

# THE SOUTHERN PLANTER;

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.  
*Xenophon.*

Tillage and Pasturage are the two breasts of the State.—*Sully.*

C. T. BOTTS, Editor.

VOL. IV.

RICHMOND, SEPTEMBER, 1844.

No. 9.

For the Southern Planter.

## CORN.

*Mr. Botts*,—I comply this morning with your request to communicate to you the particulars of an experiment which I made in the year 1842 in cultivating corn in the manner recommended by the late Judge Buel. The scene was an old tobacco lot of five acres of land—stiff clay soil—very rich and dry. The land was ploughed in March, harrowed and planted during the first week in April with the Maryland twin or Baden corn. Rows five feet apart, and the hills twenty inches distant from each other in the drill. The first dressing was given when the corn had put forth the third blade, by ploughing and hoeing. This operation was performed (as was the subsequent tillage) *without putting earth to the corn*, more than was necessary to smooth the surface round the stalk and remove what grass and weeds chanced to escape the plough. The second operation was to plough the whole space between the rows as deep as a strong horse could draw a coultter through it. This was done in order to deepen the tilth, the first ploughing being more superficial than I desired. The after cultivation was performed with a harrow and hand-hoe; the latter being used only to extirpate such weeds and grass as the former could not reach. The season was favorable and the growth of the corn rapid. About the first of July, when the corn was in silk, there came a hasty rain accompanied with wind which laid the corn flat on the ground, breaking the roots entirely loose from the earth on the windward side. The rain and wind passed off in a few hours, and I expected to see the corn regain its erect position, the broken roots strike into the loose earth and grow with undiminished vigor; but in this I was disappointed. From this time until it was gathered it remained nearly as the wind had left it, being elevated just enough to keep the ears from resting on the ground. The broken roots dried and new *prop* roots put out from the under sides of the stalks and dipped into the earth, aiding probably the maturing of the grain; but such a disturbance, occurring at so critical a juncture, very obviously injured the health of the crop and lessened its final product. The yield was a fraction less than fifty bushels per acre, and five bushels less than I had raised the

preceding year on inferior land and with seasons less propitious. The rain and wind which occasioned this prostration of the corn were such as occur almost every year during the period when our corn is silking and tasseling, and not greater than I have had within fifteen days past without doing similar injury. From these facts and observations I infer that the mode of culture recommended by Judge Buel, and generally pursued, I believe, in the Northern States, where they cultivate dwarf varieties of corn only, is unsuitable here.

Very respectfully,

Your obedient servant,

WM. B. EASLEY.

*Bluestone, Mecklenburg, July 12, 1844.*

We have long been of the opinion that the level mode of cultivation recommended by that excellent farmer, Judge Buel, was applicable only to the dwarf variety of corn raised at the North; whilst the authority of his name has frequently recommended the practice at the South. The circumstance mentioned to us by Mr. Easley exactly confirmed these views, and to save others from the casualty to which he was subjected, we asked for the communication to the Planter.

For the Southern Planter.

## TOBACCO.

*Mr. Editor*,—I ventured a few words for the Planter some time ago upon curing tobacco; I will now give you the result of an experiment upon the same subject.

About two years back, I built a new barn twenty feet square, three firing tiers below the joists; I thought I would cut two doors opposite each other for convenience, which I did; the barn was made very tight otherwise, and I cured tobacco in it the same year. By the time the next crop came in I found the top of my barn or the roof was resting on a framed shed which was attached to one side. To remedy that I prized up the body of the barn twelve or eighteen inches, and placed blocks under each corner, which left a space of eighteen inches open at bottom. The tobacco began to come to the knife so fast that we had to fill the barn before

it was stopped or closed at bottom, and commenced firing the tobacco, only setting up, or rather propping some slab plank around, to prevent the winds blowing the fire about. A day-break fire was kindled under the tobacco, (a very large lot,) attended by an experienced hand. We had very weak fires at first, thinking only to yellow and bring the tobacco to a proper condition to cure; but to my astonishment, by twelve o'clock that same day, the tobacco was drying up faster than I had ever seen before. There were only three cart loads of seasoned wood at the barn, and by sunset the leaf of the tobacco was dry to the top of the barn, and but little over half the wood burned. Next morning I examined the tobacco and found it dried up, of the same color as when fire was put under it; the stems were not dry more than half way.—In consequence of its curing up so rapidly, it was rather of a greenish color. I removed that tobacco to another barn, and filled the same barn immediately, still leaving the bottom as at first, and commenced firing more cautiously than before, but the effect was the same; the tobacco dried very rapidly, with as little wood burned. I removed that to another barn, and filled the same barn the third time, and the result was the same. Now I began to think of the cause, and finally came to the conclusion that it was by ventilating the barn at bottom and having two doors both kept open, only when the wind required one or the other to be closed. I never burn green wood under tobacco. There was an old tight barn, twenty-four by twenty feet, filled with tobacco, and it had only one door, and it required six loads of wood and two days to cure the tobacco in it. I wish others to try the plan and see what will be the result. I have been making tobacco forty years, and have tried many ways to improve the article, and finally conclude that the best way to profit by making it, is to make a good article and that only, and from the present condition of our lands that can only be done by selecting proper soil and making it rich. As to the process of curing tobacco, there is no rule by which the planter is to be governed; he must vary according to circumstances, and experience is the best teacher. A great deal depends on weather, the ripening, and the kind of soil, so that no certain rule can be laid down which can be followed; one thing though is certain; to make good tobacco, the land must be rich and free. Sun cured tobacco is highly esteemed, but were we all to adopt that plan, the supply would be too great for the demand.

A word more to those who often fail in raising plants. Clean out your hen house once a fortnight, save the manure, carefully pick up all the hog manure round about their beds, &c.; you will soon get enough to manure your plant beds. Save all your hog hair when you kill your pork; beat it fine, and sprinkle it over

your bed after sowing, and the fly will rarely touch the plants. Select moist land for plants, burn early, make rich, and you will hardly ever fail.

N. B.—At least one-third of the Virginia tobacco is cut before it is properly ripe. If tobacco be really ripe when cut it is easily cured rich, and of a good color. I have often let my tobacco stand a fortnight after my neighbors advised it to be cut. If tobacco is large, eight to ten plants is the proper number to a stick; hang the sticks eight or ten inches apart while curing. Let the tobacco yellow well before cured, and it will be a good article.

Your obedient servant,

IRBY HUDSON.

*Bryder's Store, Va., June 15, 1844.*

#### COLMAN'S AGRICULTURAL TOUR.

It will be remembered that we noticed about a year ago, that the Rev. Henry Colman, of Massachusetts, had undertaken the novel design of making an agricultural tour in Europe, intending to publish a journal of his observations, for the benefit of the agricultural community both here and there. We are indebted to the kindness of a Northern friend for a copy of the first number of this journal. We find that the whole work will be comprised in ten numbers, of at least one hundred pages each, to be issued successively at intervals of two months. Terms.—Five dollars—two dollars to be paid on the delivery of the first number—the other three on the delivery of the fifth. We shall be very happy to lend our assistance to any of our friends who desire to obtain this work, who will forward us the required sum for the purpose.—The number which we have received is gotten up in very beautiful style, ornamented with a splendid steel engraving of the "English Cart Horse."

The high expectations which we had formed from our own knowledge of Mr. Colman's abilities, have not been disappointed in this number. Being of an introductory character, it is more general in its nature, and contains less of the details of agriculture than we may hereafter expect. But his descriptions of the agricultural community of England are interesting and graphic in the extreme. We think we clearly perceive in this work evidences of the high independence and impartial fairness, which have always marked the moral character of Mr. Colman. He is not blind to the elegance and refinement of the aristocratic classes, but he is

heart stricken, as every American citizen, as every friend of human nature, should be, at the degradation and misery to which her political system has subjected the common laborers of England. To show how much superior is our much abused, and much misunderstood, system of slave-labor, we extract the following account of the *nominal* freemen of this enlightened country:

"There are two practices in regard to agricultural labor, not universal, by any means, but prevailing in some parts of England and Scotland, which I may notice. The first is called the 'Gang system.' In some places, owing to the size of farms being greatly extended, cottages being suffered to fall into decay and ruin, laborers have been congregated in villages, where have prevailed all the evils, physical and moral, which are naturally to be expected from a crowded population, shoved into small and inconvenient habitations, and subjected to innumerable privations. In this case the farmer keeps in permanent and steady employment no more laborers than are absolutely required for the constant and uninterrupted operations of the farm; and relies upon the obtaining of a large number of hands, or a gang, as it is termed, whenever any great job is to be accomplished, that he may be enabled to effect it at once and at the smallest expense. Under these circumstances he applies to a gang-master, as he is termed, who contracts for its execution, and through whom the poor laborers must find employment, if they find it at all; and upon whose terms they must work or get no work. The gang-master has them then completely in his power, taking care to provide well for himself in his own commissions, which must, of course, be deducted from the wages of the laborers, and subjecting them, at pleasure, to the most despotical and severe conditions. It is not optional with these poor creatures to say whether they will work or not, but whether they will work or die—they have no other resource—change their condition they cannot—contract separately for their labor they cannot, because the farmer confines his contracts to the gang-master; and we may infer from the Reports of the Commissioners, laid before the Government, that the system is one of oppression, cruelty, and plunder, and in every respect leading to gross immoralities. The distance to which these laborers go is often as much as five or six miles, and this usually on foot, and to return at night. Children and girls are compelled to go these distances, and consequently must rise very early in the morning and reach home at a very late hour at night. Girls and boys and young men and women work indiscriminately together. When the distance to which they go for work is ten miles, they are sent in carts. When the

distances are great, they occasionally pass the night at the pace of work, and then lodge in barns, or anywhere else indiscriminately together. To talk of morals in such a case is idle. One of the gang-masters, who has been an overseer seventeen years, gives it as his testimony, under oath, 'that seventy out of a hundred of the girls become prostitutes,' and the general account given of the operations of the system shows an utter profligacy of mind in their general conversation and manners, when morals must follow of course. If they go in the morning and stay only a little while, on account of rain, or other good cause, they are paid nothing. The day is divided into quarters, but no fractions of time are in any case allowed to them. Then the persons employed are required, in many cases, to deal with the gang-master for the supplies they receive, in payment for their labor. The results of such a system are obvious. The work being taken by the piece, the gang-master presses them to their utmost strength. The fragments of days, in which work is done and not paid for to the laborers, are all to the benefit of the gang-master, who, in such case, gets a large amount of work done at no cost. These poor wretches, being unable to contract for themselves, or to get any work but through him, he, of course, determines the price of the labor, and, one may be sure, puts it down to the lowest point. But his advantages do not end here, for there is no doubt that he gets a high advance upon the goods which he requires them to purchase of him, and thus their wages are reduced still lower. No just or benevolent mind, it would seem, can look upon any such system in all its details, as given in the Commissioners' Report, but with a profound sense of its injustice, oppression, and immorality.

"One of the gang-masters says, 'If they go to work two hours and a half, it is a quarter of a day. If they go a long walk, seven miles or so, and it comes on a wet day, there is the walk all for nothing. Children of the ages of four, five, and six, work in the gangs. They earn 9d. a day, the big ones; the small, 4d.; children of seven years old, 3d. a day.' 'It is the ruin of a girl,' says a parent, one of the laborers, 'to be in such a place as that.' 'My children's hands are so blistered,' says another of the parents, 'pulling turnips, that I have been obliged to tie them up every night this winter. Pulling turnips blisters the hands very much—they are obliged to pull them up—they must not take turnip crones (a sort of fork) for fear of damaging the turnips.'

"The gangsmen, or leader,' says another witness, 'pays the wages of all employed in the gang, and, of course, makes his profit entirely from their labor, as the farmer takes care that the gang system shall not cost him more than the common system of individual laborers.'

The leader's profit, as I have heard, is sometimes 15s. per day. The assembling of twenty-five and thirty women and children and lads, of all ages and conditions and characters, together, has a most fatal effect upon their morals and conduct.' Another respectable and reverend witness says, 'The gang is superintended by a lazy, idle fellow, of profligate manners and a dishonest character—such, at all events, are the characters of two in my own neighborhood.'

#### TO KILL ALDERS.

Have a large strong iron hook, made with an eye sufficiently large to run through it a strong draft chain. Put a yoke of oxen on to the chain, and place a hook around the clump with the point settled into the ground a little under the root. Let one person take hold of the tops of the bushes and bend them over the hook, while the other starts the oxen, and thus *twitch* them up by the main strength. In this way we once cleared several acres of thick alder growth, and they never started again.—*Maine Farmer.*

Would not this plan be a good one for extirpating *SASSAFRAS*, as well as alders?

For the Southern Planter,

#### RUST.

*Mr. Editor*,—You received a few days since a short communication (over the signature of "Graybeard,") on the subject of rust in wheat.\* If that paper be considered worthy of insertion in the Southern Planter let the following succeed as a postscript, containing, as many postscripts do, the gist of the communication.

P. S.—Since writing the above the writer called on a neighbor, who is a respectable, sensible, steady, observing and prosperous farmer, and with whom he does not often meet in consequence of an intervening river. Conversing on various subjects connected with agriculture and rust, among others he said he was satisfied that a worm, or worms, was the cause of rust, and stated that another farmer adjoining was of the same opinion. He stated that in every stalk affected by rust he found a worm, and in bright stalks he found none. The writer considered the observation unsatisfactory and the conversation passed on to the quality of the red May wheat, when a sheaf of it was sent for, to examine. In this sheaf were accidentally several stalks of late wheat, rusted, their color bearing evidence of premature cutting. He drew these out and each of us began the search for worms by splitting them down with our knives, when, to a perfect conclusion, we invariably found a

\* See page 180.

skeleton or an entire worm in the second or third joint from the head and none in the unaffected May wheat. The worm, found generally just below the upper joint, in its exhausted state was contracted and not larger than a clipped sewing thread, about the fifth or sixth of an inch long, and made up of rings. The wheat had been cut a month or more. The position taken in the body of the communication is still insisted on, viz: summer heat is necessary to give the cause of rust its injurious or destructive agency, and therefore we may not expect probable success when sowing a wheat which ripens late.

GRAYBEARD.

July 9, 1844.

#### GUANO, OR HUANO.

The following facts relative to the singular properties of this manure, are extracted from a letter recently received by the Editor of the Southern Agriculturist, from his friend in Valparaiso:

"In your last you reminded me of my promise of sending you a small bag of 'Huano,' from Peru. I will now state the reason why I did not fulfil it. About the time I received your letter, I had been applying the 'Huano' to my garden, which ended in the destruction of it, and so disgusted me, that I did not comply, and threw away what I had; this is now three years; since which I have discovered the cause of its bad effects, which was partly owing to my ignorance in using it. I put a double handful in about a quart of water, and found a portion of it dissolved and of the color of strong coffee. I poured the liquor on a piece of ground, about eight feet by four feet square, in the back part of my lot, in which were planted a grape-vine, a peach and orange tree, with a few bulbs and flowers; soon after, all my bulbs and flowers and even the weeds disappeared; and now nothing will grow on the spot; where the Huano was put, the grape-vine has not flourished since, and the other trees are stunted.

"I now understand they use it in Peru, very sparingly, and that only on ground where irrigation is required; and not in countries where they have rain. It is said that after using it, the practice must be kept up, as the ground will produce nothing without, for it acts like opium on the human system, that is to say, after once using it, the stimulant is constantly required. I would advise my friends to be cautious how they apply it to any valuable land; and very sparingly if at all. The Peruvians use it on corn land; at the time of planting, they have the corn in a bag tied round their waist, and the Huano in another; and with the thumb and forefinger, they take out a pinch and plant it a few inches from the corn, then cover the whole and irrigate the land.

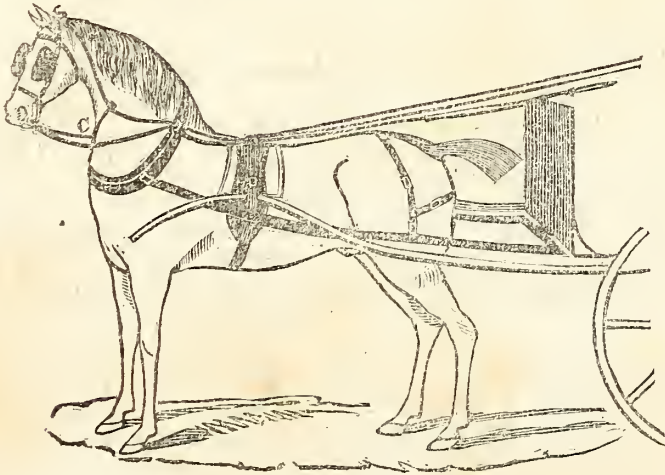
"I have seen Huano retailed by the peck and half peck at Callao, but never saw the mode of planting, only heard it described, and you observe how little they apply to the ground. The ship Orpheus, Captain Hill, is to load with four hundred tons of Peruvian Huano, which is

shipped by a company to the United States; it is better than the Chilean Huano; this will give you an opportunity to try its effects; for you can easily procure it by vessels coming to Charleston.

Yours, &c.

E. L. S."

### THE PATENT SAFETY REIN.



We alluded in a former number to Miller's Safety Rein, of which we expressed a high opinion merely from the description given of it.— Since that time, we have procured one of them, probably the only one in America, and a trial of its properties has served to confirm the opinion formerly expressed that it is calculated to supersede all other contrivances for governing an unruly horse.

The cut, which is taken from the "Spirit of the Times," is an exact delineation of the fixture, and hardly needs description. The rein is attached to the headstall, between the ears. Embracing the neck is a strong cord, C, terminating in two loops, or swivels, through which the reins are passed. When the rein is tightened, this cord moving freely upon it, settles upon the projecting part of the windpipe, where its pressure exercises a very salutary and controlling influence over the operations of the horse. We shall be happy to lend our rein, as a model, to any gentleman who may desire it, and we can recommend to him a saddler in this city, who can get up the apparatus as well and as cheaply

as any man in America. The following communication accompanies the cut in the "Spirit of the Times."

*Dear P.*—You will, perhaps, deem worthy of a place in the "Spirit of the Times" the accompanying diagram of the "safety rein" bridle, and direction for its application to runaway and restive horses. For my own part I have bought, hired, borrowed and ridden horses under a caution to "mind, he's a devil of a runaway!" but have rarely found one that could run fast enough and long enough.

J. S. S.

Washington, July 3, 1844.

J. S. SKINNER, Esq.

Dear Sir,—According to your desire I send enclosed the drawing and paper description of the *Scotch Safety Rein*, "for the control of horses, under all circumstances," which I received from Edinburgh a few weeks since. I hope you will, as you intimated to me your wish, communicate the knowledge of this simple, but, in my estimation, most valuable invention, to the Editor of the "Spirit of the Times," in order that it may be at once known to those who will duly appreciate its value; but a man must have been

run away with and have a narrow escape with his life, as was my experience not very long ago, in order *fully* to estimate this invention.

It is patented, as you will notice, for Scotland, England and Ireland, and I intended to have had it patented in this country, for the benefit of the inventor, but abandoned the idea on learning that the cost of doing so to a *foreigner* or his assignee would be as high as five hundred dollars.

I have had the rein made at Polkenhorn & Campbell's, on Pennsylvania Avenue, and use it constantly both with single and double harness. I have not tested its power on a horse running off, but from my experiments in "holding up" a hard-mouthed, hard-pulling, high-spirited Northern horse, when excited and trotting at a speed of a mile in about three and a half minutes, I feel satisfied that all said of the Safety Rein by the inventor is true, and I am moreover assured of it from what I have been told by a Scottish clergyman who lately passed a few days at my house, who says that "MILLER'S Safety Rein" is celebrated in Scotland, and that he has seen accounts in the newspapers of that country of cases where its use has been, in all probability, instrumental in saving human life.

I have found it much more convenient to have the rein attached to the driving reins instead of the splash board, by passing it loosely through two loops stitched to the driving reins about a foot forward of that part of the latter usually held in the hand when driving; arranged in this way, I find it not at all inconvenient to carry the safety rein, and not one person in ten of casual observers would notice its presence.

Very respectfully,

Your obedient servant,

THOMAS BLAGDEN.

#### DIRECTIONS FOR USE OF SAFETY REIN.

In putting on the rein for a gig, keep the buckle to the left hand, or near side; that will place the loop, which is on the middle of the rein, below the hook or head of the bridle, which prevents it from being thrown out by the motion of the horse's head. For a pair of horses, keep the two short chapes outmost, and the loops on the middle downwards. For saddle, keep the buckle to the left hand.

When the rein is used either for running, rearing, kicking or going backwards, it should be applied suddenly with a strong arm, keeping up the pressure until the horse is still; it should then be relieved suddenly, at the same time motioning the horse to go on. If he is only a runaway he will obey it at once, such horses being generally of a willing good temper. But should he possess the other vices, or any of them, it frequently proceeds from a stubborn, sulky tem-

perament; with such horses the above process may require to be repeated, until he is subdued, and obey the motion, which will be effected, even in the worse cases, after a few times.

To derive the full benefit of this rein, it is recommended after the horse has been a few times firmly gripped with it, to use it occasionally, and it should frequently be used instead of the bit-rein to stop him on ordinary occasion; this will remind the horse of his subjection, and will accustom the rider or driver to the ready and accurate use of it in case of an emergency.

By attending to the foregoing directions, the most troublesome horse will, to a certainty, become quiet and manageable.

#### POUDRETTE—ITS EFFECT UPON TOBACCO PLANTS.

We are much obliged to Mr. Ruffin for the following communication. There is no one thing that oftener shortens the tobacco crop than the failure to obtain a good stand of plants. It will be recollected that a similar statement of the effect of poudrette on the plant bed was obtained from Dr. McCaw, of Powhatan, and published in the Planter, last year. The manufactured article undoubtedly costs too much for common purposes, but it is almost impossible to say how much the Planter could afford to give for the small quantity that would be required for his plant bed, if indeed it secures him a supply of vigorous and healthy plants. At any rate, a proper appreciation of its value will lead him to the scrupulous saving of the home production.

*Mr. Editor.*—Last spring, you requested all who had tried, or were then trying, the virtues of poudrette, of the manufacture of D. K. Minor, of New York, to give you the results of their respective experiments. Mine was upon a limited scale, but I give you its result, as it may tend to exonerate Mr. Minor from the censure which has been visited on him, and may promote more extended and beneficial trials. As you ask testimony, it is proper that I subscribe my name.

Last fall, I ordered, and received from New York seven barrels of Minor's poudrette, which I meant to use upon my plant beds. In all the month of January, I burned sixteen hundred yards of plant land, of the quality usually found in the forest of the southwest mountains—gravelly, dark, abounding in virgin mould, free from clay, and tolerably moist. It was burned too hard, and rather late. The weather was dry at the time of sowing the seed, and they were not well got in, in consequence. Immediately upon sowing, I divided each bed as equally as I could,

and on one half of each I sowed poudrette, at the rate of half a bushel to the hundred yards; leaving the balance for stable manure, which was afterwards applied. The whole was covered with brush, but so thinly put on, that the seed which came up first, all perished, and I feared I should have no plants. The beds around me were quite forward and flourishing, when mine were bare. At last they came up again, but as fast as they showed themselves, they were eaten down by the fly. At this stage, about the first of May, I again applied the poudrette to the whole in the same proportion as before. A shower shortly followed, and I cannot conceive a more rapid and healthy growth than my plants instantly took. They come on in full time for planting my whole crop of eighty thousand hills, and were by far the best plants I ever saw. Something is no doubt attributable to the thinness of the beds, but much more, I am persuaded, is due to the poudrette. I did not wait for these plants, but planted about half my crop of small, but early plants, from the luxuriant beds of a friend. The balance and the replanting my own supplied; and I would have found my advantage in waiting a week longer to plant the whole from them.

A barrel of poudrette, equal in size to a common flour barrel, weighs about as much as dirt. My supply, delivered at my landing on the Rivanna, cost about two dollars a barrel. This is evidently too costly to justify its application to common purposes. But my experience of its benefits on tobacco plants, of the economy in hauling it to a distance, and the still greater economy in weeding plants, manured with an article which does not contain the seeds of a single weed, induces me to think it cheap for this particular purpose at the price I gave.

#### CURING HAY.

Whilst the pen is in my hand, I will give you the result of an experiment in hay making, suggested to my mind by a communication in the first volume of Buel's Cultivator.

In cutting my late crop of clover hay, I put up a part of it in cocks as soon it was cut. It had not fallen, nor become crisp from the action of the sun. The rest was treated in the usual way. The interval between cutting and stacking was showery, and some of my hay was injured. The part which was cut and cocked up green stood the rain well, and was fine hay. It had cured in the cock. I was so well satisfied with this, that in cutting my timothy hay I pursued that plan throughout. I did not permit it to lie in swaths for a longer time than was necessary to allow a horse-rake to get room to work. As soon as that could go, it collected the hay, which was put into cocks by hands that followed, and was thus left to cure. In that way with eleven ordinary hands I cut and

got up in one day five or six acres of heavy timothy meadow. On ricking it, it proved to be as fine hay as I ever saw made in any other way; and my overseer, whose judgment about it is better than my own, thought it the finest he had ever seen, though he was at first very much opposed to the plan. It stood two showers.

This among other things may account for the advantages of the plan: the leaf is not parched as when exposed to the sun, but becomes wilted and lies flat over the clover or other hay, thus affording a sort of cover from sun and rain.

Respectfully, your obedient servant,

FRANK G. RUFFIN.

*Shadwell, Alabemarle, July 6, 1844.*

For the Southern Planter.

#### EMIGRATION.

*Mr. Editor,*—With the re-establishment of the monetary affairs of the country and the consequent ability to make sales of their property, the desire to emigrate to the West begins to manifest itself again amongst our people. Notwithstanding the repeated warnings and the repeated disappointments they have encountered, the demon of restlessness and the love of change urge men to exchange property here, which only needs the application of an improved husbandry to render them prosperous and independent, for all the hazard and all the privation that are attendant upon the life of an emigrant. If this infatuation injured only the subjects of it, it would not be so bad, but by every removal those that remain are deeply affected. We lose the society of good neighbors, of kindly friends, and in short, all the advantages and all the blessings of a dense population. I think something may be done to stay this tide of emigration by those who are determined to abide by "Old Virginia," and who believe that more can be made by improving an exhausted acre than by clearing and reclaiming a new one. The intended emigrant must sell before he can start, and nine times out of ten he finds a purchaser in one of his neighbors. Would it not be well for our farmers to agree amongst themselves to buy no more land, and thus bind these runaways to their homes. It has become the fashion of the day to subdue a prevailing evil by means of the powerful effect of association, and I propose to counteract this besetting and destructive love of extended domain, by the formation of an anti-land-acquiring society. But in sober truth, I was more than ever struck with the double impolicy of extending our farms by the expulsion of our neighbors, from a conversation that passed in my presence between two of my friends. Mr. L. and Mr. E. live upon adjoining estates, and started in the world under very similar circumstances. By a system of management, economy

and industry, Mr. L. has brought his farm to a high state of improvement, and has accumulated a money capital of three or four thousand dollars. Mr. E., on the contrary, by an entirely opposite course of conduct, has exhausted his land, and involved himself in debt. He is very desirous of selling and thinks he can do much better in the West. He offered his land to Mr. L. at a very low rate, and urged upon him the propriety of making this investment of his capital. It was the good sense of his reply with which I was struck. "It is," said he, "by great economy and by bestowing all the means I could save upon the improvement of my farm, that I have been enabled to accumulate a little sum of money. This sum is devoted to the further improvement of the land I already possess, and experience has thoroughly satisfied me that it is by far the best investment I can make of it. But suppose, instead of this, I devote it, as you would have me, to the purchase of your land; What is the consequence? I shall only be lending my assistance to deprive myself of a kind and useful neighbor, whilst I encumber myself with an extensive landed property, a considerable debt, and am totally without the means of improvement. No, Mr. E., take my advice; let your wife and children stay amongst those who love and honor them. Turn your attention to a more judicious system of husbandry—seek, in agricultural works and in agricultural newspapers, the most improved modes of cultivating the earth; use one half of the economy, and suffer one half of the privations to which you will be subjected in the West, and you will soon be, not only out of debt, but as I am now, with every thing smiling, happy and comfortable around you."

It is not only the advice but the example of Mr. L. that I commend to your readers.

Your obedient servant, S. H.  
*Louisa, July 10, 1844.*

From the Boston Cultivator.

#### DESTROYING LICE ON CATTLE.

*Messrs. Editors,*—About a year ago, if I rightly remember, I read in your paper an article on the means of destroying these troublesome insects, by applying a mixture of lime and ashes to the floor on which the cattle stand and rest. My cattle doubtless like all others, have ever been more or less infested with this hateful species of vermin. I have tried various expedients for their extermination, such as Scotch, or yellow snuff, lard, decoction of tobacco, &c., none of which have ever proved sufficiently adequate to effect the object intended.

Last fall when my cattle came to the barn, I resolved upon trying lime and ashes, as a preventive of lice amongst them. Accordingly I

mixed them in about equal quantities, and spread them upon my stable floors, directly under my cattle's forefeet. When what I had applied at first was exhausted, I then made another application of the same mixture and so continued to do during the winter.

As to the effect this practice has had in preventing lice amongst my cattle, I can candidly state that they were never more free from them, than they are this spring.

I will mention one fact in confirmation of the utility of this application for destroying lice.

In February last I purchased a pair of four year old cattle that were exceedingly lousy. I was particular to keep the floor upon which they stood well strown with these ingredients, and upon examining them several weeks after, I could not discover a solitary individual of the numerous host remaining.

The lime of which I made use, had lain open to the action of the atmosphere until it was reduced to a powder, or nearly so before using.

M.

**EDITORIAL REMARK.**—The above seems to be a very simple and effectual remedy, and it may be practised without the least injury to the cattle, which is not the case with some remedies used, such as mercurial ointments, a decoction of tobacco, oil, &c. In cold weather oil has a bad effect, as it keeps the hide moist for a long time, readily conducting off the animal heat and producing a chill. As vermin are so destructive to the peace, comfort and thrift of cattle, no pains should be spared in guarding against them and applying a remedy wherever they make their appearance.

#### ANIMAL IMPROVEMENT.

We listened to some very interesting remarks from Dr. LEE on this subject at an agricultural meeting in Albany, last spring, and made some notes of them which we intended for publication. If we understood the Doctor correctly, his idea was this: That the domestic animals were valued for certain functional properties that they possessed, as the cow for her property of secreting milk, the sheep for his wool producing ability, &c. These products are elaborated from the food consumed, and their elements should be sought in the food with which the animal is fed. The ox cannot elaborate muscle and fat from the same constituents which afford wool to the sheep. By a proper selection of food not only is a greater quantity of the constituents for the required product afforded, but an additional stimulus is constantly given to the particular organ, whereby its action is greatly improved and



developed: and this with judicious crossing the Doctor thinks must constitute the basis of animal improvement. But here he is in the columns of the American Agriculturist; let him speak for himself:

#### ORGANIC IMPROVEMENT OF DOMESTIC ANIMALS.

Sheep and other animals were subdued and domesticated long before their biped captors and masters were able to keep a record of their doings for the benefit of their posterity. Hence we know little of the original stock from which our domestic animals have descended, and less of the early treatment they received at the hands of our own progenitors. Nor is this information important. It concerns us mainly to understand how a change of food, temperature, and of all surrounding circumstances, will either *improve* or *deteriorate* the organic structure and natural functions, which transform for the practical farmer his cultivated plants, their seeds and roots, into wool, beef, pork, milk, lard, butter, and cheese. That there is a wide difference in the results obtained, by the operation of this living machinery in different animals, no observing man can doubt. Of two cows of equal weight, and consuming equal quantities of food precisely alike, one will elaborate for its owner eighteen quarts of milk in twenty-four hours, while the other can form but nine quarts in the same length of time. A pig, whose organization is apparently nearly perfect, will elaborate from a given amount of raw material, twice as much flesh and fat, as another whose respiratory and assimilating machinery are very defective. Experience and science alike demonstrate the truth of the remark that it takes fifty per cent. more food to produce a given amount of muscular strength and power of locomotion in one horse or ox, than is required in another. Animals that had a common parentage ten generations back, now possess not only widely different forms, but organic and constitutional peculiarities, of great importance to those that may become rich or poor, according to the well or ill management of their herds and flocks. Eminent success alone attends *skill* in the breeding and keeping of domestic animals. This valuable skill is acquired by close observation, and studying the uniform laws of nature that govern the growth, maturity, and decay of organic beings. The most important and material changes in the development of the organs of animals, and in the function of each organ, are made during the period that elapses from the first formation of the embryo, to the maturity of each living complex structure.

"As the twig is bent the tree's inclined."

The plasticity of young animals and plants,

VOL. IV.—26

and the extreme changes that may be wrought in their forms and habits are truly wonderful.—The human brain itself can be moulded in infancy into any shape to suit the whim or taste of a "Flat-Head" or a "Round-Head" Indian. Nor is there a single mental or physical function in the human system, that may not be either *improved* or *impaired* by the good or bad influences which may be brought to bear upon it.—The science of physiology is a noble science. It enables cultivated reason to trace results—the products of animal life, such as flesh, fat, milk, and wool—back to their known causes and elements.

I can hardly expect to give you even an outline of the organization and workings of this complex vital machinery. There are, however, a few cardinal points in this matter, which I will endeavor to make clear and intelligible.—One is, that no animal or plant can possibly transmute one simple elementary substance into another. If a hen be fed on food that is quite destitute of lime, the organs of her system can not form an eggshell, so if a child, calf, or colt, be kept on food that lacks phosphate of lime, its bones will be soft and cartilaginous. No other minerals can be changed into lime or phosphorus.

Animal fat is a compound made up of carbon, hydrogen, and oxygen; and no other simple elements can possibly make it. Lean meat and wool contain the same elements, with the addition of nitrogen, sulphur, and several other earthy ingredients in minute quantities.

Knowing that no animal can create anew one particle of matter, and that each compound product has its peculiar constituent elements; knowing also how much of those elements is contained in any article of food, we can judge of its fitness or unfitness to produce either bone, muscle, fat, milk, wool, or any other animal product. In other words, we can wisely adapt our *means* to the *ends* we have in view.

Suppose a farmer had one hundred hens in his poultry-yard, and he desired them to lay as many and perfect eggs as possible. Would it be an unreasonable prescription to say to him that "you must feed them liberally on food which contains not only lime, but all the elements of the contents of an eggshell in a concentrated form? Deny not the raw material, if you expect the bird to elaborate for your table, or for market, a large product of this article of human food."

Is it anything extraordinary that a race of cows, whose mothers for many generations have had their milk-forming organs largely developed by being fed on food well adapted to that end, should secrete far more milk from a given amount of raw material, than a race of wild cows, whose lacteal glands had been denied all the advantages that result from quietude, rich pasture, and regular dry milking?

A sheep consumes several pounds of food daily. Of this, at least eight ounces are composed of the constituents of wool. Now if the capillary organs of this animal transform only two per cent. of these elements into wool in twenty four hours, then in one hundred days the sheep will grow one pound of this valuable product. This will give a fleece which will weigh  $3\frac{6}{10}$  lbs. in 365 days. Is it not practicable so to improve the vital action of the wool-forming machinery of our twenty millions of sheep in this country, that this machinery shall transform *four* instead of *two* per cent. of the raw material of wool into that substance? That this organic machinery is perfect no one pretends; or that it has already been greatly improved, is not denied. The manufacture of wool out of its constituent elements, is a branch of science of great importance to the farmers of the United States. They possess an inexhaustible quantity of the raw material of wool, and enjoy every advantage for its profitable production. To develop the capillary organs of the sheep, the animal should have a warm, or rather a comfortable, well ventilated apartment in winter—should be kept quiet throughout the year; that is, it should not be compelled to travel too much to find its food. It should have the organs that form this animal product *at all times* stimulated to a preternatural action, by having the arteries that convey nourishment to these organs, preternaturally loaded with the elements of wool. A plant grows best in a soil rich in the elements of such plant. So too an animal, and especially a young animal, elaborates the most flesh and fat when its blood-vessels are best supplied with the elements of those products.

Clover, oats, turnips, beans, peas, and other leguminous plants, contain more of the constituents of wool than timothy, herdsgrass, potatoes, and corn. All animals should be fed regularly, and particular attention should be paid to their health and comfort. It is, perhaps, needless to say, that every improvement in the practical workings of all this living machinery can be transferred from parent to offspring by judicious breeding.

The action of the respiratory organs in all domestic animals has a material influence upon the formation of fat, muscle, milk, and wool.—The lungs never cease night nor day to expel more or less of the elements of animal food through the windpipe into the air, in the form of carbonic acid and vapor. The organization of some animals is so defective that they consume in this way a much larger quantity of the constituents of flesh, fat, milk, and wool, than is necessary or profitable. The more an animal exercises, the faster he breathes, and other things being equal, the poorer he becomes; because, instead of nourishing and supplying the waste in the system, the elements of the food escape

in a larger ratio from the assimilating organs. The food of animals consists essentially of carbon, hydrogen, oxygen, and nitrogen. The first escapes through the lungs, the second and third escape in vapor, perspiration and urine, and the last (nitrogen) also escapes by the kidneys.—Hence, a cow when driven twelve miles a day, never gives as much milk as she does when consuming the same amount of food and remaining quiet in a pasture or stall. It is an easy matter to enlarge or diminish the size of the blood-vessels that convey the elements of milk to the lacteal gland of the cow, or the vessels that convey the elements of wool to the capillary organs of the sheep. It is not difficult to increase both the size and strength of the muscles of a colt, or of a young bullock. Like the enlargement of the muscles in the arm of a blacksmith, *judicious exercise* must come to the aid of judicious keep.

D. LEE.

*Albany, April 30, 1844.*

From the Albany Cultivator.

#### CHARCOAL FOR PEACH TREES.

*Messrs. Editors,*—A friend of mine has just informed me of the success he has met with, by the application of charcoal to his peach trees; a few years ago he had some fine trees in his garden which invariably had wormy fruit; and the trees full of gum; when the fruit was about the size of marbles, he had the earth removed from each tree about two feet around and three inches deep, and filled up with charcoal; the result was that the fruit grew to a fine size free from worms; and every year since, the fruit has been good, and the trees became healthy and free from gum; while two trees left without the charcoal, continue to bear wormy fruit, and the trees unhealthy. As this will be in time for the readers of the Cultivator to make a trial this year, and should it prove as good with others as in this case, it will certainly be of great benefit to the fruit grower.

If farmers will plant their pumpkins, melons and other vines on land that brought corn the past year, they will never be troubled with the striped bug. This course has been practised here for many years, and *has always* proved successful, when vines planted on land that had any other crop, even vines the year previous, are destroyed by the bug.

H. R. ROBEX.

*Hopewell, Va., May 10, 1844.*

#### HINT TO CORN PLANTERS.

The advantages of *deep ploughing* in planting Indian corn, is well exhibited in the following article, first published more than twenty years

ago, and which can now be read with benefit by many.—*Mer. Journal.*

“Dr. Moore, of Maryland, who has written a treatise on agriculture, asserts, that agriculture is more followed and less understood, than any other mechanical branch in the United States. He says, if ground is cultivated in a proper manner, every person may plant two hills of corn for one he does now, on the same ground—and the corn will be equally as good, which is a double crop. He further says the general average depth of corn ground as broken up and planted is about three and a half or four inches, and that one week’s hot sun after the ground becomes droughty, will dry the ground and scorch the corn so as to stop its growth. But to plough up your ground eight inches deep, your corn will stand growing a three weeks drought, and if you plough twelve or fourteen inches deep, it will grow every day during a six or seven weeks drought.

“I have made an experiment, and I think with success, and have saved a large portion of the labor of deep ploughing, and gained some of its advantages. I break up and strike out my corn ground in the old usual way—the furrow I plant in, I run a single coulter ten or twelve inches deep in the centre of the furrow, and plant on that mark. When my corn is up, I run a bar-shear once round in each corn row, and make my coulter-plough follow in the same furrow as deep as formerly. Thus every corn row has three coulter furrows, fourteen or fifteen inches deep around the whole.

“The Doctor asserts, that corn roots run no deeper than you break and cultivate the ground and this gives pasture for the roots. With this small addition of labor in a corn crop, such a dry summer as last was, this plant will give a third, fourth or fifth more corn. Attention always ought to be paid in laying by corn the last ploughing, never to plough every row, but every other one, throughout the field in dry weather, then turn and plough up those left. But do not act the fool, and cut all the roots the same day, and stop the growth of your corn, as there is no doubt but one hundred thousand barrels of corn are destroyed every season by ploughing every row.”

#### SMUT.

It is astonishing how slowly the most valuable discoveries in agriculture make their way amongst the great mass of the farming community. We have heard great complaints this year of smutty wheat. Why should the farmer permit his hopes as well as his grain to be blighted by this pestilential fungus, when there is a preventive so sure and so well established

as the use of brine and lime? For the twentieth time we repeat, that numberless experiments, reported upon the most unquestionable authority, establish the fact, that if you will soak your seed wheat in a strong brine, and then, having spread it upon your barn floor, sift over it about one-twelfth of its bulk of freshly slacked lime, raking it in well, your crop will be freed from even the semblance of smut.

#### RECIPES.

A lady whose culinary abilities are well known to all her friends, has sent us the following recipes:

##### TURTLE SOUP AND CALF HEAD SOUP.

Your turtle must be cleaned and prepared for the soup the day before you make it. Let the meat lie in weak salt water all night; early in the morning put in on the fire, about two gallons of water to a moderate sized turtle. Let it boil steadily but very slowly about four hours. Then put two potatoes, two small onions, one turnip and one carrot, all cut up very small, (these should be put in a cloth,) and let them boil until you put in the thickening. A tea-spoonful of cloves and as much ground black pepper, if not strong, a small table-spoonful. A tea-spoonful cayenne pepper, a table-spoonful of salt and the same of sweet marjoram, summer savory and thyme. If this is not enough to your taste, add more, two middle sized nutmegs. Boil all these until the soup is reduced one-half; then take out the cloth of vegetables and the turtle, and pick the latter clean, cut it into pieces large enough to eat with your soup, and return it to the pot, and afterwards mix three or four table-spoonfuls of browned flour, with half a pound of butter; add this to the soup—let this be very smooth, or your soup will be covered with small black floating particles. Put two table-spoonfuls of catsup and one-half a pint of white wine. These last must be to your taste.

Make calf head soup exactly in the same way; this quantity of seasoning will serve for a large calf’s head: the brains must be tied up in a cloth and boiled in the soup, but not added until just before the last boil, before seasoning.

In making turtle soup the lower shell should be boiled with the soup. For calf head or turtle soup either, if the latter has no eggs, boil the yolks of two hen’s eggs very hard, mash them with a silver spoon in a little water, add flour sufficient to form a stiff paste; roll it the size of marbles, add them before the last boil; do not allow them to be in more than five minutes before going to the table.

With either soup have always forcemeat balls; to make which take a pound and a half

of veal not cooked, chop it fine, put a small quantity of beef, salt, some crumbs of bread, say half as much as meat—season the mixture highly with sage, sweet herbs and pepper, nutmeg and salt, roll the balls round and then flatten them and fry them in butter a light brown, and when the soup is ready to be served drop them in: either celery tops or parsley in small quantity is an improvement to the soup; they must be cut very small.

#### RECIPE FOR TOMATO CATSUP.

Put ripe tomatoes in a pot with only enough water to keep them from sticking to the bottom of the pot. When they have boiled sufficiently to split the skins and make their juice, strain through a sifter.

To one gallon of juice put two pounds of brown sugar, two table-spoonfuls of flour of mustard, a good handful of black pepper, (allspice and mace, if you wish, may be added in small quantities,) let it boil until it thickens. Just before you take it off pour in a quart of sharp vinegar and salt, to your taste.

#### GINGER BEER.

Lump sugar  $\frac{1}{2}$  a pound.  
 Cream of tartar  $\frac{1}{2}$  an ounce.  
 Bruised ginger 1 ounce.  
 Boiling water 1 gallon.  
 Ferment 24 hours with yeast.

#### MANURE.

It is well known that in a close stable, where there are a good many horses, there is a very pungent smell affecting the eyes and nose, more particularly when the stable is being cleaned out. This smell is occasioned by the flying off of ammonia, which is the essence and value of manure and which volatilizes or flies off at a very low temperature: even the warmth of the manure in a stable will send it off, and it goes off in great quantities by the common heat of the manure in a farm-yard whether thrown up in heaps or not. There is, however, a very cheap and simple remedy for this. Before you begin to clear out your stable, dissolve some common salt in water; if a four horse stable say four pounds of salt, dissolved in two buckets of water and poured through the nose of a watering pan over the stable floor an hour or so before you begin to move the manure, and the volatile salts of ammonia will become fixed salts from their having united with the muriatic acid of the common salt, and the soda thus liberated from the salt will quickly absorb carbonic acid, forming carbonate of soda, thus you will retain with your manure the ammonia that would otherwise fly away, and you have also a new and most important agent.—*N. E. Farmer.*

#### EDUCATION.

The following brief but beautiful passage occurs in a late article in Frazer's Magazine:

"Education does not commence with the alphabet. It begins with a mother's look—with a father's nod of approbation, or a sigh of reproof—with a sister's gentle pressure of the hand, or a brother's noble act of forbearance—with handfuls of flowers in green and daisy meadows—with birds' nests admired, but not touched—with creeping ants, and almost imperceptible emmets—with humming bees and glass beehives—with pleasant walks in shady lanes—and with thoughts directed in sweet and kindly tones and words, to nature, to beauty, to acts of benevolence, to deeds of virtue, and to the sense of all good, to God himself.

For the Southern Planter.

#### REAPING MACHINE.

*Mr. Editor,*—I saw in one of your back magazines, (March, I think,) an account of a "Reaping Machine," patented by Mr. M'Cormick. Can you mention in your next Planter whether this machine can be used on hilly, uneven, or stony ground, and with what success? I also read an advertisement of Mr. M'Cormick's in one of the Washington papers, in which he guarantees his machine to reap from fifteen to twenty acres per diem. Can you let me know the results of your experience in the above? as reaping season will soon be at hand, and oblige  
 AGRICOLA.

*New York, July 21, 1844.*

Experience is the best teacher, and the unanimous approbation of those who have thoroughly tested them has satisfied us of the efficiency and duration of M'Cormick's reaper. We confess we were a little afraid of this machine at first, and were rather inclined to give the preference to Hussey's. But all inference must yield to facts, and we are now satisfied from the testimony of some of the most judicious farmers in the State, that our fears were entirely groundless. It is only necessary to refer to the numerous certificates in the Whig and Enquirer from those who have used them, which are too long to be transferred to our columns, to satisfy us of the utility of this machine.

In answer to our correspondent, we have to say, that the machine can be successfully used upon hilly, uneven, or stony ground, provided the hills are not too steep, and the stones too large. The knife cuts a swath of about six feet in width; any obstacle projecting more than nine inches from the surface would present an impe-

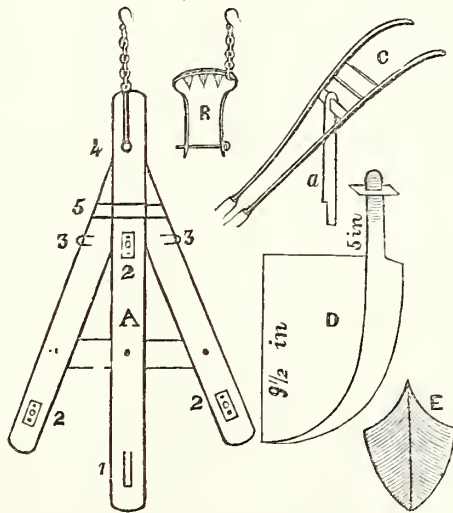
diment to its passage, and would have to be avoided. On a hill side where a cart can travel easily the machine will work well. We have it from the best authority, that this machine will cut from fifteen to twenty aeres a day with great ease; its great merit, however, is not only in the quantity of labor performed, but in the cleanness of cut. In this respect it is so far superior to the old mode of cradling, that many have

reckoned that the saving in a large crop would more than repay the expense of the machine.

Since the receipt of the letter above we have seen some very strong testimonials from farmers in New York to whom Mr. M'Cormick has been exhibiting it. In fact, it wins golden opinions wherever it goes, and we sincerely hope that the ingenious and enterprising inventor may pocket a great many of them.

## H A R R O W .

[Fig. No. 3.]



In an old number of the Cultivator we find the following description of an implement, that we know by experience to be a very useful one:

J. BUEL:

*Dear Sir,*—The drag or harrow, here described, is the best implement for the cornfield, market garden and “truckpatch,” I have ever seen. It is preferred to and takes the place of the cultivator, where both are known, the superiority consisting mainly in the circumstance of its getting deeper into the ground and leaving it in a situation much less likely to *bake*. I obtained a drawing and description from my brother in Maryland for the benefit of this State; a copy is annexed for the benefit of mankind.

Yours, with much regard,

G. FITZHUGH.

Madison, Va., Jan. 1, 1839.

## DESCRIPTION.

The frame is made of good oak timber, 3 inches broad on top, by  $3\frac{1}{2}$  inches deep. The

middle piece is 3 feet 2 inches long—the clevis hole seen at 4 is  $4\frac{1}{2}$  inches from the end; the front tooth in the same piece is  $10\frac{1}{2}$  inches from the end, and seen at 2 in a square long plate with a round hole for the neck of the tooth, to come through; at  $2\frac{1}{2}$  inches from the hind end of same piece is a vertical mortise,  $2\frac{1}{2}$  inches long and 1 inch broad, for a post to support the handles—the post is made of strong timber  $2\frac{1}{2}$  by 3 inches square, and is  $19\frac{1}{2}$  inches long—it has a tenon  $3\frac{3}{4}$  long by  $2\frac{1}{4}$  broad and 1 inch thick, to fit into the mortise at 1—at 11 inches from the shoulder of the post, commences another mortise (in a different direction of the tenon)  $2\frac{3}{8}$  inches deep and 1 inch wide, into which is to be fitted a cross to support the handles, tapered and rounded to go into the handles, which fit on both sides of the cross, with  $\frac{7}{8}$  hole about 2 feet 3 inches from their lower ends, and extend back about the same distance, having a round behind the cross to confine them together, at 1 foot 5 inches from the upper ends, and are

1 foot 6 inches wide at the round. The side pieces are 2 feet 6 inches long, and join the middle piece opposite the clevis hole, and are united to the centre piece by a slat  $3\frac{1}{2}$  inches broad at one end, and 3 inches the other, 1 inch thick and 18 inches long, the mortise for it to commence  $7\frac{1}{4}$  inches from ends of side pieces. The teeth are placed in these at the distance of  $5\frac{1}{2}$  inches from the ends as in the number 2.—The teeth are made of best bar iron  $1\frac{1}{8}$  by  $\frac{7}{8}$  inches—the necks are 5 inches long, and are at the shoulder  $1\frac{1}{4}$  inches by  $\frac{7}{8}$  square, and are tapered and rounded at the top for a strong screw; in the side pieces they must be placed obliquely, that their tracks may be parallel with the middle. They must have strong plates for the bottom, say  $\frac{1}{4}$  inch thick,  $2\frac{1}{4}$  broad,  $4\frac{1}{2}$  long, and well nailed on; the top plates much lighter, and the holes for the teeth in the bottom plates must fit the necks well, and of course must be cut into the sides obliquely to give the proper direction as before intimated—the shoulders of the teeth must fit well; with a cold punch, indent the numbers respectively behind the shoulder of each tooth, and on each plate and nut, to distinguish their places.

For the Southern Planter.

*Boydton, July 4, 1844.*

At a joint meeting of the two Agricultural Clubs of Mecklenburg county, held this day, pursuant to previous arrangement, on motion of Mr. Towns, A. C. Morton, Esq. was called to the Chair, and H. E. Lockett appointed Secretary.

After the meeting was duly organized, the Clubs proceeded to the Court House, where a considerable audience, composed principally of the farmers of the county, was in attendance. The Declaration of Independence was read by H. E. Lockett, and an address, distinguished alike for its force of argument, its beauty of composition, and its practical information on agriculture, was delivered by Mr. Charles T. Botts, the Editor of the Southern Planter, who was present in accordance with an invitation from the two Clubs.

Whereupon, it was unanimously

*Resolved*, That the thanks of this meeting be tendered to Mr. Botts for the very able, instructive, and interesting address which he has delivered.

*Resolved, also*, That this meeting recommend the Southern Planter, edited by C. T. Botts, Esq. to the agriculturists of Mecklenburg, as a work well worthy, for its cheapness, its intrinsic merit, and the locality where it is published, of the patronage of the Clubs, as well as the public generally.

*Resolved, further*, That Charles T. Botts, Esq.

be elected an Honorary Member of the two Clubs of Mecklenburg.

Whereupon, Dr. Jones and Dr. Venable were appointed a committee to wait upon Mr. Botts and inform him of his election, and that he is invited to attend the annual meetings of the Clubs.

On motion,

*Resolved*, That Dr. Jones, H. E. Lockett, Dr. Venable, and Richard Boyd, Esq., be appointed a committee to examine the books of the two Clubs, and report to A. C. Morton, Esq., the President of this meeting, such matter as to them may seem of general interest, and that he be authorized to condense, and report such to the Southern Planter for publication.

On motion,

*Resolved*, That H. H. Burwell, Esq. be requested to read the Declaration of American Independence, and the Hon. Wm. O. Goode to deliver an address on agriculture at the next annual meeting of the Clubs of Mecklenburg.

On motion,

*Resolved*, That the Agricultural Clubs of Mecklenburg will hold their next annual meeting in Boydton, on the 4th day of July, 1845, and that the Corresponding Secretaries of the Clubs be required to give sufficient notice, that the ladies, **ESPECIALLY**, and the public generally be invited to attend.

On motion,

*Resolved*, That the proceedings of this meeting be sent to the Editor of the Southern Planter, with the request that he publish them.

On motion,

*Resolved*, That this meeting do now adjourn.

A. C. MORTON, *President*.

HENRY E. LOCKETT, *Secretary*.

#### REPORT OF THE COMMISSIONER OF PATENTS.

We will make some extracts from this report and accompany them with such comments as we may deem pertinent.

#### DITCHING.

Mr. Ellsworth says:

"By a valuable machine, with ten yoke of oxen and five hands, a ditch of suitable depth for draining lands, (fourteen inches deep, and twenty-eight inches wide at the top,) ten miles may be excavated in one day, at an expense, by contract, of not more than three cents per rod. A larger machine, with a greater number of oxen, will excavate a ditch three feet deep. The great importance of such an instrument on the prairies of the West will at once be seen and acknowledged."

There are two or three varieties of this ma-

chine; one of them, that of Mr. Schermerhorn, was described in an early number of the Planter. All we have seen have been costly and complicated, and however adapted they may be to the "prairies of the West," they are certainly unsuited to any but a loose, free soil, entirely clear of roots and stones.

#### WHEAT.

We select the following paragraph from a long and interesting report upon the wheat crop, as particularly worthy of attention:

"A new variety of wheat, which has been very highly recommended, is the improved flint. Some of this has been obtained from the proprietor, General Harmon, of Wheatland, New York, and distributed to the members of the national legislature and various distinguished agriculturists, by which means it will undoubtedly be tried very extensively hereafter throughout the whole country. Gen. Harmon's account of it is as follows: 'The improved flint wheat has been improved from the old flint, by selecting the purest examples, and sowing them on sandy and gravelly limestone land, so that the berry is now larger and whiter, and the bran or hull very thin; the heads are longer; and the straw too is stiffer, and not as subject to lodge as formerly. This is the most valuable variety grown in this section of country. It bears a good yield, producing a beautiful berry, weighing 64 lbs. to the bushel, and producing more superfine flour to the bushel than any other variety I am acquainted with. It is not affected by the Hessian fly as much as many other varieties.' The same gentleman has paid very considerable attention to the culture of different varieties, and makes a remark which deserves consideration, 'The greatest objection to new varieties from warmer latitudes, is, that they are not hung to stand our winter. I have sown the white May Virginia for five years; the first two years I was pleased with it; since then, it has been failing; it has not withstood the winters well, and the heads are growing shorter, and the berry more red.' He also thus speaks of his mode of culture: 'Thirty years ago we were in the habit of ploughing in the most of our wheat on smooth land; we used the common two-horse plough; but we became satisfied that some of the seed was covered too deep; the plough was given up, and the harrow has been used since. A few years since, I built me a three-cornered harrow, and, instead of teeth, I put in the common cultivator teeth, which I have used on my summer fallows and for covering my wheat; the last time in going over it, I go north and south. This leaves the land a little ridgy and protected from the cold north-west winds, which are severe here in the month of March after the snow

is off; when the roller is used after the harrow, it has been more killed out; and when the soil is made very fine, it is more liable to be winter killed. The common horse ploughs bury the seed too deep; the lately constructed quadruple plough answers very well.'"

#### PROPER DEPTH OF SEED.

"As the result of some experiments respecting grain of different kinds—wheat, rye, barley and oats—in Germany, it is said that 'from two-thirds to three-fourths of the grain plants had their root stalk only one inch under ground, and exactly these produced the most stalks; one-fourth of them had their roots only  $1\frac{1}{2}$  inch deep, and had only half as many stalks as the first; at 2 inches deep, there were only 4 in 100; and at  $2\frac{1}{2}$  inches deep, only 9 in 1,000; but only one of them produced stalks, while in the first rye and wheat showed only  $2\frac{3}{4}$  to  $4\frac{1}{2}$  stalks—Winter wheat at 1 inch gave 765 root-stalks out of 1,000 as remaining in the earth, of which  $3\frac{1}{4}$  produced stalks; at 1 to  $1\frac{1}{2}$  inch, of 1,000, gave 215 root-stalks, of which  $2\frac{1}{8}$  produced stalks; at 2 inches, only 17 root-stalks of 1,000, of which only 1 produced stalks. From this, it is clear that shallow sowing, if the seed is only so far covered as to sprout, and the germ is protected from immediate contact with the air, is preferable to laying the seed deep, because it springs up quicker, and acquires a stronger growth, and has hardier plants.' 'The climate and period of sowing, as well as the weather, will of course be considered in determining the depth. The warmer, dryer, and especially the more windy the climate, the deeper (other things being equal) the seed must be laid. Wet and cold weather requires a shallow sowing; a dry and hot season a deeper burying up of the seed.' 'A shallow sowing is one which covers up the seed only half an inch thick; a moderately deep sowing,  $1\frac{1}{2}$  inch thick; and if from  $1\frac{1}{2}$  inch to 3 inches in depth, it is called deep sowing.' The choice of seed is very important; and the remark may be repeated here, made in the last report, that the grain which is most suitable for nutritious bread, on account of containing the largest portion of gluten, is not the best for the seed. The neglect to observe this may have sometimes contributed to influence the crop. It is also well ascertained that grain threshed by threshing machines yields seed far less suitable, on account of its being broken, than that threshed by the hand-flail. The amount thus obtained too from the sheaf is supposed to be one-third less.\*"

#### RUST.

On this subject we have the following:

"The question as to the best methods of pre-

\* The machines which induced this estimate must have been of a character very inferior to those used in this country.—ED. PLANTER.

venting the diseases and attacks to which the wheat crop is exposed, is one of deep interest to the agricultural community; and some suggestions on this subject may not be inappropriately subjoined to the account of this crop. The time when the field is struck with rust, seems to be just at the time of ripening. A remarkable fact on this subject is stated in a report to the New Jersey Agricultural Society.—An extraordinary field of wheat, supposed to be out of danger, on a hot day became drenched by a sudden shower, which came on between one and three o'clock, P. M. All was still; and on the passing away of the shower, the sun came out intensely hot. The owner went into his field to examine his wheat, which he found much pressed down by the shower: he immediately perceived a continued ticking, or snapping noise, in every direction. The straw was fine and bright; but, on examining it, he found it bursting in short slits one-quarter of an inch long, and the sap exuding from it. A day or two after, the whole field was darkened with rust, and the wheat nearly ruined. Another instance of the same kind is also related. The conclusion stated is—that the loss of the sap, running out and becoming dried on the straw, occasioned the rust.

“Mildew and rust are said to be more common now than before the Hessian fly made its appearance. ‘Previous to that time, the wheat was sown the last of August and the first of September, tillered largely, obtained great strength of roots, and was but little injured by winter frosts; the effect of which was to produce strong bright straw, with but few leaves; the consequence of which is but little mildew and rust.’

“To avoid the fly, manuring high at seed-time and sowing late was resorted to. This was attended by mildew and rust. Being sown so late, the plants had no time to tiller, or multiply and strengthen their roots and stalks; of course, the winter weakened and thinned the plants, which made the wheat still later in the season; and, when highly manured, the straw was full of leaves, very succulent, usually mildewed, and almost rusted. ‘The means of prevention are—first, a good dry, loamy soil, well prepared by cultivation, and not too recently manured, that by cultivation there may be a good assimilation of manure to the soil: the more complete, the better. Cover the seed about two inches deep, either with drill or plough, that it may have good hold of the soil, and not be thrown out by winter frosts.’ It is also said the French chemists, having witnessed the blighting of human food, have suggested the use of charcoal, to absorb the excess of the ammoniacal and other salts, which, taken with the plant in excess, during the warm showers, when the berry is growing, cause the stalk to burst open,

its juices to exude, and the seed to shrink. The result is stated to have been satisfactory. The mode of using the charcoal, as suggested, is by strewing it, well crushed, and as soon as possible, over the land; and that it be well moistened with soft water, by means of a watering-cart. Ashes have likewise been recommended by Liebig and others. Some suppose they, or some alkali, are necessary to dissolve the silicious substances, to furnish strength to the stalk. Liebig supposes it to furnish a silicate of potash—an important ingredient in the growth of wheat.—Some soils, peculiarly free from rust, it is said, are supplied with unusual quantities of potash. It has also been recommended, as a means of securing a good crop, notwithstanding rust, when the plants appear thin on the ground, in the spring, to sow spring wheat among the fall wheat. This plan has been resorted to with good success in Canada.

“Bone manure is likewise mentioned as very useful for grain, as bone is said to contain many valuable principles, such as fat, gelatine, carbonate and phosphate of lime. A striking experiment in confirmation of this is mentioned. The distinguished Berzelius, in 1817, is said to have analyzed a soil which had yielded crops of grain, from time immemorial, without manure. It was found to contain small fragments of bone; and after it had been boiled a long time in water, afforded a solution which yielded a precipitate to the infusion of galls. From this result, he conjectured that the ground had once been a field of battle.”

#### SMUT.

From amongst several expedients to prevent the wheat from *smutting*, we copy the following which we know to be efficacious:

“The wheat, after being thoroughly washed, to be soaked ten or twelve hours in salt water, as strong as it can be made. It is further said that no injury will result if it lies in the brine for several days, provided it be in a cool place. After thus soaking it, let it be limed. Another person recommends that the seeds, when placed in the brine, be stirred up thoroughly, so that the light seeds may rise to the surface, and be skimmed off; afterwards, that the brine be drained into a tub, and the seed thinly spread on the floor, and sifted with quicklime, at the rate of one gallon to a bushel; and, after carefully stirring the lime through the seed a few times, it is allowed to remain a few hours, and then sown. The seed which underwent the perfect cleaning gave a return of pure wheat; and that which was sown in its natural state was infected with smut, and had a mixture also of chaff. In a Northumberland report on agriculture, it is stated that Mr. Culley, who grew annually from 400 to 600 acres of wheat, had



but one instance of smut in forty years, and this was when the wheat was not steeped. Another experiment was tried on seed, in which were a few balls of smut—one-third being steeped in chamber lye, and limed; one-third steeped in the same, and not limed; and the remainder without steeping or liming; and the result was, that the seed pickled and limed, and that pickled and not limed, were free from smut, but the other had smutty ears in abundance. Another experiment was tried, by taking a peck of very smutty wheat, of which one-half was sown in its natural state, the other half washed as clean as possible, in three waters, soaked two hours in brine strong enough to bear an egg, and dashed with lime: the result was, two-thirds of the unwashed was smutty, but of the pickled and limed seed there was a full crop, without a single ear of smut. A similar experiment, somewhat varied, is the following: Of four sacks of smutty wheat, one sack was soaked in strong brine only; one prepared with lime only; one was soaked in strong brine, and then lay in lime all night; and the fourth was sown without anything: the result was, where brine only was used, now and then there was a smutty ear, but not many; where lime only was used, there was about the same quantity of smut; where lime and brine were used, not a single smutty ear could be found; and where nothing was used, it was a mass of smut. In another experiment, however, mentioned in the Southern Planter, wheat sated at the rate of a quart of salt to a bushel succeeded effectually in preventing smut."

#### THE VALLEY FARMER.

We welcome to our list of exchanges with fraternal affection this younger son of the Old Dominion. The Valley Farmer has just been ushered into existence at Winchester, Virginia, and is a very promising bantling of four pages, that promises to show his face to the world once every week, for fifty cents a year. This is our first acquaintance with Mr. Bentley, the Editor, but the manner in which his first number is gotten up is sufficient to inspire us with great confidence in his ability to fill the delicate, peculiar, and responsible station of Editor of an agricultural paper. We will take the liberty of an elder brother to say to him, that if he will devote his columns to short practical statements, eschewing all the long-winded essays that will be poked upon him by *learned* farmers, that buy every thing and have nothing to sell, he will meet with a generous support, not only in the Valley, but in Eastern and Western Virginia too.

VOL. IV.—27

We are self-constituted agents for the "Valley Farmer." What club of twenty will send us a ten dollar note for the Editor?

#### STRAWBERRIES.

One of our correspondents a short time since wished us to publish something further on the strawberry culture. The following from the Farmers' Cabinet by S. D. Martin is beautifully condensed and explicit:

"I noticed a piece in a late number of your paper upon the cultivation of strawberries, in which the writer appears to doubt whether there are male and female plants. It is known to botanists that all the plants of strawberries have both male and female organs upon each flower. But upon one plant the male organs will so predominate that it will rarely bear any fruit; this for practical purposes, I call the male plant. It is easily distinguished—is a larger, stronger plant; has larger and rougher flowers than the other; all the runners from it produce the same kind of plants, with the like kind of flowers.—The male plant being stronger and not reduced by bearing, spreads rapidly over the ground and smothers the bearing plants, and the strawberry bed becomes barren. Where strawberry beds are mixed in this way, with barren and productive plants, it can certainly be told when they are in bloom what parts of the bed will bear. *Let those who would have productive strawberry beds, not neglect to set out a majority of female plants,* whatever may be said by botanists and horticulturists to the contrary. One male to a dozen females will be sufficient. Mr. Longworth, of Cincinnati, I think, first called the attention of the public to the above facts. I have known them for about twenty years, and have had productive beds. I have seen beds where a single female flower could not be found: and in the season for fruit, twenty strawberries could not be found upon a rod of ground. I had four different kinds of strawberries brought from your city some years ago, and every plant of each kind was a male plant; consequently they have never produced any fruit worth speaking of."

#### WHEAT.—RED MAY AND MEDITERRANEAN.

Mr. W. B. Sydnor, of Hanover, resolved to test the value of these two rival wheats. Accordingly he sowed two lots of about five acres each of equal quality and similar in every respect, the one with the Red May and the other with the Mediterranean. The former yielded seventeen and the latter twenty bushels to the acre. Mr. Sydnor did not observe any superior invulnerability to the fly or rust upon the part of the Mediterranean. On the contrary, they

were both slightly affected by the fly as well as the rust. His next object was to ascertain the flour making qualities of the two. For this purpose he sent to Mr. Govan's mill five bushels, by measurement, of each. The Red May weighed 317 lbs., the Mediterranean 308 lbs.—From the Red May he received 199 lbs. of flour of the first quality, and 28 lbs. second quality. From the Mediterranean he got 173 lbs. of the first and 32 lbs. of the second quality.

From this statement it would appear that the five measured bushels of Red May, yielded 26 lbs. more of good flour than an equal quantity of Mediterranean—this at  $2\frac{1}{2}$  cents a pound, would amount to 65 cents, or 13 cents a bushel. Against this we must offset the 4 lbs. excess of second quality in favor of the Mediterranean, which may be worth  $1\frac{1}{2}$  cents a pound: this would leave a clear difference in favor of the Red May of nearly twelve cents a bushel. But this, as Mr. Sydnor remarks, is the miller's and not the farmer's business. The Mediterranean is undoubtedly the most productive wheat, and as long as he can get the same price for it per bushel, he is determined to make it constitute a large portion of his crop.

From the American Agriculturist.

#### CULTURE OF ASPARAGUS.

Since the Spanish method of cultivating asparagus by the seashore has become known in England, a complete change has taken place in the manner of growing it there, salt being added now in moderate quantities to the manure used to enrich the beds; it is also spread broadcast upon them, at the rate of one to three pounds per square yard, after forking them over in the spring. This makes it much more palatable and tender. The month of April in this climate, as soon after the frost is well out of the ground, is the best time to apply the salt dressing to the beds. A compost of horse manure, mixed with leaves and vegetable mould from the woods, together with a little charcoal, is one of the best manures we ever made use of for enriching the asparagus bed.

Visiting Dr. King's fine farm at Perth Amboy, last summer, we were walking with him one morning along its boundaries on the bay, when within a few yards of the water on a slight ridge of sand, which was subject to be wet by the salt spray, and inundated by a high tide, Dr. King pointed out to us a natural asparagus bed; and although it was late in the season for this vegetable, and most of this before us too much grown for good cuttings, upon our

mentioning to him the Spanish method of cultivating it, he directed some of this to be cut and cooked for dinner. To our surprise, notwithstanding it was so old, it proved very delicate and palatable, and completely satisfied us that its superior taste was owing to the salt dressing it received from the sea water. Gardeners, in the interior of the country, will do well to try the experiment here recommended with salt; it will cost but a trifle, and do no harm if it produces no good. We scarcely recollect eating delicate asparagus in the valley of the Ohio; it was generally of large growth, tough, and bitter, and none that we ever tasted at the West, did we find to possess the peculiar flavor of that growing naturally at Dr. King's.

#### OUR FRIENDS.

We should be wanting in common courtesy if we did not thank our friends for their successful exertions to increase our subscription list.—The many kind and flattering expressions with which they have accompanied the lists sent in, have a hundred fold enhanced their value. One gentleman has sent us a list of twenty, another of eighteen, and so on, until altogether they have added about five hundred subscribers to our book, within the last sixty days. For this increase we know that we are solely indebted to the exertions of the best and kindest friends that ever came to the support of a paper. We are now so arranging our domestic concerns as to enable us to spend the greater part of our time hereafter in the midst of those scenes it is our business to describe. The hospitality of Virginia renders such a life a most agreeable, even if it should not prove a very profitable, one.

#### TREATMENT OF ANIMALS.

We give the following valuable suggestions on the authority of the celebrated Denton Offutt, and recommend them to the attention of gentlemen engaged in rearing stock:

##### TO MAKE GENTLE COWS.

First halter them with a strong rope to a suitable place, then commence salting and feeding them from the hand. Afterwards rub them all over at different times, for three days, feeding and watering them three times a day. Do not feed them high, but keep them always ready to receive food and water. Rub them every time you feed. Do not strike them one blow, as that will make them fearful; nor will cattle milk kindly that are beaten or roughly used.

The above treatment will make the worst cows gentle. A little attention to calves, when

very young, will make them ever after manageable. He says, and we subscribe to the doctrine: "Remove fear and give confidence, to make gentle horses and cattle."

#### TO TRAIN A HORSE TO STAND FIRE-ARMS.

First flash the gun before the horse; then rub him in the face the way of the hair, and let him smell the powder; and repeat it until he becomes gentle. If very bad, put him in a strong stall or pen, and fire before him and all around him, until he is free from fear.

So with an umbrella. Go to him with it shut; then rub him in the face with the umbrella, still at a little distance. Do this four or five times. Then get on him, raise it, and hold it as high as possible; ride him about until he is used to it—but not in wind or rain. Repeat this the next day, and by these means he will soon be safe.

#### TO BREAK A HORSE OR OX FROM THE HABIT OF LYING DOWN IN THE CEAR.

Tie him down with a rope, so that he cannot get up for ten hours. Then, when he gets up, work him for one hour. Give him water from your hand, and feed him, as this tends to make him like you—removing fear and restoring confidence.

If your horse has been "balked," as it is termed, and will not pull, place him in a good team, and when on smooth ground, stop the team, and, at the word, touch him up several times. In a short time he will pull kindly. If the horse has been whipped, be kind, and be sure not to touch him behind, but on the face and legs.

*Mississippi Valley Farmer.*

#### ALMANAC OF THE AMERICAN AGRICULTURIST.

We have received from the Editor, Mr. A. B. Allen, a copy of the American Agricultural Almanac for 1845. It is offered for 6¼ cents single—\$4 per hundred—\$25 per thousand. In addition to the usual statistics, which are very full and complete, it contains a great variety of agricultural information making it emphatically *the* almanac for the farmer.

From the Farmers' Cabinet.

#### FOOD FOR CATTLE.

At this time, when the correct principles of farming and feeding, as ascertained by chemical analysis, are a subject of general inquiry, I have thought the following article on "Food for Cattle," would be interesting to the readers of the Cabinet. It appears to me that a far greater value has been attached to some esculents containing a very large portion of water, such as

turnips, beets, carrots, potatoes, &c., than they deserve; whilst others, in which the proportions of organic matter are very great, such as peas, beans, oats, bailey, wheat-bran, &c., have been too much neglected. It is quite contrary to the received opinion, that 100 lbs. of the skin of wheat,—bran—is as valuable for cattle food, as 100 lbs. of almost any article that can be given to them. But this may account for the observation that we have often heard made, that "millers' horses and hogs are always fat," as they are generally fed liberally on wheat offal.

J. L.

*Milverton, First month 12th, 1844.*

Extract from Dr. Playfair's Lecture, delivered to the members of the Royal Agricultural Society, in December last:

The food of cattle is of two kinds, azotized and unazotized, with or without nitrogen. The following table gives the analysis of various kinds of food of cattle in their fresh state:

	Water.	Org. Matters.	Ashes.
100 lbs. Peas,	16	80½	3¼
100 lbs. Beans,	14	82½	3½
100 lbs. Lentils,	16	81	3
100 lbs. Oats,	18	79	3
100 lbs. Oat-meal,	9	89	2
100 lbs. Barley-meal,	15½	82½	2
100 lbs. Hay,	16	76½	7½
100 lbs. Wheat-straw,	18	70	3
100 lbs. Turnips,	89	10	1
100 lbs. Swedes,	85	14	1
100 lbs. Mangold-wurtzel,	89	10	1
100 lbs. White carrot,	87	12	1
100 lbs. Potatoes,	72	27	1
100 lbs. Red beet,	89	10	1
100 lbs. Linseed-cake,	17	75½	7½
100 lbs. Bran,	14½	80½	5

A glance at this table would enable a person to estimate the value of the articles as diet.—Thus every 100 tons of turnips contained 90 tons of water. But the value of inorganic matters which these foods contained, differed. Thus Mr. Rham states, that 100 pounds of hay were equal to 339 lbs. of mangold-wurtzel. It would be seen that that quantity of hay contained 76 lbs. of organic matter, whilst the mangold-wurtzel contained only 34 lbs.

One result on feeding animals on foods containing much water is, that the water abstracts from the animal a large quantity of heat, for the purpose of bringing it up to the temperature of the body, and in this way a loss of material took place. The mode proposed by Sir Humphrey Davy, of ascertaining the nutritive properties of plants, by mechanically separating the gluten, is unsusceptible of accuracy. The more accurate way is, to ascertain the quantity of nitrogen, which being multiplied by 6.2, will give the quantity of albumen contained in any given specimen of food.

The following table shows the equivalent value of several kinds of food, with reference to

the formation of muscle and fat, the albumen indicating the muscle-forming principle:

	Albumen.	Unazotized Matter.
100 lbs. Flesh,	25	0
100 lbs. Blood,	20	0
100 lbs. Peas,	22	51½
100 lbs. Beans,	31	52
100 lbs. Lentils,	33	48
100 lbs. Potatoes,	2	24½
100 lbs. Oats,	10½	68
100 lbs. Barley-meal,	14	68
100 lbs. Hay,	8	68½
100 lbs. Turnips,	1	9
100 lbs. Carrots,	2	10
100 lbs. Red beet,	1½	8½

The analyses in this table, are partly the result of Dr. Playfair's, and Boussingault's analyses. The albumen series indicates the flesh-forming principles, and the unazotized series indicates the fat-forming principles. By comparing this table with the former, it will be seen which foods contain not only the greatest quantity of organic matter, but what proportion of this organic matter is nutritive, and which is fattening, or that which furnishes combustible material. In cold weather, these foods be given which contain the larger proportion of unazotized matters, in order to sustain the heat of the body. Thus it will be seen, that potatoes are good for fattening, but bad for fleshening. Linseed cake contains a great deal of fattening matter, and but little nutritive matter; hence barley-meal, which contains a good deal of albumen, may be advantageously mixed with it. Dumas, a French chemist, states that the principles of fat exist in vegetables, as in hay and maize; and that, like albumen, it is deposited in the tissues unchanged. But Liebig regards fat as transformed sugar, starch, gum, &c., which has undergone a change in the process of digestion. This is why linseed cake is fattening; all the oil is squeezed out of the seed, but the seed-coat—which contains a great deal of gum and the starch of the seed—is left, and these are fattening principles.

The oxygen, introduced by respiration into the lungs, is destined for the destruction of carbonaceous matter; but there is a provision made for taking it into the stomach with the food, and this is done by the saliva. The saliva is always full of bubbles, which are air bubbles, and carry the oxygen of the atmosphere into the stomach with the food. The object of rumination in animals, is the more perfect mixing of the food with the oxygen of the air. This is why chaff should not be cut so short for ruminating, as for non-ruminating animals, as the shorter the chaff is, the less it is ruminated, and the less oxygen it gets.—*Mark Lane Express*.

RING WORM may be, in most cases, simply cured by scratching around the outer surface

with the point of a sharp needle. The disease will not pass the line, if the skin is thus cut.

*Selected.*

#### SEED WHEAT.

We received last year from the Patent Office a variety of seeds, which we distributed amongst our friends. Mr. George Woodfin got a paper of wheat, marked "Kloss' White Blue Stem," and he brought us a few days since a sample of the product. It is certainly one of the largest, whitest, and plumpest grains we ever saw. Mr. Woodfin considers it much more productive than the Red May, which he sowed at the same time, it being inclined to tiller more, and the head being longer and fuller. Mr. Woodfin is very desirous to procure several bushels of the seed, and through the politeness of the Agent at the Patent Office (in the absence of Mr. Ellsworth) we have probably put him on the track of obtaining it.

The sample at the office is for distribution.

#### CHICKEN MANUFACTORY.

Nature is getting superfluous. We rather think she will soon be voted out of fashion and dispensed with. There is a chap just over our publication office hatching chickens in a big box, fifty a day, having a thousand eggs always doing. The trouble of attending them is slight, the heat costs very little, and the chickens crack their several shells and walk up to their dough and water like wood-choppers to dinner or sailors to their grog. They are clean, strong and lively, grow fast and rarely die, (not being dragged through the grass;) and whoever has a hatching machine can have "spring chickens" every week in the year, and at small expense. If we could only invent a machine to lay eggs now, hens would be done with.—*New York Tribune*.

#### AGRICULTURAL EXHIBITION.

Great preparations are making for the exhibition of the New York State Agricultural Society, which is to be held at Poughkeepsie, on the 18th of September next. Of all the exhibitions that we have ever witnessed, in the North or the South, none begin to compare with those of the New York Society. It seems to be understood that the one to be held this fall is to eclipse all its predecessors.

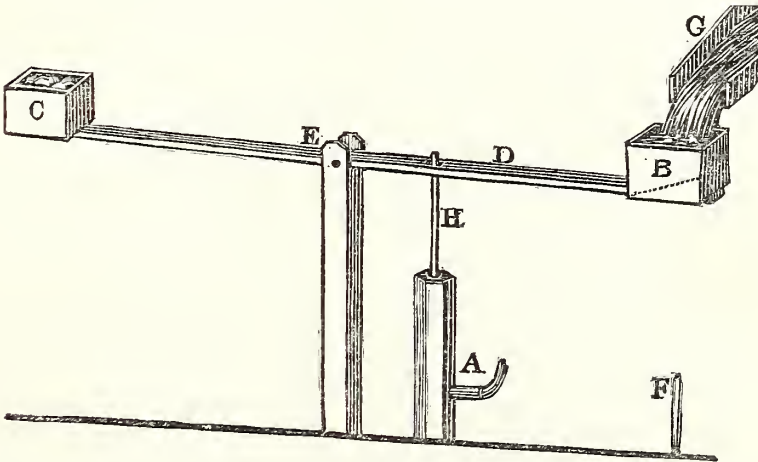
We would sincerely recommend any farmer who can spare the time and the means, to visit

this exhibition. In addition to the pleasure to be derived from such a trip, he must be a very great man or a very sorry one, if the information he obtains, does not infinitely outbalance the expense incurred. Poughkeepsie is only a half day's travel from New York, and may be reached by a continued line of rail cars and

steamboats from Richmond in less than three days, at an expense of twenty dollars. For the kindness and hospitality of the managers of the exhibition we will answer with our life. If any farmer from Virginia wants to go, let him come to us, and we will give him a letter to a gentleman that will take care of him, certain.

For the Southern Planter.

### APPARATUS FOR RAISING WATER.



- A. The pump.
- B. Water box.
- C. Box for weight.
- D. Lever eighteen or twenty feet long.
- E. Fulcrum.
- F. Pipe to run in the valve.
- H. Piston rod.
- G. Spout to conduct the water into the box.

Washington, August 3, 1844.

Mr. Editor,—If farmers would calculate the value of labor expended in “sending to the spring”—sometimes a quarter of a mile distant from the house—and reflect how much suffering there may be in the animal and vegetable kingdom for want of a full supply of water, they would be the better able to estimate the value of any contrivance which should give them a perpetual flow of that important element of life at the door of their kitchen and barn-yard.

In connection with this subject it may be that you will find the accompanying letter from Mr. Bennett worthy of publication and it is accordingly placed at your service.

Very respectfully,

J. S. S.

Three Hills Farm, near Albany, }  
August, 1844. }

J. S. SKINNER, Esq.

Dear Sir,—Your favor of the 11th instant reached me this morning, and I embrace the first leisure moment to reply; and it will afford me great pleasure if I can be of any service to you in any way, and I feel gratified that you have given me an opportunity of manifesting it. There was no necessity for making any excuse for addressing me on any subject relating to agriculture—it is my delight to be useful, and to aid, if possible, my co laborers as well as those who have been the pioneers in the good and glorious cause.

As regards the “little contrivance for supplying myself with water at my house and barn,” of which you desire a description, I would beg leave to refer you to the 8th volume and 167th page of the “Cultivator” for a description of mine, headed “Hydraulics for Farmers.” Fearing, however, that you may not have that paper at hand I will describe it again.

When I purchased my farm I was not unminful of the necessity and convenience of a

goud supply of water. Through the centre of my farm, meanders a small, though never-failing stream, called "Crummy Kill," (in English Crooked Creek,) winding its way in a valley, watering eight lots, but laying so low it was of little use with the exception of furnishing stock when at pasture. My house stands fifty-two feet above the level of this stream, and notwithstanding I had three wells and a good cistern near my house and in the cattle yard, still I fancied that a luxurious flowing stream of pure, soft water near my house, would add much to the safety, comfort, cleanliness and health of the inmates, as well as the stock in my yards. I, therefore, conceived the idea of turning this idle stream to some account, and erected a simple apparatus, by which means I made it pour its necessary share at the door; a libation of neatness, temperance, industry and economy. In order to accomplish the desired object it was necessary to throw a dam across the ravine, in a narrow part to raise the water for a sufficient head to carry a small overshot water-wheel.—The dam now is about 150 feet long, and from 20 to 22 feet broad, made of earth and raised ten feet above the bed of the stream, and makes a good road from one part of the farm to the other, and can be passed with the heaviest loads, which of itself is worth the expense. The water is conveyed under and across this dam in a trunk, and raised to the level of the pond in a pentstock, from which it is conveyed on to the wheel. In order to secure it against freshes it was necessary to make a waste-way of sufficient size to carry off all surplus water.

Now, in this cold climate it was necessary to secure the pump and wheel from the frost; to do which, as I have no stone on the farm, I built a log cellar, (not a log cabin,) sufficiently large to place a wheel six feet in diameter with buckets eighteen inches long. A wheel of this size is unnecessary to work a small forcing pump, unless the supply of water is very small. One four feet in diameter and buckets ten or twelve inches long and four inches deep, would be sufficient to force two thousand gallons of water per day fifty to sixty feet high and any distance laterally. On the shaft of my wheel is an eccentric, (a crank would be more simple, cost less, and work better)—which by means of a pitman, gives motion to the working-beam, to one end of which the piston rod of the pump is attached. The object of this working beam is to give as little lateral or vibrating motion to the piston rod as possible. The pump is a double action, two inches in diameter, and has a six inch stroke—it sits on a small cistern which is supplied with water from the pentstock. The water is conducted to the house through pine logs, eight to ten inches in diameter and the bore one and a quarter inch—leadon tube of one inch diameter would be better.

The water is discharged into a reservoir or cistern, standing above ground, near my house, and holds 1,100 gallons, from which the surplus water is conveyed in one direction to my poultry yard—in another to my piggery, cattle and sheep yards—from thence passing off into a lot where there was no water. From the cistern the house and horse stable are supplied.

On the shaft of my water-wheel I put a cog-wheel 34 inches diameter working into a pinion-wheel 7 inches in diameter—on the shaft of which is a drum or pulley 3 feet in diameter.—From this drum I band off to a pulley on a shaft placed in the building over the cellar where the wheel is. This shaft runs lengthwise of the building on which are placed pulleys of different sizes, to give different velocities to different machines—such as a circular saw, a grindstone, a mill to grind feed for my stock, &c. &c. Either of the above named machines can be carried by my wheel, and all the water required is let in through a six inch square tube with little or no pressure.

It is surprising how small a quantity of water when there is a head and properly applied, it requires to force water 50, 60 or even 100 feet high. An overshot wheel 8 feet in diameter and buckets as many inches long—4 inches deep, with what water would pass through a 2 inch tube would, I think, be sufficient to work a pump 2 inches in diameter and throw up 50 or 60 feet high from 12 to 1600 gallons per day.

You say you "have heard of a trough being somehow used to lift a pump." I will endeavor to describe one I saw at the farm of Mr. S. Worth in Chester county, Pennsylvania.

In the meadow near his house passed a small stream of water, and without the appearance of any head or fall. Over this creek or brook he erected a long, narrow building, and excavated a cellar about four feet deep and walled it with stone. About thirty or forty feet from the bank of the creek was a pure, limpid spring of water gushing up into a curb which he had placed there. Now, with a very simple contrivance the water from this spring was forced up to his house, which stood twenty-five feet above the level of the stream. It is pretty faithfully represented in the engraving above.

The pump A, is two inches in diameter and six inches long, made of cast iron, similar to those used for steam engines for forcing water into the boiler. The box C, on one end of the lever, is filled with stones sufficient to raise the end of the lever after the water has been discharged, which is done by falling on to the pin F, which opens the valve in the bottom of the box, as shown by the dotted line. The lever then rises to its level, raising the piston and filling the pump—the box is then filled again with water from the spout G, which is sufficient to overpower the weight of stones and the resistance

of the pump. It makes from ten to twelve strokes per minute, throwing up nearly a pint at each stroke.

As soon as the box B is filled with water it immediately descends until the bottom strikes the pin F, which lifts a valve or clapper in the bottom of the box B, and lets out the water at once, and so on alternately.

This apparatus may be varied by raising the lever, and suspending the water-box B, which would give less vibration to the piston, and do away the necessity of guides. But after all, I think I should prefer the wheel even where the head was not more than four feet, it takes up less room and the motion quicker.

For further particulars I would refer you to pages 47 and 174, Vol. 7, and 167 of Vol. 8, of the Cultivator. You will also find in Gregory's "Dictionary of Arts and Sciences," under the head of "Hydraulics," a simple lever apparatus for raising water.

The pumps like the one I have in use are made at Troy, at a cost of about thirty dollars, which I can procure and forward to you if you wish it. You will probably find a model and specification at the Patent Office. It is "Farnham's Double Action Forcing Pump."

Truly, yours,

CALEB N. BEMENT.

For the Southern Planter.

HENRICO AGRICULTURAL AND HORTICULTURAL SOCIETY,

Will commence its fall exhibition, in the city of Richmond, on Wednesday, the 16th of October next, opening at 11 o'clock, when the following premiums are offered:

ON DOMESTIC MANUFACTURES.

For the neatest and most substantial counterpane, the production of the exhibitor, \$5 00  
 Do. do. mattresses, 5 00  
 Do. do. comfort, 5 00  
 Do. do. bedquilt, 5 00  
 Do. do. carpet, not less than 10 yds. 5 00  
 Do. do. hearth rug, 5 00  
 Do. do. stockings or socks, for each specimen worthy premium, 2 00  
*Committee of Award*—Efford B. Bentley, R. H. Jenkins and Charles Ellis.

MECHANIC ARTS.

James Boshier, Jacob F. Barnes, Samuel D. Denoon and William Mitchell, Jr., are appointed a committee to procure the exhibition of specimens of the mechanic arts of Richmond and Henrico; and the sum of seventy-five dollars is placed at their disposal to be awarded in premiums upon such specimens as they may deem worthy. A special report from this committee

is requested, with their opinion as to the proper arrangement of this department.

AGRICULTURE AND HORTICULTURE.

For the best specimen of rare and beautiful shrubs, plants and flowers, the production of exhibitor, \$10 00  
 For the second, 6 00  
 For the third, 4 00

*Committee of Award*—Thomas Ritchie, James M. Wickham and Gustavus A. Myers.

For the best specimen of fruits, \$5 00  
 For the best specimen of dried fruits, 5 00  
 For the best orchard of peaches, 5 00  
 For the best orchard of apples, 5 00

*Committee of Award*—John Carter, Joseph Sinton and John B. Young.

For the best crop of wheat, not less than five acres, \$10 00  
 For the best crop of grass, do. 10 00  
 For the best crop of oats, do. 5 00

*Committee of Award*—George Taylor, Dr. Garnett and William Miller.

For the best crop of Ruta Baga turnips, not less than half an acre, \$5 00  
 For the best crop of white turnips, do. 5 00  
 For the best crop of cabbages, do. 5 00  
 For the best crop of beets, do. 5 00

For the best crop of sweet potatoes, do. 5 00  
 For the best crop of Irish potatoes, do. 5 00  
 For the best crop of carrots, do. 4 00  
 For the best crop of parsnips, do. 4 00

*Committee of Award*—Ro. Carter Page, Thos. Gordon and Corbin Burton.

For the best crop of pumpkins, not less than one acre, \$5 00  
 For the best crop of corn, not less than five acres, 10 00

*Committee of Award*—Dr. Gaines, E. B. Selden and Sherwin McRae.

Where crops are too distant to be examined by committees, the proprietors are authorized to call on two or more disinterested freeholders to ascertain accurately, by weight or measurement, the produce per acre, and certify the same under their hands, to the Executive Committee.

Specimens of all crops entered for premium, are required to be deposited with the Committee of Arrangement in time for the exhibition, otherwise no premium will be paid.

Committees on Farm Crops are required, in all cases, to ascertain, by weight or measure, the actual product per acre, of such crops.

Successful competitors in farm crops are required, before receiving their premiums, to hand to the Secretary a detailed account of their crops, embracing the preparation of the land, quality of soil, time of planting, mode of culture, together with any other information they can supply, as to the rearing and value of such crops.

*Farm Committee*—William H. Richardson, Charles Marx and Chas. B. Williams, to make

a tour of inspection through the country, and to report to the Society at its October meeting, generally and specially, upon the state of agriculture within the bounds of the Society; to suggest such means as to them may appear most expedient for raising the standard of agriculture, and especially for diffusing information, and improving and encouraging the proprietors and cultivators of small farms. The committee is authorised to recommend premiums on such farms as they may deem worthy, and subject to the decision of the Society, but is instructed not to report upon any farm without the consent of the proprietor.

Committees are respectfully requested to make up their awards, and hand in their reports by or before 11 o'clock, on the first day.

*Committee to Select a Place for and to Arrange and Conduct the Exhibition*—Charles Marx, Dr. Henry Myers and Thomas A. Rust, with authority to add others.

The annual election of officers of the Society will be held the first day.

THOMAS S. DICKEN,  
R. B. HAXALL,  
WILLIAM D. WREN,  
JOSEPH RENNIE,  
WM. H. RICHARDSON,  
*Executive Committee.*

From the Southern Cultivator.

#### CURE OF SWINEY.

Swiney is a disease by which many of our finest road horses are annually retired from the saddle or harness, and turned out to pasture as almost worthless, or sold for one third their value. We have seen and tried a number of prescriptions for the relief of this troublesome affection of the shoulder, such as ironing, rubbing with the oil of earth worms, and various stimulating liniments, the introduction of seatons, lengthy incisions, with a deposite of poke root, to produce suppuration, &c.; many of which are worthless, and others both cruel and injurious.

The disease may be cured in less than a month, and the horse used daily if necessary, though it is best to give him rest if convenient. As soon as you discover the disease—which will be known by noticing the horse while standing after use, and it may be seen even in the stall, he will sustain the weight of the body on the opposite limb, and put forward the limb of the affected side, permitting it to touch the ground but lightly, limps when hurried down hill, the muscle upon the shoulder becomes thin, and in many instances the skin contracted and tight,—put a twist upon his upper lip, and introduce the small blade of a common pocket knife, (the point of which must be sharp,) into the thinnest part of the shoulder, which will be near the upper margin of the shoulder blade, and push it di-

rectly in until you reach the bone, holding the knife as you would a pen when writing, and scratch up the membrane that covers the bone for a space the size of a silver dollar; the knife may then be withdrawn, and after the small quantity of blood that follows is wiped away, the orifice will not be seen. The knife may then be introduced in one or two places below the first, and used in the same way, and the operation is over. This may be repeated in six or eight days: we have but seldom found it necessary to repeat the operation more than twice or thrice, and in many cases a single operation will effect a cure.

*Appling, April 10, 1844.*

Four oxen kept on cut-hay, eat 18 per cent. less than when given the uncut, and made 15 per cent greater weight of manure, and this manure from the cut hay was thought equal to that from the uncut.—*Massachusetts Ploughman.*

#### CONTENTS OF NO. IX.

- Corn*—Objections to the level mode of cultivation, p. 193.  
*Tobacco*—Advantages of ventilating a tobacco house, p. 193.  
*Colman's Agricultural Tour*—First number received, p. 194.  
*Sassafras and Alders*—To extirpate, p. 196.  
*Rust*—Caused by worms, p. 196.  
*Guano*—Must be applied cautiously, p. 197.  
*Safety Rein*—Miller's patent described, with a cut, p. 197.  
*Poudrette*—Its favorable action upon tobacco plants, p. 198.  
*Hay*—Experiment in curing, p. 199.  
*Emigration*—How to prevent, p. 199.  
*Lice on Cattle*—How to prevent, p. 200.  
*Animal Improvement*—Dr. Lee's views, p. 200.  
*Peach Trees*—Treated with charcoal, p. 202.  
*Corn*—Value of deep ploughing, p. 202.  
*Smut*—To prevent, p. 203.  
*Tomato Catsup*—Recipe for, p. 204.  
*Stable Manure*—To arrest the ammonia, p. 204.  
*Reaping Machine*—Success of M'Cormick's, p. 204.  
*Cultivator*—A good one, with a cut, p. 205.  
*H. & C. Club of Mecklenburg*—Report from, p. 206.  
*Ditching*—Machines for, p. 206.  
*Wheat*—Different kinds and proper mode of seeding, p. 207.  
*Valley Farmer*—A new paper in Virginia, p. 209.  
*Strawberries*—Proper mode of planting and cultivating, p. 209.  
*Wheat*—Comparison of Red May and Mediterranean, p. 209.  
*Asparagus*—Culture of, p. 210.  
*The "Planter"*—Increase of subscription, p. 210.  
*Animals*—Proper treatment of, p. 210.  
*Almanac*—From the office of the American Agriculturist, p. 211.  
*Food for Cattle*—Analysis of different kinds, p. 211.  
*Seed Wheat*—Kloss' White Blue Stem, p. 212.  
*Chickens*—Manufactured to order, p. 212.  
*Agricultural Exhibition*—Of the New York Agricultural Society, p. 212.  
*Water*—Apparatus for raising, p. 213.  
*Henrico Agricultural Society*—Fall premiums, p. 215.  
*Swiney*—To cure, p. 216.