the month of April, the furrows are set out with the plough, two feet apart, and double ploughed; that is, the plough returns on the [same] furrow to the point whence it set out, forming a ridge between each two furrows."

"Double ploughing with a common plough is preferable to single ploughing with a double mould board plough, because it affords a greater depth of loose earth than the double mould board plough would produce."

"In these furrows, the manure, which should be in a rotten state, is deposited, after the rate of six cubic yards to an acre."[5]

"The ridges are then split by the plough, going and returning the same way as before [297] mentioned; leaving the manure immediately under the middle of the new ridges. A light roller is then passed along the ridges,[6] in the middle of which the seed is dibbled, so that the plants may receive all the benefit which can be derived from the manure."[7]

"The seed is deposited about an inch deep, whilst the moisture is fresh in the earth,[8] and covered by drawing a garden rake along the rows. After this, the light roller is again passed along the ridges, [to press the earth upon the seeds] and the work is finished."

"When the plants are about the size of a radish, they are hoed with a turnip hoe, leaving the plants in the row about twelve inches apart. If any of the seeds fail, and there happen not to be an even crop, the roots where they are too thick are drawn out before the hoeing takes place, and transplanted to fill up the vacant places, and ensure a full crop; which is always certain, inasmuch as 99 plants out of 100 thrive and do well. In transplanting, care is necessary to prevent the point of the root from turning upwards."

"The weeds, while the plants are young, are kept hoed; but after the head of the plant has once spread, no weed can live under its shade; and the expense of hoeing afterwards is trifling indeed."

"The whole of the crop is taken up in the month of November,[9] in dry weather. The tops are cut off near the *crown* of the plants, and the plants, when perfectly dry, are piled up in a shed, [298] and covered with straw sufficiently thick to preserve them from the frost. They kept last year till the latter end of March, and they would have kept much longer."

"Where a field selected for a crop of Beet [the Mangel Wurtzel] happens to be in a foul state, the seed had better be sown in a garden, and the whole field planted with the young Beet, when of the size of a radish. This will give time for cleaning the ground, and fitting it for a crop; for although the Beets are destroyers of weeds, it is not meant to recommend sowing them on foul ground, or in any way to encourage a slovenly system of farming."

"The method of cultivating the Beet root, here recommended, is the same as that used in the cultivation of turnips, in Northumberland, and other parts of the North of England with this exception, that the rows there are 27 inches apart.—There may be reasons in the North for still preserving that space; but in Essex the effect of it, in the cultivation of the Beet root, would be, that instead of 48 tons per acre, 43 tons only would be obtained. Experience has proved, that the roots do not get to a larger size in rows three feet apart, than they do in rows two feet apart. It may therefore fairly be presumed, that they would not be larger, in rows twenty-seven inches apart; and if not larger, the weight of the crop, per acre, must be less, because the plants decrease in number as the rows increase in space."

To the preceding account of cultivating the Mangel Wurtzel, I will subjoin a few

REMARKS.

In this mode it is intended that every two feet of ground should bear one plant: and as an acre contains 43,560 square feet, there will be half of that number of plants on an acre, and the roots must weigh nearly five pounds each, on an average, to yield forty-eight tons. The land must indeed be strong to produce so heavy a crop. If our lands, enriched and prepared in the best manner conveniently in our power, can be made to yield half as much, we shall have reason to be satisfied: especially as the Mangel Wurtzel, quantity for quantity, contains more than twice as much nutritive matter as the Ruta Baga, and even 50 per cent. more than Carrots; according to the experiments (by analysis) of a celebrated English Chymist, Sir Humphrey Davy, which he stated to the British Board of Agriculture. These experiments were made with the red and white Beets; but it is presumed that the Mangel Wurtzel produces as much nutriment as any other Beet.

Instead of 6 it may be advisable to apply at least 12 cubit yards (that is 6 such cart loads as were before-mentioned) of manure to an acre; and to distribute the same in deep furrows 4 feet apart. This would give four square feet of ground to each plant, the plants being at a foot distance one from another in the rows, four feet apart, would admit the use of the common horse plough in their cultivation.

Carrots and the Mangel Wurtzel possess one eminent advantage; that they are not, to my knowledge, annoyed by insects at any period of their growth. Whereas the Ruta Baga and other turnips, while in the seed leaf, are injured (in England whole fields are often destroyed) by a small black fly: and the Ruta Baga (like cabbages) when far advanced in growth, is sometimes infested, and in dry seasons half ruined, by plant lice; as was my small crop in 1818.

The Mangel Wurtzel also possesses one peculiar advantage above all other root crops, that as soon as the tops or leaves, are full grown, they may be stripped off (leaving only the small heart-leaves uninjured) and given to cattle and swine.—This stripping may be repeated once or twice; and it is said that the roots thrive better for the stripping. If not stripped off many of the under leaves perish. The leaves are pronounced excellent for increasing the richness and quantity of milk in cows; and so are calculated to supply the deficiency of herbage in the common pastures, which generally fail, more or less, by the beginning of August. An acre twice stripped will yield several tons of leaves.

The Ruta Baga. This root may be cultivated in the manner just described for the Mangel Wurtzel; the ground being prepared in the same manner. In England, they appear to be most commonly grown in rows 27 inches apart, with the plants at a foot distance in the rows. But William Cobbett, who in a small book, published in New York, has minutely described his own practice, both in England and America, asserts, that the largest crops are attainable by growing the Ruta Baga in rows four feet apart, with the plants about 10 inches or a foot distant from each other in the rows: and in this mode of culture, he has raised, in England, 30 tons to the acre.

For this mode of culture, the manure, being deposited in furrows 4 feet apart, is covered by 4 back furrows, 2 on one side and 2 on the other, of each line of manure; by which little ridges are formed: and if the ploughing be deep (as it ought to be) there will be a deep gutter between every [299] two ridges.—The tops of the ridges being made fine with a light harrow, or with rakes, the seeds are sown with a drilling machine; or by hand, which Mr. Cobbett says he prefers to a drill. Two men sowed for him 7 acres in 3 days, using about 4 pounds of seed, in this manner; a man went along by the side of each ridge, and put down 2 or 3 seeds in places at about 10 inches from each other, just drawing a little earth over, and *pressing it on the seed*, in order to make it vegetate quickly, before the earth became too dry. But, he adds, the 7 acres might have been sown by one man in a day, by just scattering the seeds along on the top of the ridge, where they might have been buried with a rake, and pressed down with a spade or shovel, or other flat instrument. But he used a light roller, to take two ridges at once, the horse walking in the gutter between.

The time of sowing the seeds must vary with the climate. On Long Island, (state of New York) Mr. Cobbett's trials of one year led him to prefer the 26th of June; but in our own county, I would not pass the middle of that month. Indeed I think it expedient (in order to ascertain the fittest time) to commence sowing the seed as soon as the ground can be prepared after the planting of Indian corn, and to continue to sow, in small plots, weekly, until the middle of June.

As soon as the plants are fairly up, hoes and the fingers are to be used, taking out all the plants but 1 in each 10 or 12 inches. As soon as weeds appear, hoeing is to commence; hoeing the tops of the ridges to the width of about 6 inches, showing the plants distinct and clean. Then the plough is introduced, taking a furrow from the side of one ridge, going up the field, a furrow from the other ridge coming down, then another furrow from the same side of the first ridge going up, and another furrow from the same side of the other ridge coming down. In taking away the last two furrows, you go within three inches of the turnip plants. Thus a ridge is formed over the original gutter. The next process is, to turn these furrows back again to the turnips. This hoeing and ploughing is to be repeated, when the appearance of the weeds requires it; and afterwards, the few weeds which may rise are to be hoed or pulled up. In this way, Mr. Cobbett thinks, a thousand bushels of Ruta Baga may be raised on an acre that will yield 50 bushels of Indian corn.

In describing the culture of the Mangel Wurtzel, transplanting was mentioned, to fill vacant places. The same may be practised with the Ruta Baga. But unless those vacant spots be dug afresh, the transplanted roots will be much inferiour to their transplanted neighbours; as I found in my last year's experiment. And Mr. Cobbett mentions the like difference in his practice.—At the same time he strongly recommends the raising of the Ruta Baga, by *transplanting*, for *entire crops*, as for preferable to the sowing of the seeds, and letting the plants grow where their seeds first vegetated. But then he considers it indispensable to perform this transplanting *on ground fresh ploughed*. And by sowing the seeds in beds, to raise plants, as we do for cabbages, a month's more time is allowed to prepare the ground for their reception. In the work of transplanting, the plain dibble before described is a necessary instrument. The hole made by it must be fully as deep as the length of the root; and this being introduced (taking care in putting it into the hole not to bend its point) the dibble is thrust down by its side, and by a dexterous twist, or circular motion of the hand, the earth is pressed close against the root, in its whole length. The largest crop of Ruta Baga he ever raised in England, Mr. Cobbett says, was by transplanting, on 17 acres, which produced 33 tons to the acre; the rows (on ridges) 4 feet asunder, and the plants a foot asunder in the rows.

In this mode of raising the Ruta Baga, by transplanting the entire crop, so much time is gained for preparing the ground, that two crops of weeds may be destroyed, by that number of ploughings; the first in the beginning of June, and the second immediately before transplanting. But Mr. Cobbett recommends a previous *deep* fall-ploughing, and another *deep* ploughing in April, of the ground intended for the Ruta Baga. The like two deep ploughings will be equally proper and beneficial for the Mangel Wurtzel and Carrots.

Among the advantages of the transplanting method, mentioned by Mr. Cobbett, one is, that it "saves almost the whole of the *after culture*. There is no *hoeing*, no *thinning* of the plants; and not more than one ploughing between the ridges."

Harvesting of Roots. The Mangel Wurtzel, growing chiefly above the surface, and thus exposed to frost, should be taken up the latter end of October or beginning of November, according to the nature of the season. The harvesting of Carrots may follow that of the Mangel Wurtzel; and the Ruta Baga succeed the Carrots. In the first experimental culture of the roots, in which but small quantities are raised, they can be preserved in dry cellars not liable to freezing. Where large [300] quantities are raised, they may be deposited in heaps, sufficiently covered, in a dry field. The common method of heaping and covering roots in the field, and which Mr. Cobbett practised with the Ruta Baga, is perhaps, as good as any. Holes of a round or square form are dug about a foot deep, and about fifty bushels are put into each, piling up the roots above the level of the surface of the land, sloping to the top: then covering them with straw, throw earth over the whole to a depth sufficient to guard them from frost. Smooth the surface of this earth by beating it close with the back of a spade, or other instrument, the better to cast off rain. On Long Island and in Pennsylvania, a covering of earth, a foot or 15 inches deep has been found sufficient. A greater depth will probably be necessary here. In throwing up this cover, a trench will be formed on all sides of the heap, to receive the water running off it. It may be well to sink the bottom of the trench lower than the bottom of the hole in which the roots are deposited. Where large quantities are to be thus preserved, several loads may be put into one hole: and then oblong heaps will be best as requiring less labour in covering them. A quantity of roots, for feeding cattle till the middle of December, may be kept in a barn or stable covered with straw or any dry litter. I would begin feeding with Mangel Wurtzel—follow next with Carrots—and conclude with Ruta Baga; for the latter root will keep sound until the commencement of the summer succeeding their growth.

All the roots, especially the Mangel Wurtzel and Carrots, should be fully dried before they are housed, or covered in the field, to guard them against rotting.

Roots for raising Seed. Of the Mangel Wurtzel I would select large and fair roots of a red colour, whose bodies have grown most above ground, and with a moderate, if not the smallest, quantity of leaves; for although *these* are valuable for stripping, the *roots* are much more valuable; and I am inclined to think those with small tops are least liable to rot.

Of Carrots, large and fair roots of the deepest yellow colour, and with the smallest tops in proportion to the size of the roots, are to be preferred.

With regard to the Ruta Baga, Mr. Cobbett says, it is apt to *degenerate*, if the seed be not saved with care. "We in England (said he) examine well to find out those that run least into *neck* and *green*. We reject all such as approach at all towards a *whitish* colour, or which are even of a *greenish* colour *towards the neck*, which *there* ought to be a little of a *reddish cast*."

Varieties of plants of the *same kind* (the different sorts of cabbages, for instance, or of Indian corn) if growing near together and bearing seed, will impart to one another their respective

peculiarities, and injuriously, whenever it is desired to preserve their distinct qualities unmixed, and to prevent an inferiour engendering with one of a superiour quality; the impregnating dust of the flowers of plants falling on the flowers of other plants of the same kind, producing effects similar to the crossing of animals of the same kind but of different breeds. In a word, the *sexual* system exists in plants as well as among animals; only in plants the male and female are generally united in the same plant; as in Indian corn, the male impregnating dust (the farina) is in the tassel or flower, at the top: the ear is the female, and from every cell of the future grain proceeds a thread, which together constitute what is called the silk, on which the farina falling causes the cells to fill, and become, when ripe, kernels of corn. In most fruits, as the apple and pear, the male and female are in the same flower. But in hemp, some of the plants are exclusively male, and others exclusively female.

The Ruta Baga, therefore, when set out for bearing seed, should be placed at a distance from every other seed plant of the Turnip or Cabbage kind. So likewise the Mangel Wurtzel intended to bear seed, should not be set near any other seed beet plants. It may not be amiss to add, that for the same reasons, pumpkins, squashes, melons, cucumbers, in all their varieties, in order to preserve them in purity, should be planted at some distance from each other.

Pumpkins, as food for domestic animals, seem closely connected with the roots before-mentioned. Every farmer knows their value for milk cows, for fattening cattle, and for swine. Their consumption conveniently precedes that of the Mangel Wurtzel.

With ample supplies of the Vegetables whose culture I have mentioned and described, our present Stocks may be better fed, their numbers enlarged, our coarse fodder be more advantageously consumed, our manure increased, and pork and beef and the products of the dairy, probably doubled. The latter, in particular, are miserably deficient, from the want of juicy food for cows, in continuance of the supply yielded by our common pastures just at midsummer. Pumpkins and the roots, indeed, will not be ready to keep up that supply; but oats and barley, [301] and above all Indian corn, may be sown and planted, to be cut green, and carry along our cows to the last of September, when pumpkins will begin to ripen. The consumption of these green crops and roots, by producing vast additions to our manure, will enable us to enrich our fields, and to make annual additions to the products of our farms.

The immense importance of providing for cows a full supply of food, and of food which they relish, to the extent of their appetites, has been demonstrated by many examples of very large products of milk, butter and cheese, from cows so supplied. The following statement from a recent English publication, is a further illustration of the fact:—"A farmer, some years since, kept *eighteen* cows upon a *Common*, and was often obliged to buy butter for his family. The Common was *enclosed*, (which deprived the farmer of his pasture,) and the same person supplied his family amply with milk and butter, from *four* cows *well kept.*"

III. On Indian Corn and Winter Grain.

The ancient, and to this day the general practice, in cultivating Indian corn, has been to plant it in squares, and in the course of its growth to draw up earth about the stems of the plants, forming *hills*; under the idea of supporting them against strong winds; but the necessity or utility of this practice has long been doubted. I have sometimes cultivated Indian corn without raising any hills about the plants; and, from the result, am satisfied that hills are not necessary. If, indeed, winter wheat, or rye, is to be sown among the corn, at its last dressing, I think the hilling must be injurious; for the richer mould being drawn up into hills, the intervals are robbed of what is requisite to produce an even crop.

I am aware that some intelligent farmers consider it bad husbandry to sow winter grain among Indian corn—to *double-crop* the ground. But if this be *rich*, and in *fine tilth* by deep ploughing before the corn crop is put in, and good and clean tillage accompanying its growth, I can perceive no solid objection to the practice. With us, the early sowing of winter grain is of the first importance, to insure a full crop, early ripe, and most secure from mildew. The husbandry of Mr. Ducket, already described, justifies the practice. I know it is already common amongst us; but without the *deep tillage* which enabled him to put in seven crops with only four ploughings. With such complete tillage, of a soil so enriched as to yield forty or fifty bushels of Indian corn to the acre, grown on a level, without hills or ridges; and if, in harvesting the corn, it be cut close to the ground; I see no reason why grass seeds may not properly be sown on the winter grain, in the spring. In this way, may be obtained a crop of Indian corn the first year—a crop of wheat or rye the second year—and hay the third and fourth years; and all from one deep ploughing, and a handsome culture of the Indian corn.

By the early sowing of winter grain among Indian corn, it quickly vegetates, and sends forth numerous branches; and soon covering the ground, prevents or checks the growth of weeds. Probably, too, the plants, acquiring so much strength by early sowing (for the roots must multiply and extend in proportion to the growth above ground) are less liable to be winter-killed.

IV. On Live Stock.

I have now to present to your notice the other of the three celebrated English Farmers, described by Arthur Young—Mr. Bakewell—the most distinguished improver of live stock, on principles of his own, in Great Britain. "The principles he began upon (says Mr. Young) were *fine forms*, *small bones*, *and a true disposition to make readily fat*, which is indeed inseparable from small bones, or rather fine bones, and fine forms, or true symmetry of the parts." Before

Bakewell's day, the rules which governed Breeders of Live Stock, Mr. Young pronounces a tissue "of absurdities."

He began his improvements of sheep, by selecting from the best in his neighbourhood. And so little had any correct principle of improvement been known, or regarded, that a guinea or half a guinea extraordinary would give Mr. Bakewell the choice of any sheep in any flock. And his uncommon sagacity enabled him, by the best selections and judicious crossings, to form a breed distinguished above all others, for *the disposition to fatten*, *early maturity*, *a form indicating strength of constitution*, *weight in the most valuable parts*, with *lightness of offals*. Mr. Young expresses his opinion, that there is not a breed of any sort of live stock in Great Britain, that does not derive its improvement from the skill, knowledge and principles of Mr. Bakewell. Another eminent Agriculturalist declares, (and Mr. Young does not think he exaggerates) "that Mr. Bakewell enabled those who followed his ideas, to produce two pounds of mutton where only one was produced before."

Mr. Young adds, that Bakewell was the most careful feeder of stock that he ever met with, and [302] who made his food go the farthest. To horses and cattle in stalls, he did not permit more than a handful of hay to be given at a time; and the same economy was used in all other feeding.—But his stocks were so large as to require one or more persons to be appropriated to that service. This practice, in our small farms and with our small stocks, cannot be fully adopted; but it may be imitated, in some degree, during the season (winter) most requiring such attention. By feeding them in this manner, the cattle will doubtless *eat more*, but they will *waste less*; so that while, in the whole, no more fodder will be consumed, the stock will be put into much better plight.

Cleanliness, also, will materially contribute to the health and thriving of stock. The common cattle-stalls of our country are so ill contrived, and so straitened in their dimensions, that the cattle are constrained to lie down, in part in their own dung. This dries and forms a thick coat on their hind quarters, from which they are not relieved till they shed their hair in the spring. They are thus rendered *uncomfortable*; to be *uncomfortable* is to suffer some degree of *pain*; and no one will suppose that animals in *pain* can *thrive*, or *preserve their plight*, with the same food, equally with others perfectly at ease. Even hogs, though prone to wallow in the mire, in warm weather, are always pleased with a dry bed, and thrive best when kept clean. I have some where read an account of an experiment made with two, confined in separate pens, and fed exactly alike: one was suffered to be constantly foul with the mire of his sty; the other, washed every day, and kept clean, far outstripped the former in thriving.

It may be useful to add some further information on Live Stock, from the writings of Sir John Sinclair, President of the British Board of Agriculture. He proposed to a gentleman in England,[10] who is eminent for his knowledge and accurate observations relative to plants and animals, some questions concerning Live Stock. In one of his answers, he says—"I have found the food animals generally require, to keep them in proper condition, is much more nearly proportioned to their *height* and *length*, than to their *weight*." In confirmation of this opinion, he adds, that one of his neighbours made a comparative experiment with the Devon and Hereford cows; and though fond of the former for their neatness, he gave them up, because "they would not nearly live upon the same food which supplied animals *stouter* and *more compact*, of the same weight."

To the question, "What is the best shape for feeding with little food?" Mr. Knight answers —"The more deep and capacious the chest, and the shorter and lower any animal is, relative to its weight, the better adapted it will be to live and fatten upon little food; the more labour it will also go through; and I have always found the short legged oxen to be the best labourers. Mr. Marshall also observes, in his Rural Economy of Gloucestershire, that the best labouring ox he ever saw, had the shortest legs."

I will detain the Society no longer than to make a few observations.

V. On Orchards.

I advert to this subject for the purpose of suggesting the utility of propagating Sweet Apples.

After providing a due proportion of apples for the table, and the ordinary purposes of cookery, I do not hesitate to express my opinion, that for all other uses, sweet apples are entitled to the preference. The best cider I ever tasted in this country, was made wholly of sweet apples. They afford also a nourishing food to man and all domestic animals. What furnishes a more delicate repast than a rich sweet apple baked and eaten with milk? I recollect the observation made to me by an observing farmer, before the American revolution, that nothing would fatten cattle faster than sweet apples. Mentioning this, a few years since, to a gentleman of my acquaintance in an adjoining state, he informed me, that he was once advised to give sweet apples to a sick horse. Happening then to have them in plenty, the horse was served with them, and he soon got well: and continuing to be fed with them, he fattened faster than any other horse he had ever owned (and he had owned many) that was fed with any other food.

Mentioning to the same gentleman, what I had long before heard, that a good molasses might be made of sweet apples, he confirmed the fact by an instance within his own knowledge: and further expressed his opinion (and I have not known a man whose practical judgment was entitled to more respect) that it would not be difficult, by forming orchards of sweet apples, to supply molasses for the general consumption of the United States. I have never tasted any sweet apple molasses; but I suppose it has not (nor has honey) the rich sweet of molasses from the [303] sugar-cane; yet, for family uses in general, it would be a useful substitute for the latter. The process in making it I suppose to be very simple.—The apples being ground, and the juice (or

cider) expressed, at the cider-mill, it is immediately boiled, (that is, before any fermentation takes place) and the scum being taken off as it rises, the boiling is continued until the liquor acquires the consistence of molasses.

Sweet apples are of different degrees of sweetness. Those of the richest kinds should be chosen for the purpose of making molasses. But in grafting, the cions should be taken (as they ought to be for all kinds of fruit) not from old, worn out trees, but from those whose originals are in full health and vigour.—For it has been satisfactorily ascertained in England, (and proofs of it are not wanting in our own country) that fruit trees have their infancy, (springing from seeds) youth, maturity, and old age; and that when they have reached this last stage, it is in vain that attempts are made to continue them. Or if the cions take, and grow for a few years, they are unproductive, and soon decay. The reason is plain: every cion is a part of the tree from which it is taken; and if this be in a state of decrepitude, so will be the cion; and although grafted on a youthful, thrifty stock, it will be of no avail.

NEW WHEAT.

A cargo of new wheat from North Carolina, of 1200 bushels, was sold last month, in Philadelphia, at 94½ cents cash.

(From the Plough Boy.)

FLEMISH HUSBANDRY.

Weeding and hoeing.—The Flemish farmer never considers his work half done until his fields are completely freed from weeds. This is effected, in a great measure, by repeated digging, by which the upper stratum that contains the seeds and roots of noxious plants, is buried sufficiently deep into the ground to prevent their vegetating. When weeds do appear, they are immediately extirpated either by the harrow before the grain is sown, or afterwards by careful and repeated hand hoeings. This they find the more necessary, to rid the earth of parasite plants, the seeds of which are mixed with the seeds of culinary vegetables, and produce plants that feed on the juices of the dung, to the great injury of the legitimate stock. A Flemish farm, in consequence of these attentions, resembles more a highly cultivated garden, than many places which bear that name. When I first beheld these fields, I supposed them actually to be gardens, and was only undeceived when further observation and inquiry convinced me, that the whole country was cultivated in a similar manner, and presented the same delightful scene.

Choice of Seeds.—It is an invariable practice in Flanders, never to use for seed the grain grown on the land to be sown; nor is the expense regarded when the object is to obtain heavy and healthy seed. Farmers in distant districts exchange seeds with each other, and journies of hundreds of miles are frequently taken to accomplish this desirable purpose. Vanderstractan mentions two farmers, whose grounds were alike, and who cultivated them with equal skill and industry. They had both been long in the practice of procuring excellent seed potatoes from Brabant, which yielded in that province two hundred cwt. per English acre. When transplanted, the produce was regularly, year after year, five hundred and forty cwt. per acre.[11] One of these men having, one year, to save the expense of carriage, used potatoes of his own growth, the original produce of Brabant, soon repented the step, and returned to his former practice. [304] Flanders usually receives its supply of flax-seed from the north of Europe; but having, during the latter years of the reign of Napoleon, been deprived of that supply, through his restrictive decrees; the produce of that valuable plant was not more than half the usual quantity, which besides was greatly inferior to preceding crops.

Although the Flemish are the most particular people in the world as to the choice of their seeds, they are sometimes deceived. An instance of this happened a few years ago, which was followed by very injurious consequences. A person brought some flax-seed from Riga, which he sold for sound seed. It was, however, superanuated, but he had contrived to give it a fresh and healthy appearance, and thus imposed on the best judges. The farmers, deceived by the false mark, bought and sowed the seed, none of which ever appeared above the ground. "The desolation of the country was universal; the loss was estimated at several millions of florins; and the offender escaped the punishment he merited, only through the intercessions of several powerful friends, who found means to stifle the affair, notwithstanding the cries of its numerous victims." I recollect a case somewhat similar to this, which happened a few years ago in Edinburgh. A respectable seed merchant there purchased a quantity of flax-seed from a foreigner, which he sold again in small parcels to the farmers, who, on sowing it, found that it was unsound, as no part of it was productive. The seed merchant was sued, and although he distinctly proved, that he made the purchase himself under the impression that the seed was fresh, and paid a fair price for it, he was found liable in damages to the amount of the loss sustained by the farmer who sued, upon the ground that he was bound to guarantee every article which he sold at the regular market price, whether he was imposed upon himself or not. These lessons were not thrown away. In Flanders, as well as in Scotland, no foreign seed is purchased,

until the purchasers be fully satisfied as to the quality of the article, and the character of the seller.

The Flemish practice, with regard to a change of seeds, has long prevailed in Scotland, not only as to potatoes, but as to wheat, barley, oats, and all other grain. The Scotch potatoes have always appeared to me superior to those raised in England, where the same attention is not shown to the choice of seed. It is a fact, also, well known in these countries, that the barley raised in Scotland, though greatly inferior in *appearance* to English barley, and raised in a colder climate, contains more saccharine matter, or nourishment. This has been tested by experiments at the distilleries, under the immediate inspection of officers appointed by the government, who reported a greater quantity of spirit obtained from barley, the growth of Scotland, than from that produced in England. The beef sold in the London markets, which had been reared in the Scotch distilleries upon the refuse grains, uniformly sells at from three to four cents a pound more than that fed at any of the English distilleries.

This superiority unquestionably arises from the greatly improved system of agriculture, *generally* introduced into Scotland, but it is owing in nothing so much as to the very scrupulous attention there paid to the choice of seed. Of late years, this branch of husbandry seems to have considerably attracted the notice of the English farmers; some of whom, as appears from the English newspapers, have found it greatly to their interest to cultivate wheat, in particular, obtained from foreign places, which, when grown, they convey to distant parts of the country, and sell exclusively for seed wheat. It was mentioned in the Cumberland Packet (an English [305] journal) of 14th October, 1816, "that a farmer had obtained *l.*40, ($170,) per load, of 30 bushels, for seed wheat, on account of its great product. He had also, obtained the same price for seven years past for this wheat, which had been originally imported from abroad."

Rotation of Crops—The intelligent agriculturalists of England are well aware, that the more the rotation of crops are varied, the more abundant is their produce; but this opinion is confined to a few in that country. It is only in Flanders that the idea of exhausting the soil, by repeated cropping, is exploded, and the rotation system brought to the greatest possible state of perfection. The ground being prepared in the manner before stated, the Flemish farmer adopts either one or the other of the following courses:

FIRST COURSE FOR THREE YEARS.

First year.—Oats are sown about the end of February, or beginning of March. These are cut green toward the end of April, or beginning of May, and given to the cattle for food, which they eat with great pleasure. It is found that this crop, as it is not allowed to throw out the ears, does not exhaust the soil, or take anything from the subsequent crop.[12] Winter potatoes are now sown for a *second* crop; previous to which the land is dug and manured. When of a middling size the potato is planted whole, but if very large, the eye only is used.

Second year.—Wheat forms the first crop; and scarcely are the sheaves removed from the ground, when the farmer promptly turns up the earth, and sows spurry. Sometimes carrots are sown with the wheat.

Third year.—Rye; which is followed by Turnips.

SECOND COURSE FOR THREE YEARS.

First year.—Flax preceded by green oats. After the flax, carrots.

Second year.—-Wheat; followed by Spurry.

Third year.—Rye and turnips.

THIRD COURSE FOR THREE YEARS.

First year.—Female Hemp; after which, Turnips.

Second year.—Flax, then carrots.

Third year.—Wheat and spurry.

FOURTH COURSE FOR THREE YEARS.

First year.—Flax, preceded by green corn. After the flax, carrots.

Second year.—Cole-seed; then turnips.

Third year.—Wheat; then spurry.

These courses are sufficient to give a pretty correct idea of the Flemish system of rotation. It will be seen that wheat never succeeds to clover: it almost always follows flax, hemp, cole-seed or potatoes. Clover greatly encourages the growth of dog grass, which, if not completely torn up, with all its roots, the least fibres of the latter which escape, will each produce a new plant, greatly to the prejudice of the wheat. In England the fields are always more or less infected with [306] this pest, while the practice pursued in Flanders completely protects them against it—Wheat is also materially benefited in Flanders, by the repeated digging up, and hoeings, which potatoes require; and by the abundance, and judicious application of manure, spread during the first year of the course. This loses only part of its fertilizing salts, leaving the earth in a high state of

fertility, which the Flemish farmer knows well how to augment to the requisite degree without causing the wheat to shed; a circumstance apt to occur, where too great a quantity of manure is used.

The following comparative tables, shewing the value which is obtained from one acre in *four* years, by a farmer, following the Norfolk course, in England, and that obtained, from the same space in *three* years according to the Flemish course, will best illustrate the superior advantages of the latter over the former:

TABLE I.——ENGLAND.

1st. *year*. Turnips, according to Arthur Young,	*l.*	2	4 0
2d. do. Barley,		4	0 0
3d. do. Clover,		3	12 0
4th. do. Wheat,		6	0 0
Wheat Straw,		3	2 6
Barley, do.		0	15 7
Total produce in 4 years,	*l.*	19	14 1

Giving one year with another, *l.*4 18 6¼ per acre.

TABLE II——FLANDERS.

1st. *year*.	Green Oats,	*l.*	0 16	8
	Potatoes,		10 5	1
2d. do.	Wheat,		3 7	8
	Spurry,		2 0	1
3d. do.	Rye,		2 0	0
	Turnips,		2 1	6
	Wheat Straw,		1 0	10
	Rye do.		1 3	2
	Halm, or straw of potatoes,		0 6	2
	Total produce in 3 years,	*l.*	23 7	2

Giving one year with another, *l.*7 9 1 per acre.

From these statements, proceeding upon the most correct data, it is seen that the value of the produce of one acre of ground, cultivated according to the Flemish system for *three* years, is, (within a fraction,) 50 per cent. more than what is produced in *four* years from an equal space of ground, managed agreeably to the most approved principles of English husbandry. The advantages of the Flemish farmer, will appear still more striking, when the nett profit which he clears, after paying the necessary expenses of cultivation is contrasted with that of the English farmer. According to Arthur Young, the English farmer receives about four and a half twentieths of the produce, calculating the gross produce of the soil at twenty. This upon *l.*4 18 6¼, (the result per acre, for one year, as in Table I.) would give *l.*1 2 1¼.

The produce, per acre, for one year, in Flanders (see Table II.) is *l.*7 9 1; the expense of cultivation, land tax, and rent, according to Vanderstraten, is *l.*4 0 1; leaving to the farmer *l.*3 9 0; or nearly *four* times the amount obtained by the English farmer.

The subject of *Flemish Husbandry* is by no means exhausted. I shall resume it in future communications.

Your's, respectfully,

GEO. HOUSTON.

New York, June 1, 1820.

CHESTER AGRICULTURAL SOCIETY.

WESTCHESTER, (PENN.) JUNE 21, 1820.

[The following interesting document giving an account of the proceedings of the Chester County Agricultural Society, is well worthy the attention of our agricultural readers.—ED.]

At a meeting of the Agricultural Society of Chester County, held at the Courthouse in Westchester, 6th Mo. 10th, 1820, Dr. William Darlington, Vice-President, in the Chair; Isaac Sharpless, Secretary. The Committee of Correspondence produced to the meeting the following Report; which being read was unanimously adopted, viz.

REPORT.

The Committee appointed by the Society to propose plans for its adoption, believing that the objects which may properly claim the attention of the Association, are very numerous, are therefore free to suggest, whether it would not be advantageous to institute several standing committees, each of which should cultivate a particular department of Agriculture, or some of the sciences that may minister to its improvement.

If the Society should approve of this plan, we propose that these committees should be made up by voluntary associations among the members as far as practicable, each being at liberty to join himself to such as he may choose, and all vacancies and deficiences in the numbers of said committees should be filled by the presiding officer. They should in no case consist of less than five members, whose names should be entered on the minutes of the Society; and they should each have a secretary to receive communications, to arrange and digest the scattered materials they may collect, and to lay before the society such as may be thought worthy of its attention.

All books, models, drawings, or specimens, that any of these committees procure in the course of their labours, shall be kept in such place as it should direct.

It is recommended that the formation of the following standing committees be authorized at the time—to be renewed at the first stated meeting in each year.

1st. A committee on farm buildings, fences and implements of husbandry. To study the improvement of houses, barns, barn-yards and out buildings, both as it regards the plan and materials. To examine the relative cost of the different kinds of fences, and the best methods of constructing or raising them. To make improvements in the implements of husbandry, and to introduce such as may be made in other places.

2d. A committee on the Veterinary Art—To investigate the nature and origin of the diseases of domestic animals, and endeavour to ascertain the best methods of prevention and cure.

3d. A committee on Natural History, particularly Mineralogy and Entomology. To develope the mineral productions of the County, and to ascertain its geological structure, partly for the purpose of designating the kind of soil in each neighbourhood. To examine the habits of such insects as injure the crops of the farmer, with a view of discovering the means of destroying them, or preventing their ravages; and such other branches of Natural History as are interesting to the Agriculturalist.

4th. A committee on Political Economy. To attend to the political interests of Agriculture, and examine the manner in which public measures affect it. To inquire into the utility of public improvements, such as canals, bridges, and turnpike roads, and into the means of giving the Agricultural class its due weight in the government.

5th. A committee on Domestic Animals. To inquire after and introduce the best kind, to endeavour to ascertain the most economical and the best methods of rearing, managing and feeding them, together with facts on the relative advantages of the employment of horses and oxen for labour.

6th. A committee on grasses, grains and roots. To inquire after and recommend the best and most profitable kinds, the time and manner of sowing and planting, with the most proper quantity of each per acre, also the previous preparation of the ground and seed, together with the best method of culture.

7th. A committee on Manures.—To endeavour to ascertain the relative advantages of barn-yard [308]
manure, plaister, lime, burnt clay, ashes, and all other kinds of manure, with the time and manner of application of each, whether best applied on ploughed or grass lands, on the surface or ploughed in, deep or shallow; together with the best methods of accumulating and preparing barn-yard and stable manure.

8th. A committee on fruit and forest trees.—To endeavour to ascertain the best and most useful fruits of all kinds, with the best method of making wine, and cider, &c. To examine the causes of the premature decay of fruit trees, with a view to their preservation. To ascertain the best time of cutting forest trees, as it respects the durability of the wood, under ground, or exposed to the weather; also for fuel.

9th. A committee on irrigation and draining.—To ascertain the most profitable times of irrigation, with its uses. Also, the best and most effectual methods of constructing drains.

10th. A committee on Horticulture.—To ascertain the best and most approved methods of managing kitchen gardens, attend to the introduction of useful vegetables, modes of culture, &c.; and also to promote good taste in the planning and arrangement of gardens generally.

We further propose that the society recommend to each of its practical members, regularly to enter in writing, the preparation and state of the ground, at the time of sowing or planting each crop, the quantity and kind of manure and seed per acre, particulars relative to the weather, the process of culture, the times of sowing and gathering, and the amount of produce per acre, with such other particulars as may be thought worthy of notice, each part of which to be annually laid before them, in order that such facts as are deemed worthy of preservation, may be laid before the society.

Resolved, That the members of the society generally, and such others as are friendly to the objects of the association, be requested to furnish the several committees above named with such information relative to the subjects for which they are appointed as may be in their possession.

WM. DARLINGTON, *V. Prest.*

ISAAC SHARPLESS, *Sec'y.*

ON THE CULTURE OF TURNIPS.

Turnips for fall and winter use are generally sown in the last of July. I have been long apprehensive that this sowing was too early. The weather at this season of the year is generally very hot and very dry; and drought has a direct tendency to dwarf and spoil a field of young turnips; the black fly, also, a natural enemy of the turnip, is at this period very voracious, and the crop is too often destroyed, or rendered unprofitable from one or the other of these causes.

With a view to remedy these evils, I sowed my turnips two seasons ago, very late in August. My neighbours laughed at me, and said I would not have a single mess. I had, however, more and better turnips than any of them. Encouraged by the success, I sowed the last year, on the 25th of August, a small piece of ground, eight rods only, with turnips. They came up well, and not a fly touched them. When they had four or five leaves I directed one of my men to weed and thin them, so as to have them stand eight or ten inches apart. The ground afterwards was slightly stirred with a garden hoe. The leaves grew rapidly, covered the ground, and prevented the further growth of weeds. On the 11th of November, I pulled the turnips, trimmed and measured them, and had on the eight rods of ground, (the twentieth part of one acre only,) forty-five bushels of as large and well formed turnips as I ever saw. This produce is at the rate of nine hundred bushels to the acre. The soil is a sandy loam, in good heart, but by no means in high tilth.

I sowed two other small pieces of ground, the one on the 1st, and the other on the 8th of [309]
September. Neither of these yielded like the one sowed on the 25th August; but each of them produced much larger and better turnips, than I have seen, that were sowed at the usual time.

I attribute my success altogether to the late sowing; the heat is then less intense, the rains more frequent, the dews more copious, the fly harmless, and the crop abundant.

I would earnestly recommend to the farmers to set apart a small piece of ground, and try the experiment of late sowing, and I am confident they will be amply compensated for making the attempt, by a greater increase of crops.

[*Connecticut Courant.*

(From the American Farmer.)

On the use of Oxen and deep ploughing in New England, by Josiah Quincy, Esq.

BOSTON, Nov. 2, 1817.

My dear Sir,

In reply to your inquiries in your last letter I answer:—Oxen are used almost wholly for plough and team work in this quarter of the country. A single horse is usually kept by our principal farmers, to go to mill, and to church, and for the convenience of the family. Occasionally he precedes the oxen at plough, or on the road. This is so universal as to be almost without exception, among mere farmers. They certainly answer all purposes, except perhaps speed; and in this, on a long journey, they are considered as quite equal to horses. But of this our farmers have not many opportunities of comparison, oxen are so universally used. They are "worked" with yokes, and "broken" when very young, pretty much as men break horses.—Our farmers are so satisfied with their utility and economy that no argument would induce them to change.

A very good yoke of oxen will cost when well broke, and about five years old, if well matched and of good size' from 80 to 100 dollars. They continue good, without accident, and with good usage, until ten years old; then they are usually fatted, and bring from the butcher according to their size and fatness from 100 to 120 dollars.

Whether oxen are not more susceptible of *heat* than horses, I am ignorant. My opinion is that they are. A circumstance in your climate to be ascertained in forming an opinion of their comparative utility.

With respect to "deep ploughing," a considerable change is producing in this state, in the opinion and practice of farmers in this respect. Deep ploughing begins to be more general than formerly. I should state *five* inches to be the most approved practice, on turning up the sord for corn. With respect to deepening it for other crops, after the sord is broken, it depends upon the nature of the crop and the resources of the farmer, and also the state of his soil. My own rule is never to lay down land to grass until it has been turned up to the depth of *fourteen inches*. But my practice is peculiar, as I carry a regular succession of, 1st corn, 2d potatoes, 3d carrots, 4th grain, 5th grass, over my whole farm; considering, as I do, that *carrots* is of all farm products the most profitable, and using them as the test of the actual state of the depth of tilth on my farm.

Undoubtedly when the depth of ploughing pass the old tilth, and enters upon the virgin soil, "manuring" must be in proportion to the depth of the virgin soil, which you turn, otherwise you

sacrifice present crop to future crops;—a practice very discouraging to any farmer.

I enclose you the newspaper account of our last cattle show. A more detailed statement will appear in our Repository.

Respectfully,

I am your humble servant,
JOSIAH QUINCY.

GEO. W. JEFFRIES, ESQ.

SUGAR MAPLE.

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A letter writer in the Albany Statesman, in giving an account of the New York canal, says—

"I saw for the first time the famous ascersaccharinum, or sugar maple. It grows spontaneously like all other trees of the forest, and is a most beautiful and stately tree.—It is said that each tree will produce from three to five pounds of sugar. An acre will contain 30 trees, and a tree will be fit for use in 15 years, and will probably continue so for two centuries. An orchard of ten acres would produce annually two hogsheads and a half of sugar, which can be made as good in all respects as the produce of the cane or the sweet beet. I speak from ocular observation and from taste. Mon. Le Ray, a very respectable and sensible land holder in Jefferson county, showed me at Washington Hall, in New York, a sample of maple sugar, which I have never seen excelled, and which was raised on his estates in that county; and I have been told by Mr. George Parish, a most accomplished and public spirited gentleman, from St. Lawrence county, that the inhabitants of that region not only supply themselves with maple sugar for domestic uses, but have a surplus for market. A plantation of maple trees of ten acres, beside being highly ornamental and beneficial for pasture—besides the use of the decayed trees for fuel, and the acquisition of excellent syrup and molasses, and a sufficiency of sugar, for family purposes, will yield a profit of $100 to the proprietor; and these operations are carried on in the month of March, continue but a short time, and interfere with no other business. The forests of the north and west, will supply the other parts of the state with the best of sugar and molasses through the great canals."

From Scoresby's Voyages.

SURPRISING VIGOUR OF A WHALE.

On the 25th of June, 1812, one of the harpooners belonging to the Resolution, of Whitby, under my command, struck a whale by the edge of a small floe of ice. Assistance being promptly afforded, a second boat's lines was attached to those of the *fast-boat*, in a few minutes after the harpoon was disgraced. The remainder of the boats proceeded at some distance, in the direction the fish seemed to have taken. In about a quarter of an hour the fast-boat, to my surprise, again made a signal for lines. As the ship was then within five minutes sail, we instantly steered towards the boat, with the view of affording assistance by means of a spare boat we still retained on board. Before we reached the place, however, we observed four oars displayed in signal order, which by their number, indicated a most urgent necessity for assistance. Two or three men were at the same time seen seated close by the stern, which was considerably elevated, for the purpose of keeping it down; while the bow of the boat, by the force of the line, was drawn down to the level of the sea, and the harpooner, by the friction of the line round the bollard, was enveloped in smoky obscurity. At length, when the ship was scarcely 100 yards distant, we perceived preparations for quitting the boat. The sailor's pea-jackets were cast upon the adjoining ice, the oars were thrown down, the crew leaped overboard, the bow of the boat was buried in the water, the stern rose perpendicularly and then majestically disappeared. The harpooner having caused the end of the line to be fastened to the iron ring at the boat's stern, was the means of its loss;[13] and a *tongue* of the ice, on which was a depth of several feet of [311] water, kept the boat, by the pressure of the line against it, at such a considerable distance, as prevented the crew from leaping upon the floe. Some of them were therefore put to the necessity of swimming for their preservation, but all of them succeeded in scrambling upon the ice, and were taken on board of the ship in a few minutes afterwards.

I may here observe, that it is an uncommon circumstance for a fish to require more than two boats' lines in such a situation; none of our harpooners, therefore, had any scruple in leaving the fast-boat, never suspecting, after it had received the assistance of one boat with six lines or upward, that it would need any more.

Several ships being about us, there was a possibility that some person might attack and make a prize of the whale, when it had so far escaped us, that we no longer retained any hold of it; as such, we sat all the sail the ship could safely sustain, and worked through several narrow and intricate channels in the ice, in the direction I observed the fish had retreated. After a little time it was descried by the people in the boats, at a considerable distance to the eastward; a general chase immediately commenced, and within the space of an hour three harpoons were struck. We

now imagined the fish was secure, but our expectations were premature. The whale resolutely pushed beneath a large floe that had been recently broken to pieces by the swell, and soon drew all the lines out of the second fast-boat; the officer of which, not being able to get any assistance, tied the end of his line to a hammock of ice, and broke it. Soon afterwards, the other two boats, still *fast*, were dragged against the broken floe, when one of the harpoons drew out. The lines of only one boat, therefore, remained fast to the fish, and this with six or eight lines out, was dragged forward into the shattered floe with astonishing force. Pieces of ice, each of which was sufficiently large to have answered the purpose of a mooring for a ship were wheeled about by the strength of the whale; and such was the tension and elasticity of the line, that whenever it slipped clear of any mass of ice, after turning it round, into the space between any two adjoining pieces, the boat and its crew flew forward through the crack, with the velocity of an arrow, and never failed to launch several feet upon the first mass of ice that it encountered.

While we scoured the sea around the broken floe with the ship, and while the ice was attempted in vain by the boats, the whale continued to press forward in an easterly direction towards the sea. At length, when 14 lines (about 1680 fathoms) were drawn from the fourth fast-boat, a slight entanglement of the line, broke it at the stem. The fish then again made its escape, taking along with it a boat and 28 lines. The united length of the lines was 6720 yards, or upwards of $3\frac{3}{4}$ English miles; value, with the boat, above 150*l.* sterling.

The obstruction of the sunken boat, to the progress of the fish, must have been immense; and that of the lines likewise considerable; the weight of lines alone, being 25 hundred weight.

So long as the fourth fast-boat, through the medium of its lines, retained its hold of the fish, we searched the adjoining sea with the ship in vain; but, in a short time after the line was divided, we got sight of the object of pursuit, at the distance of near two miles to the eastward of the ice and boats, in the open sea. One boat only with lines, and two empty boats, were reserved by the ship. Having, however, fortunately fine weather, and a fresh breeze of wind, we immediately gave chase under all sails; though, it must be confessed, with the insignificant force by us, the distance of the fish, and the rapidity of its flight considered, we had but very small hopes of success. At [312]
length, after pursuing it five or six miles, being at least nine miles from the place where it was struck, we came up with it, and it seemed inclined to rest after its extraordinary exertions. The two dismantled or empty boats having been furnished with two lines each, (a very inadequate supply,) they, together with the one in a good state of equipment, now made an attack upon the whale. One of the harpooners made a blunder; the fish saw the boat, took the alarm, and again fled. I now supposed it would be seen no more; nevertheless, we chased nearly a mile in the direction I imagined it had taken, and placed the boats to the best of my judgment, in the most advantageous situations. In this case we were extremely fortunate. The fish rose near one of the boats, and was immediately harpooned. In a few minutes two more harpoons entered its back, and lances were plied against it with vigour and success. Exhausted by its amazing exertions to escape, it yielded itself at length to its fate, received the piercing wounds of the lances without resistance, and finally died without a struggle. Thus terminated with success, an attack upon a whale, which exhibited the most uncommon determination to escape from its pursuers, seconded by the most amazing strength of any individual whose capture I ever witnessed. After all, it may seem surprising, that it was not a particularly large individual; the largest lamina of whalebone only measuring 9 feet six inches, while those affording 12 feet *bone* are not uncommon.[14] The quantity of line withdrawn from the different boats engaged in the capture, was singularly great. It amounted, all together, to 10,440 yards, or nearly six English miles. Of these, 13 new lines were lost, together with the sunken boat; the harpoon connecting them to the fish having dropt out before the whale was killed.

"*Fishers thrown overboard, by the jerking or sudden heeling of the Boats, in consequence of blows from Whales.*—On the third of June 1811, a boat from the ship Resolution, commanded at the time by myself, put off in pursuit of a whale, and was rowed upon its back. At the moment that it was harpooned, it struck the side of the boat a violent blow with its tail, the shock of which threw the boat-steerer to some distance into the water. A repetition of the blow projected the harpooner and line-manager in a similar way, and completely drenched the part of the crew remaining in the boat, with the sprays. One of the men regained the boat, but as the fish immediately sunk, and drew the boat away from the place, his two companions in misfortune were soon left far beyond the reach of assistance. The harpooner though a practised swimmer, felt himself so brushed and enervated by a blow he had received on the chest, that he was totally incapacitated from giving the least support to his fellow sufferer. The ship being happily near, a boat which had been lowered on the first alarm, arrived to their succour, at the moment when the line-manager, who was unacquainted with the art of swimming, was on the point of sinking, to rise no more. Both the line-manager and harpooner were preserved; and the fish, after a few hours close pursuit, was subdued.

A large whale harpooned from a boat belonging to the same ship, became the subject of a general chase on the 23d of June, 1809. Being myself in the first boat which approached the fish, I struck my harpoon at arm's length, by which we fortunately evaded a blow that appeared to be aimed at the boat. Another boat then advanced, and another harpoon was struck, but not with the [313]
same result; for the stroke was immediately returned by a tremendous blow from the fishes tail. The boat was sunk by the shock; and, at the same time, whirled round with such velocity, that the boat-steerer was precipitated into the water, on the side next to the fish, and was accidentally carried down to a considerable depth by its tail. After a minute or so, he arose to the surface of the water and was taken up, along with his companions, into my boat. A similar attack was made on the next boat which came up; but the harpooner being warned of the prior conduct of the fish,

used such precautions, that the blow, though equal in strength, took effect only in an inferior degree. The boat was slightly stove. The activity and skill of the lancers soon overcame this designing whale, accomplished its capture, and added its produce to the cargo of the ship. Such intentional mischief on the part of a whale, it must be observed, is an occurrence which is somewhat rare."

From a work, entitled, "A Statistical, Commercial and Political Description of Venezuela, Trinidad, Margarita, and Tobago."

WILD HORSES AND ASSES.

There are thousands of horses which are wild in the forests, and do not belong to any one. I was enabled to ascertain a fact, known to all who have travelled in this country. The horses live there in societies, generally to the number of five or six hundred, and even one thousand: they occupy immense savannas, where it is dangerous to disturb or try to catch them. In the dry season they are sometimes obliged to go two or three leagues, and even more, to find water. They set out in regular ranks of four abreast, and thus form a procession of an extent of a quarter of a league. There are always five or six scouts, who precede the troop by about fifty paces. If they perceive a man or jaguar (the American tiger,) they neigh, and the troop stops: if avoided, they continue their march; but, if an attempt be made to pass by their squadron, they leap on the imprudent traveller, and crush him under their feet. The best way is always to avoid them, and let them continue their route: they have also a chief, who marches between the scouts and the squadron, and five or six other horses march on each side of the band,—a kind of adjutants, whose duty consists in hindering any individual from quitting the ranks. If any one attempts to straggle either from hunger or fatigue, he is bitten till he resumes his place, and the culprit obeys with his head hanging down. Three or four chiefs march as the rear guard, at five or six paces from the troop. I had often heard, at Trinidad, of this discipline among the wild horses, and confess that I could scarcely believe it, but what I have just stated is a fact which I witnessed twice on the banks of the Guaripiche, where I encamped five days, for the express purpose of seeing those organized troops pass. I have met, on the shores of the Orinoco, herds of fifty to a hundred wild oxen: a chief always marched at the head, and another at the rear.

The people of the country have assured me, that the wild asses, when they travel, observe the same discipline as the horses; but the mules, though they also live in troops, are continually fighting with each other, and it has not been observed that they have any chief. They however unite, at the appearance of a common enemy, and display still more trick and address than the horses, in avoiding the snares which are laid for catching them, and also for escaping when taken.

PREMIUMS FOR WORKMANSHIP.

Boston, July 6.—Agreeably to custom, that useful and popular Institution, the Massachusetts Charitable Mechanic Association, availed themselves of this Anniversary, to distribute the [314] MEDALS and PREMIUMS offered by them for exhibitions of superior workmanship and genius.—We think the occasion happily selected, as the *Mechanic Arts* are one of the first sources of the *Independence* of a nation, and are free from any of the objections which are made to the undue increase of manufactures.

The Government Judges of Premiums, and Marshals, having breakfasted with their President, proceeded at an early hour to the Washington Gardens, where the examination of the articles presented, was finished, and the awards made. The President then announced, that Judges had awarded the Medal, of the value of twelve dollars, to Messrs. Fearing and Emerson, harness makers, of this town, for the best specimen of an entire Chaise Harness, silver plated, and entirely of American workmanship. The second premium of six dollars, was also awarded to these gentlemen.

That a Medal, of the value of twelve dollars, was awarded to Mr. Thomas Burdle, of Boston, for the best made six-pannelled door; and that the premium of six dollars was awarded to Henry Chulbrick, for the next best.

That a Medal, of the value of twelve dollars, was awarded to Mr. Addison Bacon, Hanover-street, for the best made pair of Chaise Wheels; and that a premium of six dollars was awarded to Mr. Oliver Ames, of Norton, for the next best.

That a Medal, of the value of eight dollars, was awarded to Wm. Jordan, (an apprentice of Mr. Daniel Adams) for the best made Ship Block, with two sheeves; and that the premium of four dollars was awarded to John B. Ingolls, (an apprentice of Messrs. Dupee and Badger) for the next best.

That a Medal, of the value of six dollars, was awarded to Peter Albern of Boston, (an apprentice of Mr. David Peeler) for the best made pair of Half Boots; and the premium of three dollars to Samuel B. Pope, (an apprentice to his father, in Quincy) for the second best made pair.

John J. Bickner, an apprentice of Attleborough, presented a Barrel, for which no premiums has been offered this year; and the government, in consequence of the expense he had incurred by the mistake, directed the Treasurer to present him with the sum of seven dollars and seventy-five cents. The medals and premiums, were now delivered.

The articles exhibited, were mostly of excellent workmanship, and it was only regretted that the specimens were not more numerous, and which we trust they will be, should the premiums be repeated.

MISCELLANY.

From Johnson's Influence of Civil Life, Sedentary Habits and Intellectual Refinements, or Human Health and Happiness, &c.

Parallel of enjoyment and suffering in drink.—The water drinker glides tranquilly through life, without much exhileration or depression, and escapes many diseases to which he would otherwise be subject. The wine drinker experiences short, but vivid periods of rapture, and long intervals of gloom; he is also more subject to disease. The balance of enjoyment, then, turns decidedly in favour of the water drinker, leaving out his temporal *prosperity* and future anticipations; and the nearer we keep to his regimen, the happier we shall be. Here, however, as is in all other things, there is a certain latitude within the range of health and happiness which the wise man and the philosopher will occasionaly travel round, but not exceed.—The *native fountain* is in the centre, and from it our eccentric divergences should be narrowly watched and carefully limited.

Density, weight, &c. of the earth.—From the experiment of Maskelyne, and the calculations of [315]
Hutton, Cavendish, Laplace, &c. it appears, that considering the specific gravity of water as unity, the mean density of the earth would be according to Hutton, 4.95, or according to Cavendish, 5.48. The mean most commonly adopted is 5.4. Taking this as our ground work, we may now proceed to that most singular question of *weighing* the earth.

Assuming 7920 miles as the mean diameter of the earth, the number of cubic miles will be 239,979,311,961. Now each cubic mile contains 147,197,952,000 cubic feet; also every cubic foot of water weighs 1000 avoirdupoise ounces.

Hence a cubic mile of water will weigh 4,107,085,714 tons, and consequently a globe of water of equal dimensions with our earth would weigh 985,594,985,000,000,000,000 tons, and that multiplied by the calculated density 5.4, gives 5,322,212,919,540,000,000,000 tons for the weight of our earth.

Fruit.—The Poughkeepsie Herald states, that Mr. Joseph Waddle, of the town of Washington, Dutchess county, has sold, at the New York market, during the last six weeks, the produce of ten apple trees for the almost incredible sum of three hundred and sixty dollars—they were of a species called Summer Russets; the quantity fifty barrels. These apples grew on ten trees, which altogether occupy less than one quarter of an acre of ground. When the apples were first gathered last fall they filled fifty-three barrels, and on being picked over this spring, preparatory to sending them to market, they were reduced to fifty barrels.

Agricultural Anecdote.——Furius Cresinus, as mentioned by Pliny, the Roman historian, was originally a slave. Having been made a freedman, he purchased a small spot of ground, from which he obtained, through his unwearied industry, much finer crops than many of the neighbours, who had larger farms. This excited general envy, which his enemies carried to such a length as to accuse him of employing magic charms to render his own grounds fertile and to impoverish heirs. The *Edile* caused him to be summoned to appear and answer the charge before the people of Rome. Crecinus obeyed the mandate, accompanied by his daughter, a fresh and healthy coloured girl—charms which appeared to greater advantage from the symplicity of her dress. The accused also brought with him the tools and instruments of his profession. They were in excellent condition. His mattocks were remarkably heavy, his plough was of an enormous size, and his cattle were all sound and fat. "Behold!" said this truly dignified and indignant farmer, "behold my whole magical equipage! behold the charms which I have recourse to! There are others, indeed, which I am not capable of producing before you; I mean the sweat of my brow, and incessant toils both by day and night." This native eloquence decided the matter; he was honourably acquitted by the unanimous voice of a numerous and applauding assembly.

A mechanic in the North has invented a machine for seminaries, which, by means of steam, not only warms the room, but *flogs all the boys* "on a graduated scale," according to their offences.

Dr. Line.—This noted Irish physician, who died of the small pox at the age of 85, built a house in a peculiar manner, so as to have the full benefit of the circulation of the air. Every window had another opposite to it, none of which he ever suffered to be shut or glazed. The room in which he slept had four open windows, two on each side of his bed. It was remarked that, for fifty years together nobody died in his house. He carried this doctrine to such an excess, as to contend that no house could be wholesome, where a dog could not get in under the door and a bird at the window. Upon his death, his son had all the windows glazed; soon after which, several persons [316]
were *buried out of the house*.

The late king of England concurred a little in this practice of Dr. Line. In the rooms where he

and his family resided, he never suffered a carpet to be laid; and in the chimney places allowed but a very scanty portion of fire—barely enough to aid the circulation of the air and prevent damps.

Internal Improvements.—In consequence of the facilities afforded by that part of the great canal which is completed, Plaster of Paris, or Gypsum, which abounds in the western parts of New York, is now selling at Utica at from $1.50 to $2.00 per ton, and it is supposed that any part of that great tract of country lying on the Hudson, may be supplied with it at from 4 to 5 dollars! Onondaga salt will be sold at Albany at from 31 to 37 cents per bushel; and a bushel of wheat, which formerly cost 44 cents to transport it to that city, will be brought there from the interiour, for the small sum of 5 cents. In truth, this canal when finished, will, seemingly, bring the most remote places, even the most distant points of the great lakes, into the neighbourhood of the port of New York.

The Coronation of George IV. which is to take place August, 1st, is to be conducted on the most economical scale, and is not to cost more than about $450.000!! The price of a coronation dress for a peer and peeress is estimated at about $3.600.

Marriage Promise.—In Somerset county, New Jersey, a young lady lately received the sum of 1250 dollars damages, for a breach of promise of marriage.

Mobile is becoming a place of great importance; about 10,000 bales of cotton have been shipped from this port in the present year, and 6,000 remained on hand. This shews an increase of 10,000 bales since last year; and it is calculated that at least 10,000 more will be shipped next year than in the present.

The number of letters delivered daily by the post in Paris is, on an average, 32,000; of journals, 18,000. In London, the average of letters is 133,000, and journals 26,000.

Cincinnati, June 15.—On Saturday last, in digging the well of Mr. Wright, near Harrison, in this county, near a mile from White-Water, and about 14 feet from the surface, in a bed of rounded limestone pebbles, a living frog was dug up, which in a short time, hopped away as nimbly as if he had been but a year old. There are trees contiguous, and in lower ground, more than 500 years old, which have evidently taken the places of others of equal growth; so that this frog had probably lain buried for 1000 years.

Mean temperature of the Earth.—According to Laplace, any actual diminution of the mean temperature of the earth would be detected by a diminution of the length of the day.—It appears by computation, that one degree of Fahrenheit's thermometer would make an alteration of nearly one second in the length of a day, and four or five minutes in that of a year.

Heat.—The effect of heat in expanding iron is strongly shown by a gate of that material in this town.—In the cool of the morning it shuts with a considerable spare space, (in the winter perhaps an 8th of an inch) in the middle of a hot day the joints touch, and some force is necessary to close it. The gate is about $3\frac{1}{2}$ feet wide.

[*Boston Pal.*

"Let not sleep," says Pythagoras, "fall upon thy eyes, till thou hast thrice reviewed the transactions of the past day. Where have I turned aside from rectitude? What have I been doing? What have I left undone which I ought to have done? Begin thus from the first act, and proceed; in conclusion, for the ill which thou hast done, seek repentance, and gratitude for the good."

AGRICULTURAL MEMORANDA.

[317]

To preserve Cattle from Disease in the Winter.—When cattle are kept out in the winter, it is recommended as a useful practice to rub some tar at the root of the horn, which prevents the wet from getting between the root and the skin; and it is said, contributes so preserve the health of the animal, and to keep it free from various diseases to which it may otherwise be liable.

Rules for Milking Cows.—Cows should be milked three times a day, if fully fed, throughout the summer, and *great caution should be exercised by the persons employed, to draw the milk from them completely*, not only to encrease the quantity of produce, but to preserve its quality. Any portion which may be left in the udder, seems gradually to be absorbed into the system, and no more is formed than enough to supply what is taken away; and by the continuance of the same mode, a yet further dimunition of the secretion takes place, until at length scarcely any is produced. This last mode of milking is always practised when it is intended that a cow should be rendered dry.

Additional quantity of Milk to be gained by keeping Milch Cows in the house.—In the management of cows, a warm stable is highly necessary; and currying them like horses, not only affords them pleasure, but makes them give their milk more freely. They ought always to be kept clean, laid dry, and have plenty of good sweet water to drink. Cows treated in this manner, have given ten gallons of milk at a time, when within ten days of calving.

To prevent Cows from contracting bad habits while milking.—Cows should be always treated with great gentleness, and soothed by mild usage, especially when young and ticklish, or when the paps are tender, in which case the udder ought to be fomented with warm water before milking, and touched with the greatest gentleness, otherwise the cow will be in danger of

contracting bad habits, becoming stubborn and unruly, and retaining her milk ever after. A cow never lets down her milk pleasantly to the person she dreads or dislikes. The udder and paps, should always be washed with clean water before milking; but care should be taken that none of that water be admitted into the milking pail.

Sir George M'Kenzie has discovered that oil rubbed upon the stems and branches of fruit trees destroys insects, and increases the fruit buds. Mr. John Linning, has added to the discovery, by using it successfully upon the stems of carnations, to guard them against the depredations of the earwig. The coarsest oil will suit, and only a small quantity is required.

To prevent smut in wheat.—Take four quarts of good lye, or a sufficient quantity to wet your seed, and add to it a bushel of wheat, stirring till the whole is alike wet, then sow it immediately, as the strong lye will injure the seed if delayed. The lye may be as strong as you can bare to sow without injury to the hand. A little tallow applied to the hand will prevent injury from the lye. I have continued this practice 12 years out of 20; and have never known it to fail of success. I have frequently made use of smutty wheat for seed, and found my crops perfectly free from smut. Much depends on having the lye sufficiently strong to take off the fuz on wheat.

JOSIAH BENJAMIN.

Berlin, April 26, 1820.

For preserving Eggs.—In March, put about half a pound of quick lime in a stone or earthen pot, and add a gallon of cold water;—next day fill the pot with new eggs, tie a paper over it and put the pot in a cool place. The eggs will be found perfectly good after being kept a year.

It is quite necessary to keep lime in the walks of your hens, as it causes their laying eggs throughout the winter.

FOR THE RURAL MAGAZINE. [318]

EXTRACTED FROM THE MANUSCRIPT COLLECTIONS OF C. E.

The following piece was handed about in manuscript, about the year 1776, and I do not know that it has been ever printed till now. It was said to be the production of the Rev. THOMAS COOMBE, a native Pennsylvanian, and about that time a clergyman of the Episcopal Church, in this city.

C. E.

A HYMN TO RESIGNATION.

Oh! from that high and holy sphere,
  Where, thron'd in light, you dwell,
Sweet maid, in all thy charms descend
  To gild my humble cell.

Thy presence heightens every bliss,
  Draws out the sting of wo,
Allures to brighter worlds above,
  And makes a heaven below.

The pilgrim, roving all night long,
    Through dreary tracts forlorn,
Oft sighs, oppress'd, and sighs again,
  The wish'd return of morn.

As I in sorrow's gloomy night,
  Condemn'd awhile to stray,
Look up with ardent eye to heav'n,
  And ask the devious way,

O! screen me from surrounding ills,
  Let dangers ne'er annoy,
The arrow that in darkness flies,
  Commissioned to destroy.

Inconstant as the idle wind,
  That sports with every flow'r,
When earthly friends by turns drop off,
  Friends of our brighter hour;

Do thou, mild cherub, fill my breast,
  With all that's good and wise,
Snatch me from earth's tumultuous scenes,
  And lead me to the skies.

There kindred spirits ne'er deceive;
  Soul mingles there with soul;
Sweet Sympathy and Truth are there,
  And Love cements the whole.

More welcome to this sorrowing heart,
  Oh, pensive queen, thy strain,
Than all the joys mad Riot gives
  To sooth the clamorous train.

You shade the poor man's evening walk
  With wreaths of endless green,
And, when the lamp of life declines,
  You tend the last dread scene.

Oh! then from heaven, thy holy sphere,
  Where, thron'd in light you dwell,
Come, Resignation, sainted maid,
  And gild my humble cell.

TO THE EDITORS OF THE RURAL MAGAZINE.

The following little poem was written by JOHN BYRON, a minor English poet, who died at Manchester, in the year 1763, aged 72. In his 23d year, he wrote the beautiful pastoral of Colin and Phebe, on which his poetick reputation is principally founded. It appeared in the eighth volume of the Spectator; and many of your readers will remember, what has been so generally known and admired.

My time, O ye Muses, was happily spent,
When Phebe went with me wherever I went;
Ten thousand sweet pleasures I felt in my breast:
Sure never fond shepherd like Colin was blest! &c.

The subjoined extract, it is believed, is not so familiar; and for that reason, as you must doubtless wish to exclude from your poetick corner whatever is trite and common-place, whether *professedly* original, or selected from old or distant writers, it is hoped, though a small matter, it

will not prove altogether unacceptable.

I.

THE BEAU AND THE BEDLAMITE.

A patient in Bedlam, that did pretty well,
Was permitted sometimes to go out of his cell;
One day, when they gave him that freedom, he spy'd
A beauish young spark with a sword by his side;
With a huge silver hilt, and a scabbard of steel,
That swung at due length from his hip to his heel.

When he saw him advance on the gallery ground,
The Bedlamite ran, and survey'd him all round;
While a waiter supprest the young captain's alarm,
With, "You need not to fear, sir, he'll do you no harm."
At the last he broke out—"Aye, a very fine show! [319]
May I ask him one question?"—"What's that?" said the beau?

"Pray what is that long, dangling, cumbersome thing,
That you seem to be ty'd to with riband and string?"
"Why, that is my sword."—"And what is it to do?"
"Kill my enemies, master, by running them through."
"Kill your enemies! Kill a fool's head of your own;
They'll die of themselves, if you'll let them alone."

(From the London Literary Gazette, April 22.)

SILENT WORSHIP.

Though glorious, O God! must thy temple have been,
On the day of its first dedication,
When the Cherubim's wings, widely waving, were seen
On high, o'er the ark's holy station.

When even the chosen of Levi, though skill'd
To minister, standing before Thee,
Retir'd from the cloud which the temple then fill'd,
And thy glory made Israel adore Thee:

Though awfully grand was thy Majesty then;
Yet the worship thy gospel discloses,
Less splendid in pomp to the vision of men,
Far surpasses the ritual of Moses.

And by whom was the ritual for ever repeal'd?
But by Him, unto whom it was given
To enter the Oracle, where is reveal'd,
Not the cloud but the brightness of Heaven.

Who, having once enter'd, hath shown us the way,
O Lord! how to worship before Thee;
Not with shadowy forms of that earlier day;
But in *spirit* and *truth* to adore Thee!

This, this is the worship the Saviour made known,
When she, of Samaria, found him
By the patriarch's well, sitting weary, alone,
With the stillness of noon-tide around him.

How sublime, yet how simple the homage he taught
To her, who inquir'd by that fountain,
If JEHOVAH at Solyma's shrine would be sought?
Or ador'd on Samaria's mountain.

Woman, believe me, the hour is near,
When he, if ye rightly would hail him,
Will neither be worship'd *exclusively* here,
Nor yet at the altar of Salem.

For God is a Spirit! and they, who aright
Would perform the pure worship he loveth,
In the heart's holy temple will seek, with delight,
That Spirit the Father approveth.

And many that prophecy's truth can declare,
Whose bosoms have livingly known it;
Whom God hath instructed to worship him
there,
And convinc'd that his mercy will own it.

The temple that Solomon built to his name,
Now lives but in history's story;
Extinguish'd long since, is its altar's bright
flame,
And vanish'd each glimpse of its glory.

But the Christian, made wise by a wisdom divine,
Though all human fabrics may falter,
Still finds in his heart a far holier shrine,
Where the fire burns unquench'd on the altar!

(From the Illinois Gazette.)

"What's the news," said a Quidnunc to Paddy M'Shane,
"Of our *foreign relations*—and what about Spain?"
"Our *foreign relations*," cried Pat, with a tear,
"Och! they're hanging them up by the dozen, my dear!"

O.

STATE OF THE THERMOMETER.

	9 o'clock.	12 o'clock.	3 o'clock.
June 26,	—	—	76
27,	72	74	76
28,	75	78	80
29,	76	81	85
30,	82	87	90
July 1,	85	89	90
3,	78	81	84
4,	77	80	83
5,	81	85	88
6,	82	87	90
7,	82	86	85
8,	79	81	81
10,	77	81	82
11,	78	81	84
12,	78	81	85
13,	81	86	89
14,	83	78	76
15,	74	76	78
17,	74	78	78
18,	77	80	82
19,	78	81	85
20,	79	81	81
21,	79	77	76
22,	73	75	76
24,	71	73	76
25,	74	—	—

BANK NOTE EXCHANGE,

AT PHILADELPHIA—*July 27th, 1820.*

	Per cent Disc't.
U. S. Branch Bank NOTES,	½
Rhode Island—generally,	1
Connecticut—generally,	2
Massachusetts—Boston,	1
Country generally,	4-6
New York—City Bank Notes,	par.
Country generally,	2-3
New Jersey—generally,	par.
Patterson Bank and Sussex Bank,	1
Pennsylvania—Farmer's Bank, of Lancaster; Easton; Delaware County, at Chester; Chester County, at Westchester; Farmer's Bank, Buck's County; Montgomery County,	par.
New Hope,	1
Northampton; Susquehanna Bridge Company; York Bank, Chambersburg,	2-3
Northumberland; Union,	20
Greensburg; Brownsville,	12½
Centre,	20
Meadville,	50
Farmers & Mechanics' Bank at Pittsburg,	40
Delaware—generally,	par.
Commercial Bank of Delaware; Branch of ditto at Milford,	5
Laurel Bank,	50
Maryland—Baltimore Banks,	½
Baltimore City Bank,	5
Annapolis; Hagerstown,	2½
Snowhill, Elkton,	37½-50

Havre de Grace,	1½
VIRGINIA—Richmond and Branches,	1½
Country generally,	2½
N. W. Bank, at Wheeling,	12½
COLUMBIA DISTRICT—Mech. Bank of Alexandria,	5
Country generally,	1
NORTH CAROLINA—State Bank at Raleigh, and Branches,	6½
Cape Fear; Newbern,	7
SOUTH CAROLINA—State Banks, generally,	3
GEORGIA—State Banks, generally,	6
Augusta Bridge Company,	50
TENNESSEE—No sales.	
KENTUCKY—No sales.	
OHIO—Marietta,	15-20
Steubenville Bank,	15
Bank of Chillicothe,	5
Country generally,	20-50

PRICES CURRENT.—*July 27, 1820.*

	Per	D. C.		D. C.
Beef, Philad. Mess, (pl.)	*bbl.*	13.00	*to*	13.50
Butter, Fresh	*lb.*	0.18	"	0.25
Beans, (scarce)	*bush.*	1.30	"	1.40
Cotton Yarn, No. 10,	*lb.*	0.36		
Cotton, (Louisiana)	"	0.18	"	0.21
Flax, Clean, (scarce)	"	0.18	"	0.19
Flaxseed, Clean,	*hhd.*	11.00		
Firewood, Hickory,	*cord,*	5.50	"	6.00
Oak	"	3.50		
Flour—Wheat, super.	*bbl.*	4.62	"	4.75
Rye,	"	2.75	"	2.87
Corn Meal, sales	"	3.00		
Grain—Wheat,	*bush.*	0.85	"	0.90
Rye,	"	0.50	"	0.60
Corn, Pa. do.	"	0.50	"	0.55
Barley,				
Oats,	"	0.33	"	0.37
Hams—Jersey,	*lb.*	0.11	"	0.13
Hemp, Kentucky,	*ton,*	150.00	"	160.00
Leather—Sole,	*lb.*	0.24	"	0.30
Upper, undrs'd.	*side,*	2.75	"	3.50
Molasses,	*gall.*	0.50	"	0.55
Nails, Cut, all sizes,	*lb.*	0.07	"	0.12½
Pork, Jersey & Penn. Mess,	*bbl.*	15.50		
Plaster of Paris,	*ton,*	4.37		
Shingles—Cedar,	*1000*	25.00	"	27.00
Cypress,	"	5.00		
Seed, Clover, out of season.				
Wool—Merino, Clean,	*lb.*	0.75		
Do. in Grease,	"	0.40		
Common,	"	0.50		

RAIN GUAGE AT PHILADELPHIA.

			In. hun.
July	14,	Rain,	1. 55
	17,	Shower,	0. 13
	19,	do.	0. 09
	21,	do.	0. 16
	"	do.	0. 70
	22,	Rain,	1. 16

References to the Cut of the Brewing Machine, omitted in last Number.

A Moveable Fire-Place.

B Cylindrical Boiler, to be placed on A.

C Cover for B.

D Extracting Cylinder, with a small one in its centre, fixed to the perfora, to be placed within B.

F F Coolers, one to pack within the other.

G Machine ready for use, the cover raised to show the internal.

In page 252, at the words *some time*, put a comma, instead of a period; and add, "after its temperature is sufficiently lowered, which must be effected by damping or extinguishing the fire."

ERRATA.—Page 252, note, for sachorometer, r. saccharometer. P. 253, 1st column, line 25, for fomenting r. fermenting.

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FOOTNOTES:

[1] I am a *man*, and I consider nothing that affects *man* as foreign to me.

[2] I am an *American*, and I consider nothing that affects *America* as foreign to me.

[3] See the engraving of Col. Randolph's Hill-side Plough, page 18, vol. IV. Philadelphia Agricultural Society's Memoirs.

[4] Memoirs of the Society, Vol. III. Appendix.

[5] Six cubic yards contain 162 cubic feet, or three cart loads for a pair of oxen. A cart body, 7 feet long, 4 feet wide, and 2 feet high, *in the clear*, contains 56 cubic feet; and three times 56 are 168.—I doubt the necessity of manure being "in a rotten state," seeing it is to be so deeply buried, for this or any other root crop intended for the food of domestic animals; especially for Mangel Wurtzel, which to obtain a full crop, should be sown very early, as soon as the ground is dry enough to be ploughed. The powerful fermentation of fresh dung might impart to the soil a salutary warmth in the cool spring season—At least it may be worth while to try it.

[6] These narrow ridges, as formed by the plough, are sharp; by passing a light roller over them, they are flattened to a breadth of 8 or 9 inches. The light roller, drawn by a horse, that walks in the furrow between them, flattens two ridges at a time. Thus rolled, the manure will be covered 8 or 9 inches deep.

[7] A dibble is a simple tool, which may be of different sizes and forms, according to the uses it is intended to serve. If for setting (in transplanting) cabbages or other like plants, it may be a round stick about an inch and a quarter in diameter, shaved down at one end (in a slope of 8 or 10 inches long) to a blunt point. An old spade or shovel handle is well adapted to the purpose. If much used, the slope may be advantageously covered smoothly with iron. But for putting in *seeds*, the dibble may be in the form of the letter T. To make one, take a piece of wood about 3 feet 4 inches long, and about an inch and a quarter square. In one of the sides bore holes in a line, and insert teeth at the proposed distance of the plants in the row: if for Mangel Wurtzel, at 10, 11 or 12 inches apart; and let the teeth be as long (projecting from the head place) as the proposed depth at which the seeds are to be sown. On the opposite side of the head-piece, bore a hole in the middle, large enough to receive a handle of convenient length. On the top of the handle fix a cross-piece 5 or 6 inches long, to be grasped by the hand in using the tool.—With it, as many holes for seeds will be made, at every movement, as there are teeth in the head. The handle may require bracing, in like manner as a rake handle and its head is braced by means of bows.

It now occurs to me, that perhaps the light roller used in levelling the tops of the ridges may be set with teeth, and thus perform the additional office of making holes for the seed; and with vastly greater expedition than by dibbling. A light roller, long enough

to flatten two ridges at once, of 13 inches in diameter, and furnished with two sets of four teeth each to pass along the middle of two adjoining ridges—and the four teeth of each set being inserted at equal distances in a circle of the roller,—the holes for the seed would be made at the desired distance of near one foot from each other. The teeth should be so shaped as to leave the holes made by them fairly open. For this purpose they may be an inch and a half wide and three quarters of an inch thick, where their shoulders are fayed to the roller, and taper thence to a rounded thick edge at their extremities. The same teeth, if not too long, may serve to regulate and expedite the sowing of the Ruta Baga seed.

[8] It is very important to have seeds of all kinds sown as soon as possible after the ground is ploughed and prepared to receive them, and before the moisture of the fresh-stirred earth is dissipated by the sun and drying winds; otherwise some may never vegetate, or not till after a fall of rain; and so precious time may be lost, and an uneven crop be produced.

[9] The time of taking up the Mangel Wurtzel must be regulated by the climate. There is sometimes a frost in the latter part of October, in this county, severe enough to injure this root, exposed, as the greater part of it is above ground. Light frosts, however, will do it no harm, while the roots remain in the ground, and in a degree sheltered by their leaves.

[10] Thomas A. Knight, Esq.

[11] This great produce cannot fail to astonish many persons living in this country. But let them recollect, that the upper layer of the soil, from which the crops are produced, is never changed here; that this layer, having been so often used, must have lost part of its ancient fertility; that dung is not spread in abundance with us as in Flanders; and that it is possible the species of potatoes grown here have degenerated.

[12] It is well known, that vegetables will grow in pure sand, by watering them, and that it is not till they blossom, or rather till they produce seed, that they perish. It is mentioned by Bracconnot, in the *Annales de Chimie*, for February and March, 1808, that he sowed the seeds of various plants in pure river sand, in litharge, in flour of sulphur, and even among metal, or common leaden shot; and in every instance he employed only *distilled water* for their nourishment. The plants throve, and passed through all the usual gradations of growth to perfect maturity. The author then proceeded to gather the entire produce, the roots, stems, leaves, pods, &c. These were accurately weighed, dried, and again weighed; then submitted to the ordinary means used in a careful analysis, when he obtained from these vegetables, all the materials peculiar to each individual species, precisely as if it had been cultivated in a natural soil. "Oxygen and hydrogen, (says this writer) with the assistance of solar light, appear to be the only elementary substances employed in the constitution of the whole universe: and Nature in her simple progress, works the most infinitely diversified effects by the slightest modification in the means she employs."

[13] "Giving a whale the boat," as the voluntary sacrifice of a boat is termed, is a scheme not unfrequently practised by the fisher when in want of line. By submitting to this risk, he expects to gain the fish, and still has the chance of recovering his boat and its materials. It is only practised in open ice or at fields.

[14] It has been frequently observed, that whales of this size are the most active of the species; and that those of a very large growth are, in general, captured with less trouble.

Transcriber's note:

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