

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.*

FRANK: G. RUFFIN, EDITOR.

P. D. BERNARD, PROPRIETOR.

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STATE AGRICULTURAL CONVENTION.

Charlottesville, March 1st, 1852.

F. G. RUFFIN, Esq.

Dear Sir,—Many of your friends in attendance upon the Agricultural Convention lately held in the city of Richmond, listened with great pleasure to the very able address read by you upon that occasion. They believe it to contain matter of grave import to the farmers of Virginia, and are of opinion that it should have that publicity to which its intrinsic ability and the general interest of its subject entitle it.

If our State possesses, as we believe she does, the richest soil, most genial climate and cheapest labor on earth, and is yet found to compare unfavorably in point of agricultural production with some of her sister States, less favored by nature, we, the farmers of Virginia, should know the truth, investigate the cause, and apply the remedy. Proud as we are of her historic glory, we should not be blind to the condition of her agriculture. We may rest content with the laurels our ancestors have won; but we cannot feed our children upon the bread they made. We, therefore, request a copy of your address for publication.

R. W. N. NOLAND,
W. H. SOUTHALL,
B. F. RANDOLPH,
W. N. RAGLAND,
F. E. G. CARR,
JESSE L. MAURY,
STEP. F. SAMPSON,
JOS. W. CAMPBELL,
J. WOOD, Jr.
F. K. NELSON,
C. G. MERIWETHER,
J. S. MINOR,
GEO. W. CRAVEN,
JAS. F. FRY,
JOHN R. WOODS,
J. W. GOSS,
T. W. MERIWETHER,
FRANKLIN MINOR,
CHAS. MINOR.

MESSRS. NOLAND, SOUTHALL, AND OTHERS:

Gentlemen,—Your note of March 1st is before me, requesting for publication a copy of the brief address I had the honor to report to the Convention of Farmers, lately assembled in Richmond. Grateful for the terms in which your request is couched, I comply with it at once; and, wanting a better place, beg leave to state here, by way of preface, the objects I had in view when I prepared it.

As to a patient who holds his life in his own hands, a physician will at once declare his disease and its remedy, so I thought to present to the farmers of Virginia their actual condition and the remedy for it. In doing this it was necessary to compare them with the farmers of other States, and I selected New York and Massachusetts for that purpose. Necessarily omitting a full comparison, and thereby, as I conceive, doing no harm to Virginia, I confined myself to a very brief and imperfect statistical exposition of her agriculture; and it was not my fault if documents official, and therefore presumably authentic, placed Virginia behind her contemporaries. But I would have been much to blame had I not endeavored, as I did, to point out how that reproach might be wiped away.

The address, as you know, was adopted by a large majority of the Convention; was re-considered and again adopted—was a second time re-considered, and was discussed by Messrs. Morson, Seddon and Willoughby Newton on the one side, and myself and several others on the other side, and laid on the table at the instance of one of my friends, who thought that in view of the application we meant to make to the Legislature, it was best to present unanimity in our proceedings. To this course a majority assented, influenced by the same opinion; and I, though differing with them, very cheerfully submitted to their decision. This left the address at my individual disposal, and I place it at yours.

Prof. Henry B. Backe

Of the grounds, untenable in my opinion, taken by the gentlemen who opposed it, it is unnecessary to speak. But I think their sensitiveness will not be appreciated, if it can be understood, by farmers at large. If their apprehension be well founded that fanaticism will seize upon the address as an anti-slavery argument, I can only say what they and I am fully agreed upon, that fanaticism is a fool for whose vagaries I am not responsible. I am a pro-slavery man—I believe it at this time impossible to abolish it, and not desirable, if it were possible. I believe that when the good God established it here he placed such a trust in the South as has never been reposed in any other nation—that it was a signal mark of favor, and that when, in His own wise providence, He shall decree its extinction, as I am sure He will, that it will be done without convulsion and without injury to white or black, and in a manner which cannot be foretold by the wisest leaders of the Liberty Party! This ought to be sufficient on that head, and I cannot consent, especially when backed by your request, to suppress important, wholesome truths, because bad men may make use of them. Reptiles will bask in the sun.

Finally, let me say, that the conception and execution of this address is wholly my own. If its publication produce displeasure, let it all fall on my head.

I am, gentlemen, with high respect,
Your friend and ob't servant,

FRANK G. RUFFIN.

Shadwell, Albemarle, March, 1852.

ADDRESS TO THE FARMERS OF VIRGINIA.

"The Southern States stand foremost in agricultural labor, though they hold but the third rank in population." At the head of these Southern States, in production, in extent of territory, in climate, in soil, and in population, stands the Commonwealth of Virginia. She is a nation of farmers. Eight-tenths of her industry is expended upon the soil; but less than one-third of her domain is in pasturage, or under the plough. Out of somewhat more than thirty-nine millions of acres, she tills but little over ten millions of acres, or about twenty-six and a quarter per cent. whilst New York has subdued about forty-one per cent. or twelve and a quarter out of her twenty-nine and a half millions of acres: and Massachusetts, with her sterile soil and inhospitable climate, has reclaimed from the forest, the quarry and the marsh,

about forty-two and a half per cent. or two and one-eighth out of her little territory of five millions of acres. Yet, according to the census of 1840, only six-tenths of the labor of New York, and four-tenths of that of Massachusetts, or, relatively, one-fifth and two-fifths less than our own, is expended upon agriculture.

The agricultural implements and machinery of Virginia, are worth but sixty-nine cents for every arable acre; in New York they are worth one dollar and eighty cents, and in Massachusetts one dollar and forty-nine cents for every arable acre; but, as in those States, the breadth of mowing and pasture lands is much greater than with us—the difference in value of agricultural implements, to every acre tilled, is still greater against us.

The live stock of Virginia are worth only three dollars and thirty-one cents for every arable acre; but in New York they are worth six dollars and seven cents, and in Massachusetts four dollars and fifty-two cents.

The proportion of hay to the same quantity of land is, for Virginia, eighty-one pounds; for New York, six hundred and seventy-nine pounds; for Massachusetts, six hundred and eighty-four pounds.

Now, "tillage and pasturage are the two breasts of the State." Tillage extracts from the earth; pasturage indirectly, but surely, restores to it. To keep the land up to its original fertility, still more to improve it beyond that point, requires a perfect system of tillage. By that means we are enabled to raise large crops, and thus to expend, as we needs must, in the form of manure, whether in substance or in revenue, a larger proportion of what we draw from the soil. To effect this tillage, and to apply this manure, with the least labor and to the greatest advantage, requires the best implements that can be constructed, each well adapted to its purpose. This rule is undeniable and of universal application. Yet we Virginians do not recognize it in practice. With access to the same markets, and with hundreds of mechanics of our own, who can vie with the best Northern manufacturers, we find that our implements are inferior, that the New York farmer spends upon his nearly three times as much as we do upon ours, and the Massachusetts farmer more than double.

But perfect tillage is not all. Pasturage is not less necessary as the means of supporting that live stock which shall aid us in tillage, feed us, clothe us, supply the

shambles, and make manure. Manure is indispensable to good husbandry. Judging from the history of agriculture in all other countries, we may safely say, that farming can never attain to continued perfection where manure is not put on with an un-sparing hand. By far the larger part of this can only be made by stock, which should at the same time be made the source of profit, at least sufficient to pay the cost of their keep, so that, *other things being equal*, it is a safe rule to estimate the condition of a farming district, by the amount of live stock it may possess and the provision made for their sustenance. Applied in this instance, we see that the New York farmer has invested in live stock two dollars and seventy-six cents, and the Massachusetts farmer one dollar and twenty-one cents per acre more than the Virginia farmer. In pasturage we cannot tell the difference. It is well, perhaps, for the honor of the State, that we cannot. But in hay, New York has five hundred and ninety-eight pounds, and Massachusetts six hundred and three pounds more per acre than we have. This, however, does not present the true state of the case. Landlocked by mountain barriers, as yet impassable for the ordinary agricultural staples, or debarred from their production by distance, and prohibitory rates of transportation, most of the wealth and exports of many considerable portions of our State consists of live stock alone. What proportion these parts bear to the whole, we have been unable definitely to ascertain; but it is no doubt so great as to warrant us in assuming a much more considerable disparity than the statistics show in the live stock of the whole Atlantic slope, as compared with New York and Massachusetts. And we shall appreciate still more highly the skill of the Northern farmer, if we reflect that a readier market for every, the most trivial product of his farm, operates a constant temptation to break up his rotation and diminish his stock.

In the above figures, carefully calculated from the data of authentic documents,* we find no cause for self-gratulation, but some food for meditation. They are not without use to those who would improve the future by the past. They show that we have not done our part in the bringing of land into cultivation; that notwithstanding

ing natural advantages, which greatly exceed those of the two States drawn into parallel with Virginia, we are yet behind them both—that with forty and sixty per cent. respectively of their industry devoted to other pursuits into which it has been lured by prospects of greater gain, they have done more than we have done. In one word, they prove the general inferiority of farmers in Virginia. More individual comfort and better food, and more luxury is enjoyed by us here, and more money, we know, is made, than at the North.—There is too, with some of our farmers, a vast deal of energy, and they afford many instances of very remarkable and praiseworthy skill. But notwithstanding these things with lands low in price, and labor, which, if not “intelligent,” is still so cheap that, with all our wastefulness, we can raise some of our staples and sell them at a profit, when the same acreable produce would starve the frugal free-soil farmer, we must yet confess that much is due to our climate. On the other hand, the frigid and inhospitable North compels to efforts which are here unnecessary; and the labor which cultivates the earth, from which they wring their scanty earnings, cultivates also the hardier virtues of our nature, which again re-act upon the soil.

Nor upon that alone. Whilst our population has increased for the last ten years, in a ratio of 11.66, that of New York has increased in a ratio of 27.52, and that of Massachusetts at the still heavier and more startling rate of 34.81. With a territorial area thirty per cent. larger than New York, we have but little more than one-third of her Congressional representation; and Massachusetts, only one-eighth our size, comes within two of our number of representatives, we being cut down to thirteen, while she rises to eleven. And thus we, who once swayed the councils of the Union, find our power gone and our influence on the wane, at a time when both are of vital importance to our prosperity, if not to our safety. As other States accumulate the means of material greatness, and glide past us on the road to wealth and empire, we slight the warnings of dull statistics, and drive lazily along the field of ancient customs, or stop the *plough* to speed the *politician*—should we not, in too many cases, say with more propriety, the *demagogue*!

State pride is a good thing, it is one mode in which patriotism is manifested. But it is not always a wise thing. Cer-

* Abstract of the Seventh Census, and the able work of Professor Tucker, on the “Progress of United States in Population and Wealth.”

tainly not, when it makes us content on small grounds. And when it smothers up improvement in self-satisfaction, it is a most pernicious thing. We have much to be proud of in Virginia. In intellect and fitness to command, in personal and social qualities, in high tone and noble bearing, in loyalty, in generosity, and magnanimity, and disinterestedness, above all, in moral purity, we once stood, let us hope, still stand, pre-eminent among our sister States. But the possession and practice of these virtues does not comprise our whole duty as men or as citizens. The great decree which has gone forth ordaining that we shall "increase and multiply and replenish the earth," enjoins upon us quite other duties, which cannot be neglected with impunity. So we have found out by experience—for we *have* neglected these duties. And when we contemplate our field of labor, and the work we have done in it, we cannot but observe the sad contrast between capacity and achievement. With a wide spread domain, with a kindly soil, with a climate whose sun radiates fertility, and whose very dews distil abundance, we find our inheritance so wasted that the eye aches to behold the prospect.

We shall not stop to enquire at whose door lies the cause or the blame of this devastation; or to ascertain whether it has not sprung from natural and unavoidable causes. We address ourselves to the remedy. That remedy, farmers of Virginia, depends on you; and it is hard to say whether it imports more to yourselves or society. With a new Constitution, we enter upon a new order of things. By universal suffrage, and by making all the most important offices elective, an additional amount of power has been infused into our political system—an additional amount of energy also. The restless activity of the people will not be stayed; and agriculture, whether for weal or wo, will feel and respond to the impulse. Two courses are before you—either to neglect the new duties which claim performance at your hands, thereby to sink below the depths of party spirit into the foul abyss of partizanship, and see yourselves degraded to a nation of tools and dupes; to surrender the whole direction of public affairs to those who make a trade of politics, and pander to the worst passions of the people whom they corrupt and abuse and betray—either this, or to take that control which rightly belongs to you, the natural rulers of the State and representatives of its conserva-

tism, to foster public spirit and private enterprise, to instruct, enlighten, defend and provide for the people, to give a right direction to the public mind, and to protect it from that bondage which the demagogue would impose, and which is rivetted by an uninformed and selfish and narrow spirit—these are the alternatives—choose ye between the two! You must conquer by action, or submit by inaction! Why not conquer? It is not difficult. Men instinctively worship law and order, because it is necessary to self-preservation. The true strength and excellence of government never did lie, God forbid it ever shall lie, in mere numbers. Moral influences control its operations, as certainly as gravity controls our steps. But unlike gravity, these influences are inert and require to be put in motion. It were invidious to particularize, but we may point in general terms, to States north and west of us, in which, as one or the other of these alternatives predominates, we see steadiness, loyalty and virtue, or the germs of restlessness, anarchy, grossness and debasement. Such tendencies now await us; one or the other we must speedily assume. Our population is beginning to increase. The far West has receded too far for further emigration. Our people will stay at home. They cannot be driven abroad; population will press upon subsistence, and we must make provision for it, or it will make provision for itself and become a curse, instead of a blessing.

But how shall this provision be made? By agricultural improvement, in the first place; by so developing the resources of the State as to keep all our citizens at work. By this means, we have every confidence that, in a few years, we shall regain the ground we have lost; and go as far ahead of other States as they are now ahead of us. This is no idle boast. In spite of the comparative bad management which we have proved to prevail in Virginia, it appears from the census of 1840, that the total value of agricultural produce, including, of course, what was consumed on the farm and otherwise applied to agricultural uses, was, in round numbers, in Virginia, New York and Massachusetts, fifty-eight, one hundred and eight, and nine and a half millions of dollars respectively, being to each person employed in agriculture in these States, \$186.60, \$240 and \$108, showing an excess in favor of Virginia over Massachusetts of forty-two and a half per cent. and of New York over Virginia

of twenty-two and a half per cent. Though we should not despond too deeply, nor exult too highly on account of this deficiency or excess, since an inspection of the tables of production will show that the difference is mainly due, on the one hand, to the grade of staples as dependant on climate and soil, and on the other, to the greater value of their annual productions.

Thus we find that in 1840 Massachusetts produced upwards of five millions of bushels of potatoes, or sixty bushels to each integer of her agricultural industry, whilst we made less than three millions of bushels, or 8.30. But of wheat and corn we made upwards of thirty-five millions of bushels, and Massachusetts a fraction under two millions. At that time, too, there was a bounty on the production of wheat, which stimulated its growth beyond the steady capacity of the State, as proved by the returns of the last census, which, putting her wheat crop at twenty-nine thousand seven hundred and eighty-four bushels, shows a deficit of one hundred and twenty-eight thousand one hundred and thirty-nine bushels, as compared with the product of 1840, whereas in Virginia there is a general increase of fifty per cent. and much larger, we know, as to tide-water and all that part of the State tributary to Richmond. On the other hand we find, when compared with New York, that we made of wheat \$31.50, of corn \$54—\$95.50 per hand, and she of wheat \$27, of corn \$15—\$42, or more than one hundred per cent. deficit. But in value of live stock and dairy products and hay, we made \$102, \$4, \$8.30 respectively—\$114.30; and she \$121, \$23, \$61.70—\$205.70; or nearly one hundred per cent. excess. The excess of value of her oat and orchard crop, about offsets the value of our tobacco crop, and leaves the difference in favor of New York mainly dependant on wool. As there is an evident mistake in the number of pounds of wool in Virginia, in the census report of 1840, we shall not state the figures, but refer in lieu of it to the more satisfactory report of the present census, which shows an excess in New York of thirty-eight per cent. in sheep, but only twenty-eight and a half per cent. in wool, or in that stock which the New York farmer feeds and we starve, an advantage in our favor, referable to climate alone, of nine and a half per cent. But our capacity for grass and hay and for live stock and their products, is fully equal to theirs, and what is true of sheep, is equally true of every other sort of farm

stock. With this cheering exhibit in our favor, we think it only necessary for the farmers to co-operate heartily, and all that our condition requires can be soon attained. If we can agree to meet each other, and to discuss our wants, state our experience and practices, compare our opinions and concert plans for action, the task is more than half accomplished. For reflection will have begun to rouse us to reform.

But it is not likely that a meeting for such purposes alone, will possess sufficient interest to call farmers together often, and keep them convened long enough to do much good. We would, therefore, propose, as an additional attraction, the formation of an Agricultural Society. Let this be properly organized; let it establish shows and fairs for the exhibition and sale of live stock and farming implements; let liberal premiums be judiciously bestowed on these and kindred things, on farms and on new and useful inventions; let addresses be delivered by our most intelligent practical farmers, and never, when it can possibly be avoided, by any other class of men; let this whole thing be a festival, and if an interest is not awakened in behalf of agriculture, it will be because of deplorable mismanagement, or because the farmers of Virginia are not actuated by the motives, which, under similar circumstances, have never failed to influence the same class of men elsewhere.

There may be some who will object to Agricultural Societies as useless, if not pernicious humbugs. We have not time now to argue the question at length with such persons, or to require of them, as we rightfully may, to offer a better substitute for the do-nothing policy which we propose to supplant. Our faith is strong in the good effects of such Societies, which are not only useful, as exhibitions of the skill of the farmer, and of his best friend, the mechanic, and as affording in farm management, in stock breeding, and in implements, models for the diligent enquirer, and encouragement to competitors for excellence, but, also, as a means of eliciting, incidentally, much valuable information from those who compose such Societies. It has been well said, recently, that "the principles of exhibitions has been recognised by all nations and in all climes. Man naturally seeks to enlist the sympathy of his fellow man towards the object which he admires. The world's history tells us, that every people, according to the spirit of its time, and national feeling, has held exhibitions

of that which it held in highest esteem." At present, they are the "order of the day." And, with the recent triumph of Virginia's skill at the World's Fair, when McCormick's and Hussey's reapers bore off the palm from all sorts of competition, and where America contributed substance, whilst Europe offered gewgaws, we should be the very last to reprobate or abjure them.

But who ever heard of Northern people spending money where it did not pay, and continuing to do it year by year? If it is true that we can safely follow them in a matter of dollars and cents, we may take a lesson from the late report of the Treasurer of the New York State Agricultural Society. According to that document, we find that the total receipts of the Society for the last year, including the State contribution of \$880 43, was \$17,218 85, of which sum \$11,954 25 was received for entrance tickets and contributions at the State Fair, all paid by individuals who love their money at least as well as we do. Of this sum \$5,155 73 was distributed in premiums, and only \$1,000 13 expended in salaries. When it is considered that this striking exhibit is made, after an experience of twenty years, we think it very safe to conclude that it evidences utility, good management, and a public spirit beyond all praise. Shall we not emulate it? The details of the management of other Societies, which it were tedious to recount, exhibits similar, if not equal, results.

The last question we shall discuss, is that of the finances necessary to start and sustain such a Society. We must have money. It has been decided to introduce a bill into the General Assembly asking for an appropriation of State money, conditioned on an equal, individual contribution, and the enactment of such provisions as shall secure to the State Society the certain collection and full fruition of their funds. To those who object to the tax thus proposed to be laid, we beg leave simply to say, that there are 76,704 farms in Virginia, and that, should the whole tax amount to \$10,000, a sum we cannot hope to realize, it would make just thirteen cents for each farm; if they quarrel with that amount, we reduce it forty per cent. for the independent appropriation of \$4,000 already made, for the employment of an Agricultural Commissioner and Chemist, which leaves 7 8-10 cents. If this does not quiet their fears, we can tell them that about

one-half of it will be contributed by others than farmers.

To those who are expected to raise the individual sum, we appeal by all the considerations we have adduced and by all the other motives which should actuate them. We ask the man of moderate means to make an outlay which will reimburse him one hundred fold. We ask the rich man to become at once a life member, and to make his children such, that so, he may evince his liberality, and may not suffer the stinging reproach that he is surpassed in his virtue by his poorer neighbor. We appeal to all to keep up the character of their country for generosity.

But we are well aware that, with the mass of men, such addresses as these are not efficacious. Individual solicitation is necessary to rouse the majority of mankind, who rarely act in large bodies from concurrent impulse. Is it not then the duty of the active and public spirited few, who feel the importance of this thing, and acknowledge it to themselves, to take it in hand and carry it through? Should not all such work from a sense of pride if not from a sense of duty, and from very shame, if not from pride? We challenge them to meet us in the field of action, conscious that if they beat us, they can but

—"learn us how to lose a winning match."

Let them come prepared to make such efforts in this cause as Virginia *has* made in politics, and equal success and ultimate supremacy will crown the work. Let them accommodate themselves to the spirit of the age; let their State's rights mean the right to make Virginia the greatest of States. Is not such a consummation worth some little effort?

In conclusion, we beg leave to say that, in speaking so plainly, but by no means despondingly, we have but done our duty. Virginians in heart and soul, proud of our nativity and of our people, we yet feel bound to tell the truth, if it be not pleasant. We are too much the *friends* of the people to become their courtiers.

We make no apology for publishing the foregoing address, because we believe it *contains the truth*. We ask for it, not as our own production, but as an exposition of Virginia agriculture, a candid and attentive perusal.—
ED. SO. PLANTER.

For the Southern Planter.

DANIEL LEE, M. D.

Mr. Editor.—In looking over a late number of the Southern Cultivator, published at Augusta, Georgia, and seeing the name of Dan'l Lee, M. D. Editor! I was forcibly reminded of the graphic picture drawn by Washington Irving, of the New England farmer: "The first thought," says he, "of a Yankee farmer on coming to years of manhood, is to settle himself in the world; which means nothing more than to begin his rambles. It is not the nature of this most indefatigable of speculators to rest content with any state of sublunary enjoyment. Being at one time settled, and to use his own words, 'to rights,' one might imagine that he would continue to enjoy the comforts of his situation; to read, to write for the papers, to *lecture* on some favorite topic; to neglect his own affairs, and attend to those of the nation, like a useful and patriotic citizen; but now it is that his wayward disposition begins to appear. He soon grows tired of a spot where there is no longer any room for improvement. He sells out—and starts to again wander."

I think I may safely congratulate the Doctor, for, at the same time that he has deserted his home, he is evidently about to abandon his principles. There can be no other excuse for the random and uncertain reply to the article of "A Virginia Farmer" on the "Improvement of the Naturally Thin and Partially Exhausted Lands of his own State."

Nothing but the prominent place into which Dr. Lee seems determined to thrust himself, renders it necessary for me to say a word in answer to his reply to my strictures on his first article. Indeed he makes no attempt to refute a single important point of my argument; but contents himself with misrepresenting me, misquoting me, and actually inventing for me; by such flimsy pretexts hoping to conceal his own weakness; evidently willing that the cause of agriculture should suffer, rather than come forward, like a man, and acknowledge that he had written "an unconsidered trifle."

If truth be his object, why does he tell his readers that I had written three or four pages of *sectional abuse* in the Southern Planter?—"My offence hath this extent, no more"—that in exposing one great humbug I made allusion to others of less moment, though all emanating, as it happened, from the same quarter. I was not aware that New York considered her reputation assailed, or would cry out "Touch not mine anointed, and do my prophet no harm," when "A Virginia Farmer" spoke slightly of wooden nutmegs, Berkshire pigs, or a deceptive system of farming. It is impossible for us to entertain a very high respect for any of these things, though the one may come recommended as *the gentleman's hog*, and

the other may be promulgated *by a gentleman*, who has written something for *the Patent Office*.

If truth be his object, why does Dr. Lee tell his readers, that "A Virginia Farmer" commits an inexcusable blunder in assuming that the principles of agriculture are not the same in slave-holding States, as in those States which have no slaves?

"A Virginia Farmer" perpetrated no such folly. On the contrary, he asserted, with emphasis, that THE PRINCIPLES OF AGRICULTURE ARE THE SAME EVERYWHERE, and that all good husbandry depends upon the completeness of their execution.

If truth be Dr. Lee's object, why does he tell his readers, that "A Virginia Farmer ignores all husbandry, and recommends no other crops than tobacco and corn?"

"A Virginia Farmer" said not one word in disparagement of husbandry. He made no exclusive recommendation of corn and tobacco. He advised that a new-ground or a foul old field should be cleansed with a crop of corn or tobacco, in preference to seeding it down in wheat or grass, and using only a harrow to prepare the land. Farther than this he went not; but attempted to show, that the true principles of agriculture being adopted would lead to an increase of grain, of grass, of stock and of manure.

If truth be his object, why does Dr. Lee tell his readers, that "A Virginia Farmer is entirely ignorant of the system of husbandry which the good and pious Abel pursued?"

If by this the gentleman means the grass and stock husbandry, it is sufficient for me to say that I did not offer to lay down any particular system either of husbandry or of tillage, and, therefore, could neither have displayed my knowledge nor exposed my ignorance.—Does the gentleman expect to advance the true interest of agriculture by such unworthy means? Or does he not rather hope to "darken counsel," and in the mist of words, to make his retreat from a position he found untenable, if not with credit, at least without censure?

There are but two other points in Dr. Lee's reply which require notice from me. As they are matters of importance, I ask for them the serious consideration of your readers.

Dr. Lee says that the plan of manuring an impoverished field, or a lot of land naturally poor and thin, by cultivating it in tobacco, is "fatally defective." 1st, because "the crop of tobacco removes from the soil ten times as much potash as was contained in the manure;" and "secondly, because the tillage necessary to its production, exposes the alkalies to be washed by rains into the swamps and branches." This, in the end, "must consume all the most costly and important constituents of plants within two feet of the surface of the ground."

This is the broad and unqualified assertion of Dr. Lee, and from it there is no appeal, because the Doctor informs us that *he* "has written an article for the Patent Office on the

'Study of Soils.' " If this be true of tobacco, it is true of every other crop in a greater or less degree, and the consequence is inevitable, that all tillage of naturally thin or partially exhausted lands, must cease, and three-fourths of the arable land of our State must be left to "the skyey influences;" except, that they may occasionally be sown in wheat or grass, with the condition that the surface of the ground is only to be scarified with the harrow, lest the rain should wash out the alkalies.

Now, sir, "there are many events in the womb of time which must be delivered," but it is a matter of special wonder to me, that a gentleman who aspires to be an instructor in agriculture, should pass by without notice the accumulated and successful experience of the world, and gravely insist on our abandoning tillage, and drainage, and manuring—all the processes of industry, and embrace with eagerness a system which we are convinced must render our lands sterile by idleness.

It has been ascertained that three-fourths of the cleared land in Virginia are in the state which Dr. Lee describes as "naturally thin, or partially exhausted." These lands, he says, cannot be improved by any other system than the one which the good and pious Abel pursued; in other words, we must set our negroes adrift, and turn shepherds! "We have just as much reason," he says, "to believe we are growing rich, if we put a dime in our pocket, and spend a quarter, as we have to believe that we are improving our lands when we manure them, and cultivate any of the staple crops of the country; because such crop takes off a larger amount of one or more of the important constituents of the soil than was given to it in the manure.

Now, sir, this is the result of *writing* on "the study of soils." To see things as they are, is in agriculture, as in every thing else, the first rule of good sense. We have some farmers in Virginia who have not only *written about*, but have *studied* soils; and not only have they done this, but they have cultivated and improved "naturally thin, or partially exhausted soils." Is Dr. Lee ignorant that in Eastern Virginia, wherever the lands have been limed and manured, (a practice which is rapidly extending,) the crops of corn, and wheat, and grass, and manure, and stock have more than quadrupled! According to the Doctor's theory they should have diminished each year.

If we look to Middle Virginia, embracing the tobacco region, do we find anything in the cultivation of this crop necessarily exhausting? or incompatible with the highest state of improvement to the soil? Do we not find the farm in the highest state of fertility, as often in the hands of a large tobacco planter, as in those of a farmer who for years has abandoned the crop? But let us examine this matter a little further.

Wheat on ordinary land we know will not grow after wheat. Now no man who is quali-

fied to pronounce an opinion will deny that wheat will grow well after tobacco; and that clover, or any of the artificial grasses, will take and grow well after the wheat. Indeed, there is no preparation which you can give land, that puts it in so good a condition as the tobacco crop for producing either wheat, grass, corn, flax, turnips, cabbage, or any other plant that is suitable to the climate of Virginia. This is not to be received as the mere assertion of "A Virginia Farmer." It is the observation and experience of every man in the State of Virginia who has ever cultivated an acre of tobacco and followed it by any other crop. Yet Dr. Lee would convince us that our lands are becoming rapidly exhausted, because the little mineral matter which the tobacco may have left, must have been washed into the nearest swamp or branch.

It has been the practice in many parts of Virginia for planters to set apart particular lots for tobacco, and to cultivate them in the following order: tobacco, wheat and clover; and such a course has not seemed to exhaust the soil, or diminish the crop. The late Wm. Old of Powhatan, who was noted for the high degree of improvement to which he had brought his estate, (its condition, when he came into possession of it, being such that its owner had to abandon it, because he could not make a living on it,) had but two lots for tobacco, which, after once manuring, he cultivated for fifteen or twenty years alternately in tobacco and oats—returning the oats to the land. No planter in the State made larger crops, in proportion to the land cultivated, or obtained higher prices in market, and at the same time the other products of the estate were so increased, and the general improvement so great, that but one other farm in his district could be compared with it. The culture of tobacco is not necessarily incompatible with the improvement of the soil. It is at least a *very slow poison*.

Mr. William Garth of Albemarle, who is now publishing in your paper a series of articles on the Management of the Tobacco Crop, which will be read with interest, as coming from one of the largest and most successful cultivators of this crop in Virginia, is also one of the largest grass, and grain and stock raisers. He has even supplied the New York market with some good beef.

Mr. Garth has been for years in the habit of applying his large stores of manure to his "partially exhausted lands," and after an ample return in tobacco, he has been accustomed to reap crops of wheat off of the same land, quadruple in amount to what it would have produced without the previous preparation for and cultivation of the tobacco.

Such lands he rightly considers as permanently improved, and that under a system of judicious management they will continue to yield an increased amount of grain, and grass, and stock, and manure; but Dr. Lee says that the crop of tobacco alone has exhausted the

land of ten times as much potash as the manure contained; and that most of the other important constituents of the soil have been exposed by the tillage, and have been washed out into the swamps and branches!

Much of the organic matter or mould too, he says, must be sought for in the springs in the form of canic or apocrenic acids. But,

"Facts are stubborn things,
And canna' be disputed;"

or overturned by theory.

I have instanced the practice of Mr. Old and Mr. Garth, because at the same time that they were known through the State to be large and successful planters, it was known that they had brought their lands to a comparatively high state of fertility.

I could fill this sheet with *facts* in opposition to Dr. Lee's *theory*, but the experience and observation of every farmer must convince him that this new light is one that "dazzles to lead astray."

We must not follow it. A bountiful Providence never ordained that the industrious and intelligent manning of the soil should result in certain and speedy barrenness.

"A Virginia Farmer" can never be persuaded, that the Father of all the families of the earth means to impose the horrors of starvation upon his children, in spite of their best directed efforts to improve the patrimony with which he has endowed them.

"There are more things in heaven and earth" than Dr. Lee has dreamt of. Admit that each crop in its turn takes from the soil more of its peculiar food than is returned to it in the shape of manure. As long as our lands are capable of producing crops there is no cause to despond, much less to despair.— There is a supply in reserve, ample in most cases for our wants, and the diligent and hopeful farmer will never lack. If he will apply *all the available resources* of his farm Nature will supply every deficiency.

Every stone, and pebble and bit of gravel contains a portion of one or more of the mineral constituents of soils. The clay is Nature's store-house for these substances. Already abounding in them, it is a wise provision that it yields its wealth with reluctance to the shallow and slovenly cultivator, while it bestows it, with no niggard hand, on the farmer who thoroughly breaks, and pulverizes, and drains, and manures his land. From their strong affinity for the clay, they become incorporated with it as soon as they are dissolved by the rains, and I have reason to believe that a very small part of the inorganic manures is lost in the swamps and branches.

Lime, as a general rule, has been found universally applicable as a dressing for the lands, and this in much larger quantities than merely as a food for plants. I shall not stop to inquire into its mode of action. It is sufficient for my purpose to say that in the State of Virginia it

has been proved, when used along with all the other methods of good husbandry, to be the substance which all our naturally thin lands require to advance them to the state of remunerative production. The different marls of Eastern Virginia and the extensive veins of limestone in other parts of the State, offer an abundant supply of this material to the farmer. I know very well that there are soils which require a specific manure before they can be improved, but they are exceptions to the general experience of the world, which shows that liming, in addition to *all* the other appliances which the good husbandman uses, is sufficient to improve and preserve the fertility of his land.

There is but one other point in Dr. Lee's reply which requires notice; and by the way, it is the only attempt which he makes to defend the principles and practice which he had no hesitation in recommending as the best means to improve "the naturally thin or partially exhausted lands of Virginia." He is still in favor of laying lands down in grass, by the use of the harrow alone.

"Still harping on my daughter," and being of course, unable to bring either the authority of science or the weight of experience to his aid, he contents himself with drawing a fancy sketch of a dairy farm, consisting of a hundred acres of a foul and worn-out old field in Virginia, with the filth burned off and the grass seed and manure harrowed in on the surface, without any other preparation.

Dr. Lee says that a northern dairy-man, (with the lights of "The Genesee Farmer" to guide him,) would stock this field the first year with fifty cows. Each cow would yield two hundred pounds of choice butter a year, which would sell for twenty-five cents a pound in any of our cities, and the buttermilk and other things would be worth five hundred dollars more. He would go on adding to his stock five cows annually, and in ten years he says *one hundred acres of deserted old field* would support *one hundred cows*, would be worth *ten thousand dollars*, and would yield an income of *five thousand dollars* in butter alone, (pork not included!)

The Doctor adds, that "so sure as grass grows, this will be the result." I have my doubts.

I will repeat again what I have already said more than once, and what I am confirmed in by the opinion and practice of all good farmers; that when land is to be laid down in grass it should not only be clean and well pulverized, but all the roots and weeds should be extirpated, and the condition of the soil made as perfect as previous thorough tillage and manuring can make it.

If the grass will not grow with the preparation which the Doctor advises, of course his plan of making a fortune must fail. I think, nay, I am certain, that it will fail. But the most surprising part of his scheme is, that in his twenty thousand pounds of butter, the

Doctor does not intend to sell any thing but *air*. This, he says, he can demonstrate. We will excuse him. He no doubt uses the patent *atmospheric* churn. In Virginia we stick to the old dash churn, with cuflee at the handle; and as in most other things in which he is employed, the butter turns out something more substantial.

The Doctor thinks that he has made a grand discovery! That a crop of milk and butter may be gently abstracted from the soil for an indefinite period, without its showing signs of loss; in other words, that you can do that by indirection which you could not possibly do by direct means. In Virginia we have high authority for believing that "all flesh is grass," and that the milk differs no more from the grass from which it is elaborated than the bread from the corn or the flour from the wheat. The Doctor has jumped at the conclusion that butter is nothing but *air*, because the chemists tell us that the *pure animal oils* consist of nothing but carbon, and oxygen, and hydrogen, in the proportions which form water. But as we see it, butter is not a pure animal oil. A particular process is required to render it pure. There is much of the curd of milk taken up with, and incorporated in it; and this is one of the richest substances in phosphates and alkalies which is known.—There is, moreover, in all butter a mixture of whey, and this also contains more or less inorganic matter.

"A Virginia Farmer" has never doubted that a dairy farm might be made profitable, but he puts no faith in such exaggerated pictures as the one Dr. Lee has drawn.

Dr. Lee takes occasion to tell "A Virginia Farmer" that "at the great State Fair held at Rochester, New York, where one hundred thousand persons were expected to dine, good table butter was selling in the streets at eleven cents a pound, and this," he continues with an air of exultation, "*the product of free white labor.*"

For the life of me I can see no cause for peculiar satisfaction at this circumstance: I am sorry they did not get twelve and a half cents. We cannot afford to make it even at that price. The wages of labor are too high in Virginia for us to make butter at ninepence.

Dr. Lee tells us that before he removed to Georgia, to edit the Southern Cultivator, he was himself keeping a dairy farm with some fifty cows.

Now, sir, if an impoverished deserted old field in Virginia, of one hundred acres, will yield an income of three thousand dollars, the first year, under his system of management, and in ten years will be worth ten thousand dollars, and yield an income of five thousand dollars, and *pork without limit*, what must have been the profits of a farm of the same size in New York, under the Doctor's own eye? It is impossible for us to restrain our astonishment, that when the Doctor appeared to "be settled and every thing to *rights*, writing for the papers, lecturing on agriculture, and attend-

ing to the affairs of the nation like a good and patriotic citizen," while at the same time he was reaping a golden harvest from his dairy farm, he should have abandoned all the privileges of his situation, and yielded up, apparently without a struggle, profits which it would be idle for us to attempt to reckon.

The records of the Patent Office throw some light on this otherwise mysterious movement.

"Oh! that mine enemy would write a book!"

In the Patent Office Report on Agriculture for 1850, Dr. Lee publishes to the world that in the State of New York "there are three hundred thousand farmers who are yearly impoverishing their lands; that the finest wheat districts in the State, yield an average of only from five to eight bushels per acre; that much land is annually turned out in thin and poor pasture for a term of years." ("A Daniel come to judgment! yea, a Daniel!") "That in nearly half the counties of the State population has decreased, notwithstanding the rapid growth of her cities and villages, which demand an increase of farm laborers to supply the mere local markets." "A Daniel, still say I; a second Daniel." "The Genesee Farmer" and dairy husbandry, do not seem to have answered. Dr. Lee has administered his two panaceas, (either of which, he said, would do for Virginia,) yet the patient grows no better, but rather worse. The Doctor has become alarmed; has deserted his patient in extremity, and has sought, in a distant and strange land, a new theatre for his practice.

As I am only a plain, practical farmer, with no peculiar fitness to instruct others in agriculture, or in any thing else—with no single qualification for investigating the true principles or enforcing the right practice of this noble profession, which is not possessed in as great, or a greater degree, by each one of my associates, I here bid adieu to Dr. Lee and his heresies. If error has been exposed and truth vindicated, every thing has been accomplished which was proposed by

"A VIRGINIA FARMER."

For the Southern Planter.

MANAGEMENT OF SERVANTS.

Mr. Editor.—At the request of some of my friends I send an article on the management of servants.

Young servants should not be suffered to run off and hide when the master comes up, or any other white person; they should be taught to stand their ground, and speak *when spoken to*, in a polite manner; have them well clothed, and this thing is more easily accomplished. A lot of ragged little negroes always gives a bad impression to strangers, and is often the cause of their running away and being

hard to manage when grown. Talk to them; take notice of them; it soon gives them confidence and adds greatly to their value. Some few persons are too strict with servants; but for every one who errs in this way, one hundred may be found who go to the opposite extreme, and let them idle away their time and do no more than half work. The result is, in many cases, the master breaks, the white family is left in poverty, and the poor negroes are sold. No one can treat negroes well who does not make them work, and take care of what is made and bought. They become restive, run about at night for want of exercise in the day, to pilfer, and visit, hear the news, &c. &c. Adams & Co.'s Express can't beat them in the transmission of all sorts of reports; they travel from ten to thirty miles in a night, and many, it seems, do with less sleep than almost any other animal. A great deal of whipping is not necessary; *some is*. If they know that they will be corrected when orders are disobeyed, in a proper manner, it is sufficient. Kindness when sick, and at all times when they deserve, or will *permit it*, is a great thing. The hope of reward and fear of punishment induce human action in master and servant. Never overtask your servant; feed and clothe him *well*, allow a reasonable time for sleep, and you will not be apt to injure him by work in the day. Never scold nor threaten.

Your friend,

W. W. GILMER.

Ivy Creek, Albemarle, March 17, 1852.

For the Southern Planter.

STEAM AND WATER POWER.

Mr. Editor,—In some essays which were published in the last volume of your useful journal I endeavored to enforce upon the Southern people the importance of greater attention to the advantages of steam and water power, and labor-saving machinery in general. I ascribed the superiority of our Northern brethren in the various mechanical operations to their greater enterprise in these departments.

I also urged it as the most efficacious "remedy" for the interference with the institutions of the South. Once convince the Northern population that they are dependent upon the slave country for a demand and market for their fabrics—without which their enterprises would sicken and perish—and it would do more to accomplish the desirable objects of fraternal intercourse and interchange than the whole political machinery could effect in a century. But manual labor cannot compete with machinery—nor can the staple commodities requiring it, be as profitable as those which are aided by machinery.

It is the manipulation required by the tobacco crop and the consequent number of *hands* to be supported from the soil, that is the fountain

of that desolation, which invariably follows in its train, and not the exhausting nature of the plant itself.

In connexion with this subject I undertook to describe some machinery which I had attached to the water power of a grist mill—consisting of a grist mill, also fixed to crush and grind grain and cob together, with a fan to blow off impurities—a large up and down saw, and a small one—a circular saw in a work bench—a turning lathe—a grindstone, &c.—all propelled by the same water wheel, at comparatively little expense, and by a very small stream. Having the workmen, and various materials convenient, I was induced to enlarge the operations by the addition of flour fixtures, besides others, which, commanding an extensive custom, required the aid of some other power. This was supplied by a steam engine which I had an opportunity of purchasing with a warranty of successful performance at a comparatively low price, having been previously used in a saw mill. While other matters may be incidentally discussed, the chief object of this communication is to announce the perfect and successful harmony of action between steam and water power, as I deem it the duty of every citizen, particularly every farmer, to communicate whatever he may deem important to the promotion of the agricultural interest and whatever may be incidental and auxiliary to it. There is no difficulty in propelling the *whole* machinery (though perhaps not all at one time) either by water alone, or by steam alone, or combined in equal quantities, or with more of one and less of the other. This, I presume, has been done repeatedly in other sections, but I have never seen it attempted in the South, except at the Swift Creek Cotton Factory, near Petersburg, where, I believe, it did not succeed well, in consequence of some defect in the manner of its application. It can be attached to any part of the machinery which will allow a band-wheel to connect with the band-wheel of the engine. My saw mill was propelled by a horizontal shaft connected by a small spur-wheel with the driving-wheel of the grist mill. On this horizontal shaft was a face cog-wheel, about eight feet in diameter, which propelled the saw mill. I had nothing to do but to extend a band from the band-wheel of the engine on to the driving-wheel of the saw mill, which is so connected with the other machinery (though easily detached) as to propel the whole, if necessary. I have had an opportunity of testing its performance fully, for during the unprecedented dry fall it has been necessary to use the engine in assistance of the water power, or without it, for more than sixty days in succession, and a large portion of many of the nights—as the pressure on the various operations, particularly the flour department, was very great. The hands about the mill were of more than ordinary intelligence, but had never managed a steam engine. I have never, however, had any difficulty on this ac-

count. There being a safety valve to let off the steam long before the capacity of the engine is filled, and the water being made hot by a condenser before it is conducted into the boilers, I do not see the danger from bursting. I understand accidents of this kind generally happen from the sudden rush of cold water into heated boilers. But this is so situated that by means of a lead tube from the forebay a gradual supply is always afforded to the condenser, where it is heated in its passage to the boilers. My engine was of about eight horse power, with a single boiler. Another boiler was added, which would probably increase it to twelve-horse power, though I have rarely seen it up to half its power.

It might be deemed useless to communicate the successful co-operation of these two elements without discussing the expediency and profit of their use or combination. From my experience I certainly would not recommend the erection of a *grist* mill to be propelled by steam for the benefit of the toll—nor, indeed, unless in a very favorable position, any one mill, though for wheat or sawing it might be profitable. The question might be considered whether a person might not use an engine for two months in a year at a loss to enhance very much his custom during the other ten months, as it is known that nothing so much enhances the custom of a mill as the certainty of always having the grain ground. Before I purchased this mill its custom would not have occupied it half of each day, and now the constant use of both steam and water would not supply half the demand; though this is ascribable much to the flour and sawing fixtures, which were not formerly attached to it. Each individual can judge for himself the effect to be produced by such arrangements, much depending on the location, &c. My object is only to announce the perfect practicability of what I have stated, leaving the expediency to be determined by the peculiar incidental circumstances. While I might doubt the policy of the expenditure for any one operation, I might not hesitate to recommend it where several can be combined. And though I might deem the warning "not to have too many irons in the fire" very wise and proper, in the general, still it might happen that after securing a certain amount of power and preparation for one department, (suitable also for others,) good judgment and prudence might require its employment for those other purposes. By putting one common rough band-wheel with slats four or five feet wide, (not costing five dollars,) on the horizontal shaft of the saw mill, I could run six bands, propelling that number of the different machines. Nothing is now required but the cost of a band and ordinary threshing box to thresh wheat, which is my purpose; and it can also be cleaned and manufactured on the spot. Without the least expectation of it at first, I found that in preparing for other operations, I had all the important and essential materials for an extensive tannery. Trees

I wished to cut down to clear the land and supply timber for the saw mill, also affording fine bark, otherwise wasted; machinery for other purposes, which also grinds bark with great facility, and comparatively without expense. An engine is considered so important in the operations of a large tannery that it is considered a judicious investment, though used for no other purpose. By means of lead pipes the vats are filled with water without trouble, of consequence, which is boiled or heated by other pipes from the engine, so as to extract the substance from the bark in a very short time, and obviate the delay incident to cold or freezing weather, and lessening very much the time, and quantity of bark otherwise required. It is under the management and supervision of an intelligent gentleman of long experience both in England and this country, who is entitled to the credit of its peculiar arrangement, and fully open to the inspection and examination (as well as every thing about the establishment) of any person whose interest or curiosity might prompt it—not being restrained by any consideration of self-interest to withhold anything useful from any apprehension of competition, but anxious to communicate whatever may be advantageous to the community at large, or to individuals. Any person, however, would be much disappointed in anticipating any appearance caused by expenditure beyond the cheapest and plainest practical utility.

My remarks have been more diversified concerning the operations of a steam engine, because while no one department might justify the expense, the combination might. I look to the introduction of steam into the different ramifications of agriculture as one of the most certain and most important incidents and concomitants yet to be attained for general use. Some improvements, lessening the expense, and increasing the facility of managing it, are yet to be developed, and it is with much gratification that I perceive the interest on the subject evinced by premiums offered by the different agricultural associations. In addition to the practical advantage there is humanity and satisfaction in accomplishing arduous operations without the exertion and exhaustion of animal muscle.

With guano to fertilize the land for wheat, drills to sow it, reapers to cut it, steam to thresh it, and rail roads and other facilities to transport it to market, it would be difficult to prescribe limits to the productions of our country; and though the price per bushel might be reduced, the net income might still be enlarged, besides the comfortable and humane influences which peace and plenty would spread throughout our highly favored land.

These are objects of national importance, and as far as is proper should engage the attention of the government; and it is gratifying to witness its beneficial influence through the agency of the Patent Office.

If something could now be done within its

legitimate sphere to reduce the price of guano, and place it within the reach of moderate means, some atonement would be made for the neglect which this most important interest has heretofore suffered; and the politicians might thus secure the commendations which at their expense are bestowed on those who "make two blades of grass to grow where but one grew before."

EDWIN G. BOOTH.

Nottoway County, Va.

For the Southern Planter.

HOW TO ADVANCE AGRICULTURAL SCIENCE.

Mr. Ruffin.—The great reproach of agriculture has long been its slow progress toward improvement. Should I have hit upon one chief cause of this, and in some degree its remedy, you would, I am sure, value the feeblest ray of light on this our great national interest.

Agriculture is an experimental science, with this striking peculiarity, *that a whole year is required for one experiment.* When the falling of an apple suggested to Sir Isaac Newton an inquiry as to its cause, he could repeat that or similar trials to any desirable extent in a short time. So also of chemistry and most other objects of experimental scientific research.—This difficulty as to *time* is plain and undeniable, yet I have never seen it insisted on, or turned to any practical account. The remedy would seem to be to combine the united efforts of many observers, such as we may now find in our State Society. The true key to progress in this work has, I think, been found by the "Hole and Corner Club of Albemarle, No. 1," and only requires to be enlarged and applied to the whole State, to produce the happiest results. The leading idea of their association was to devise, with due deliberation, a set of experiments for each year, to be tried by select committees, and their exact results to be reported. Should the Executive Committee of our Society do this office, of planning carefully, and, if possible, in tabular form, some twenty to fifty experiments, and then distribute the duty of their performance to some twenty or fifty persons for each one, in sections of two or three in different neighborhoods throughout the State; we could hope to learn something *certain* each year. Should all these substantially agree on their special subject, then it might be set down as *proven*, if any serious contradiction, try it again. These gentlemen of the Hole and Corner Club have settled sundry points to *their* satisfaction; but if tried on an adequate scale, general conviction would be the result.

After selecting the most important matters for full experiment, a list of queries should also be proposed, to invite observation and re-

fection, as well as to elicit information from such persons as may happen to know the proper answers.

A State fair for live stock, agricultural implements and rare productions, is necessary, as showing important results of labor and ingenuity in a pleasing and profitable way; as also to encourage association and more extended acquaintance among ourselves. But so far from being the chief object of our Society, I rather look upon them as necessary evils.

Should these views meet your approval and be carried out, I shall feel highly gratified; for I really believe that the talent and energy of our State thus directed and made co-operative, will do more to advance our science than the isolated and random efforts of "all the world beside." The advantage of a State Society to draw forth and diffuse what may be already known on agriculture is very great; but the above views seem to imply an absolute *necessity* for such an institution to insure any *progress*. They certainly afford the strongest argument I can conceive for the incorporation and endowment of our Society by the Legislature, as well as for its cordial support by all who are, or wish to be, improving farmers.—As soon expect an *individual* to build a rail road and drag the car himself, as to push forward the car of agricultural science alone.

Yours, sincerely,

THOMAS W. MERIWETHER.

February, 1852.

For the Southern Planter.

TOBACCO.

[Continued from January No. of Planter.]

In our first article upon this subject, we brought the crop up to the process of *hilling*, and this we recommended should be done *early* while there is "*season*" in the land. In a full crop this is often impracticable, and the planter is forced to depend for season upon the rains that fall after hilling. This should not change the shape of the hills. They should still be pointed and only so many cut off in anticipation of a shower as you have plants to fill. If cut off and allowed to stand for any considerable time the hills bake and require freshening up before being planted. Plants stand better in hills freshly cut off. It is a common error to cut off hills too high. An elevation of six inches above the common level is sufficient on ordinary land. Indeed we consider land unfit for tobacco that requires higher hilling. Wet spots, however, occasionally occur in land cropped in tobacco, which rather than leave unoccupied we plant, and do so by giving increased height to the hill. In advocating low hilling and priming, our friend Gilmer says, "it is better to have

bugs at bottom than at top," and we agree with him.

Planting with *too much season*, (upon red stiff land particularly,) is fatal to a crop, as clods are thus formed about the roots of the plant that no after cultivation can reduce. A safe rule is never to plant tobacco until the land is sufficiently dry to work with a hoe.

Many persons, (overseers particularly,) err in not allowing plants to attain proper size before setting them. Small plants may be used in *new ground*, but never in old land, except very early in the season, when the beds require *thinning*.

In planting it is only necessary to observe the following precautions: First, to insert the plant a little below the depth at which it grew in the bed—straightening the roots in so doing. Secondly, to press the soil well about the root; and thirdly, to avoid bruising the plant either with the stick in pressing, or the fingers in holding it. Then fold the leaves gently to the north, and place a clod or stone on the south side so as to shade the plant from the sun. This clodding is necessary except in long continued rains, when the roots will take hold before the sun kills the bud. A thunder shower is not sufficient to dispense with clodding; on the contrary the hill being heated by the sun, a sudden shower will scald the plant, unless protected, as recommended. The clods should be left on until the roots have taken hold, which is usually in from four to seven days, and then removed in the evening.

If planting be done late plaster should be applied to the bud as soon as the clods are removed, but if the crop be forward this operation may be deferred until the first of June. Plaster is indispensable to the tobacco crop—increasing its weight twenty-five per cent. When applied to the bud, a very small quantity is necessary—say from one half to a thimbleful. It is hardly necessary to say that missing hills should be re-planted. This, however, should be done as soon as possible, so as to insure an even crop, and it is better to get a perfect stand upon one land before you commence on another.

The amount and kind of cultivation depend so much upon circumstances, that it is difficult to lay down any general rules for working this crop. It is all important that tobacco land should be kept at all stages of the crop thoroughly *light and clean*. Of ordinary seasons, as a first working, we break the land, if free of grass, by striking three licks to the row with a new ground coultter—or if there be much grass, running twice with the coultters and splitting the list with a shovel plough, and then with hilling hoes scrape down the hills, covering up what grass the ploughs have left, and breaking the crust around the plant. In dry weather it is well to draw a little loose dirt about the root.

The next working we give with the shovel ploughs, breaking the land and covering up the grass, and follow with the hoes, drawing

the dirt to the hill, or "hilling up;" and if the plant be of sufficient size, "priming off" the lower leaves and putting fresh dirt about the roots. This will suffice for new ground, but old land will require another working, which is given with the *plough* and hoes, if the size of the tobacco admit of it—otherwise with the hoe alone.

The height at which tobacco should be "*primed*" depends upon the variety cultivated. We prime the Ruffie to about six inches. When the plant has attained sufficient size to give the proper number of leaves above this priming, it should be at once *topped*. This is done by breaking out the bud with such care as not to injure the top leaves, which are very delicate and easily injured by rough handling. Experience soon renders a hand expert at this operation, and it is well to leave it to a few hands who have acquired this experience. Like every other operation in tobacco topping should be done *in time*, as the smaller the bud the slighter the wound inflicted upon the stalk by breaking it.

Early plants on rich land may be topped to *nine* leaves, but we aim to bring the crop generally to *eight*, to which number we top until the 10th August, when we fall one leaf for each week.

About the 10th of August it becomes necessary to "worm and sucker" the crop once a week. Suckers should, under no circumstances, be allowed to grow longer than a man's finger, as their growth greatly exhausts the plant. Every planter should wage constant war upon the *tobacco fly*, and to this end we advise the cultivation about the house of the sweet or monthly honeysuckle, of which the fly is very fond. One of our neighbors, from a few bushes, destroyed several thousand flies last season.

As the tobacco plant ripens it thickens up, becomes brittle, (breaking when gently pressed between the finger and thumb,) and loses that peculiar fuzzy appearance it has when green. Experience is required in judging when a plant is ready for the knife. More persons err in cutting too green than in letting the crop stand too long. As a plant is cut it should be inverted over its own stubble and allowed to stand until the sun *limbers* it sufficiently to admit of its being handled without breaking the leaves, then collecting the plants, stack and cover with bushes, &c. so as to protect against sun-burning. It is well to freshen up the land on which tobacco is stacked to prevent *cod-dling*. The plants may either be hauled to the house and hung, or hung in the field, shingled down, and hauled upon the stick. We usually hang about *nine* plants to the stick, and place the sticks about eight inches apart in the house. We prefer housing the crop at once to scaffolding.

Having allowed the crop to yellow, we apply slow fires at first, and increase the heat gradually until about the third day, when full heat may be applied. The great danger in

firing is in applying too much heat at first. We think a better color is given by allowing the fires to go down at night than by keeping them up constantly. The firing should be continued until the stem is thoroughly cured up; and if the crop be allowed to hang in the house until warm weather, must be removed in warm damp weather to prevent mould.

WM. GARTH,
R. W. N. NOLAND.

Ivy Creek, Albemarle, Va.

For the Southern Planter.

COLIC AND BOTS IN HORSES.

The horse to the farmer is the right arm of his power, yet his diseases are the least known, and the least intelligent prescribe with confidence for all his ailments. There is, perhaps, not one of our domestic animals whose whole natural habits are so changed by his treatment. Instead of the green herbage and free air of his natural pasturage, he is confined to close stables, and fed upon heating and inflammatory food; hence in his domesticated condition, no animal is subject to such violent inflammations, which run their career to gangrene and death, with such fearful rapidity, that his health has been classed as one of the three most uncertain things, viz: "the beauty of a woman, the love of a boy, and the health of a horse." Whatever be the seat of his disease he has but one mode of indicating suffering. Thus a foundered horse will roll violently from the pain of spirits of turpentine poured into his feet, and with inflammation of his lungs he puts his nose to his flank. What presumption then is it to administer whiskey, spirits of turpentine, and a score of other inflammatory medicines to an animal already suffering from a dangerous inflammation of some vital organ. I have seen somewhere an allegorical painting of a physician represented as a traveller in the dark, his medicine a bludgeon in his hand, the patient his dog, the disease a wolf attacking the dog, and the physician laying on with his bludgeon, knocking over the patient as often as the disease. How much worse must the poor horse fare in the hands of brutality and ignorance.

Of horses examined by myself after death, one feeding heartily and apparently well at night and found dead in the morning, had suffered from violent inflammation of the stomach; the cuticular coat having extensively separated from the muscular—a second died from inflammation and gangrene of the large intestines—a third from inflammation and gangrene of the small intestines—a fourth from inflammation of the lungs. In every instance a destructive inflammation of some vital organ. Yet the practice in every case was to administer remedies calculated to

aggravate the inflammation. Horses have doubtless often got well in spite of these remedies—but with an animal predisposed to such inflammatory attacks, would it not be the more prudent plan to adopt another class of remedies. Bleed freely first, and then administer mild cathartics, with large doses of laudanum, to relieve pain, spasm or stricture. The effect of a large dose of laudanum is the reverse of a small one—it produces the most perfect relaxation. This remedy would be as efficient in colic, and would guard against its termination in inflammation. A weak solution of lye is often a safe and efficient remedy in this disease, the lye operating as super carbonate of soda.

Where the distension was such as to indicate a dangerous accumulation of air, the medicine for hoven cattle, viz. 2 drachms of the chloride of lime, dissolved in two quarts of water, to be repeated within an interval of an hour, if necessary, might answer perfectly well. The air generated in the stomach or intestines of the horse is the same as that generated in hoven cattle, viz. sulphuretted hydrogen. Upon introducing the chloride of lime into the stomach of the hoven animal, the chlorine drops the lime, unites with the hydrogen, and forms muriatic gas. This gas is absorbed by the water of the stomach and forms muriatic acid, its bulk being reduced a *thousand* fold; the muriatic acid unites with the lime and forms the harmless muriate of lime. Thus has science by her deductions introduced one of the most valuable of cattle medicines. This is no theory, but found in practice to be true in every particular. With cattle it should be administered by means of the stomach pump.

In Europe veterinary surgeons and physicians are educated with far more care to administer to their domestic animals than we often educate our physicians to minister to ourselves. They have there the same parasite, the bots or grubs that we have here, yet those veterinarians consider it as harmless. "The bots cannot, while they inhabit the stomach of the horse give the animal any pain, for they are fastened on to the cuticular or insensible coat. They cannot be injurious to the horse, for he enjoys the most perfect health, while the cuticular coat of the stomach is filled with them. They cannot be removed by medicine, for they are not in that part of the stomach to which medicine is usually conveyed; and if they were, their mouths are too deeply embedded in the mucus for any medicine that can be safely administered to effect them."

If the horse is opened the moment he dies, they are never found to have attacked the stomach. If he is killed suddenly in health and lies until he is cold, they are found always to have eaten through the stomach. The bots are licked off by the horse and carried with the food into the stomach, where they attach themselves firmly by means of a hook on each

side of the mouth to the mucus membrane. When full grown they pass out with the food, burrow in the ground and transform into the fly. When the horse dies and his food fails, it is probably instinctive in them to cut their way out. In a horse that had died from an inflammation of the stomach, the mucus coat having extensively separated, they were found gathered upon the sound parts which they had cut through, the inflamed portion having no trace of injury from them. In supposing that grubs are a disease of the horse, we have attributed effects during life to causes happening after death—and what nostrums have been forced down the throat of the poor horse to cure this imaginary disease, and with what confidence has the stomach, perforated after death by the grubs, been shown as the cause of death!

TH. J. RANDOLPH.

For the Southern Planter.

Mr. Editor,—The interest which has been awakened in different parts of the State, in behalf of the cause of Agriculture, has occasioned frequent calls for the form of a Constitution, adapted to the organization of local or County Societies, to meet which, I beg of you the favor to publish the annexed in the Southern Planter.

ARATOR.

Constitution of the Agricultural Society of the County of _____.

1. The style of this Society shall be the Agricultural Society of the County of _____; its objects shall be to improve the condition of Agriculture, Horticulture and Household Arts.

2. The Society shall consist of such persons as shall signify their wish to become members, and shall pay, on subscribing, not less than _____ dollars, and annually, thereafter, not less than _____ dollars; and, also, of honorary and corresponding members.

The officers of the Society shall consist of a President, six Vice Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer and an Executive Committee, to consist of the officers above named, and five other members, of whom five shall constitute a quorum. The payment of \$20 or more, shall constitute a member for life, and shall exempt the payer from annual contributions.

The annual contribution for membership shall be considered as due, and payable on the _____ day of _____, in each successive year.

The Recording Secretary shall keep the minutes of the Society.

The Corresponding Secretary shall carry on the correspondence of the Society, with other societies, with neighborhood clubs, and with individuals, in furtherance of the objects of the Society.

The Treasurer shall keep the funds of the Society, and disburse them on the order of the President or Vice President, countersigned by the Recording Secretary, and shall make a report of the receipts and expenditures of the Society at each annual meeting.

The Executive Committee shall hold stated meetings, and adopt particular regulations for carrying into effect the general objects and instructions of the Society; shall take charge of and distribute or preserve all seeds, plants, books, models, &c. which may be presented to the Society—and shall also have the charge of all communications designed or calculated for publication, so far as they may deem expedient, shall collect, arrange and publish the same in such manner and form as they shall deem best calculated to promote the objects of the Society.

5. There shall be an annual meeting of the Society, at such time and place as the Executive Committee may appoint, at which time all the officers of the Society shall be elected, who shall serve until their successors are appointed, and shall have power to fill all vacancies occurring by deaths, resignations or otherwise, until the next general meeting of the Society.

Extra meetings may be convoked by the Executive Committee.

Fifteen members shall be a quorum for the transaction of business.

6. This Constitution may be amended by a vote of two-thirds of the members attending any annual meeting.

For the Southern Planter.

GOOD MANAGEMENT.

Mr. Editor,—Permit me to introduce—through the columns of your valuable agricultural journal—to the attention of the farming public, the system and management, so plainly visible, on the premises of Daniel Jones, Esq. of James City. Having been afforded the gratification of visiting his farm, thereby receiving an ocular demonstration of his priority in agriculture, as well as the nurture of stock, I take the more pleasure in holding him up as a beacon, to guide his neighbors to that distinction and supremacy, that he has so meritoriously attained, by his uniring endeavors to improve in that science, the colors of which he has so gloriously borne. He has not only proved his loyal devotion to the cause of Ceres, but his pastures also stand unsurpassed. I have seen, coming forth from them, in unbroken phalanx, his herds of cattle, looking little inferior to those raised on our Western prairies. My attention was also directed to a group of young hogs, evidently showing the choice contents of the granary. Upon inquiry, I was informed that, for many years, Mr. Jones has been an unremitting sub-

scriber to the Planter, to which is doubtlessly attributable his success.

To those residing near him, I would say, examine for yourselves—and to those at a distance I would suggest, that they join me in an earnest solicitation to Mr. Jones, to appear within the Planter, for their edification and improvement. Then we may hope for a re-invigoration of our worn-out Virginia lands.

AGRICOLA.



THE SOUTHERN PLANTER.

RICHMOND, APRIL, 1852.

TERMS.

ONE DOLLAR and TWENTY-FIVE CENTS per annum, which may be discharged by the payment of ONE DOLLAR only, if paid in office or sent free of postage within six months from the date of subscription. Six copies for FIVE DOLLARS; thirteen copies for TEN DOLLARS, to be paid invariably in advance.

Subscriptions may begin with any number.

No paper will be discontinued, until all arrearages are paid, except at the option of the Publisher.

Office on Twelfth, between Main and Cary Streets.

POSTAGE ON THE PLANTER.

The following are the rates of postage on the Planter, per quarter, for the distances annexed—to be paid quarterly in advance:

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Over 300 and not over 1000 miles, 3½ cents.

Over 1000 and not over 2000 miles, 5 cents.

Over 2000 and not over 4000 miles, 6½ cents.

Over 4000 miles, 7½ cents.

TIMELY WARNING.

All subscribers who do not order a discontinuance before the commencement of the new year or volume, will be considered as desiring a continuance of their papers, and charged accordingly.

STATE AGRICULTURAL SOCIETY.

The Executive Committee met in Richmond on the 19th of February, and adopted a constitution and a scheme of premiums for exhibition. We shall publish such part of our proceedings as we deem interesting in our next paper. At present we have no room for them. The scheme of premiums we are particularly pleased with, and call attention to it now in advance of its appearance.

We learn that the application to the Legislature for an appropriation is very favorably received. We are glad to hear it, and hope we may not be put off with the excuse of hard times and heavy taxes. If the farmers of Virginia would only stir themselves, and write to their members in the Legislature, there could be but little doubt of our getting all we want. As it is we can but hope.

We are sorry to have to report but a small addition to the list of members of the Society. The farmers cannot be got to take the trouble to solicit subscriptions, and even here in the city of Richmond, where there are not less than one thousand who would join at a word if the thing was brought to their minds, we have less than two hundred. We hope the farmers can be shamed into something better.

PLANTATION AND FARM BOOK.

Mr. J. W. Randolph, the publisher, has sent us the Plantation and Farm Instruction, Regulation, Record, Inventory and Account Book, for the use of overseers; and for the better Ordering and Management of Plantation and Farm Business in every particular.

We have looked into this book, which is so arranged as that an overseer or the owner, if he chooses, can keep an accurate record of all his transactions and of all his stock, implements, &c. To men who mean to do this, as *all should*, it is a valuable work and will show them how to do it. But as farmers generally conduct such things, it will not be of much use, not from its defects, but from their own.

We hope that many farmers will buy the work, (it costs only \$2 for 103 pages ruled and otherwise arranged with great system, including many very valuable tables and general remarks,) and make an effort to keep things straight.

CORN—VERY IMPORTANT.

As many persons will have thinned their corn before the May number of the Planter can reach them, we advise our readers now to leave a part of their crop only partially thinned, for the use of the hogs. Let them leave at the rate of an acre for every thirty hogs, the corn to be cut up and fed whole to the hogs, stalk and all, as soon as they have gleaned the harvest field, or before, if they cannot be put into it. This is no theory—the best farmers in the State have practised it for years. It fattens hogs in the summer, saves corn, and is both cheaper and better than root crops. We have tried it for eleven years, and never regretted it. We shall speak of it again in May.

ADVERTISEMENT.

We have nothing to do with the advertisements of the Planter. We make not one cent by them, and make it a rule to recommend nothing that we do not approve, whether advertised or not. But as some complaint has been made, we beg leave to present the explanation of the proprietor. Mr. Bernard says that so long as the subscription list is as meagre as at present, he cannot afford to reject advertisements. The Planter is now larger than it was at first, though the price has not been increased—more than a third larger—and it is half the size of the old Farmer's Register, which cost five times as much money. We are daily receiving letters of encouragement and approbation, and shall try to keep up to the high standard we have adopted, but we shall be compelled as a *revenue measure* to insert advertisements. We shall, for the most part, however, only put in such as are connected with the farmers' interests.

Our list of payments is published in the Planter because it saves postage, either to the subscriber or the publisher. Whenever a subscriber desires a *receipt*, he can get it, but he will have to pay postage. Postages are a heavy item in a newspaper office.

We ask attention to the communication of Mr. Richardson. It alone is worth to those who seek to improve, ten times the price of the Planter.

CORRESPONDENTS.

Several very good communications on hand are unavoidably delayed. They shall appear in their order.

For the Southern Planter.

MANAGEMENT OF A FARM IN PRINCE EDWARD.

"He who by the plough would thrive
Himself must either hold or drive."

So said Benjamin Franklin, a great practical man. In this part of Virginia, where the lands are poor and the people not the most skilful in managing them, I, on my part, determined from early life to manage so as to make up by energy, economy and neatness in executing my work, the deficiencies of my land in rich and valuable qualities; and unless I am much mistaken the individual who fails to act upon this principle, whether in Virginia or elsewhere, must see his property rapidly diminish in value, and finally change hands. By birth a Virginian, and even believing that I live in a land possessing as many or more advantages than any State in the Union, I have, with an onward march, a steady course, and a never-tiring disposition, worked out faithfully whatever I undertook to do, and will hold on to the old ship until she sails right; aiding, in my humble measure, in the great and good work of *reform*. When passing through many parts of this country, I view the work of our ancestors, the fields made barren by their reckless mismanagement, for a moment I am filled with doubt and overcome with gloom and sorrow, and ask myself "can the work of reform be carried out so as to stimulate the youthful sons of Virginia to remain and lend a helping hand, or shall we by our bad example, continue to spread desolation and ruin, quietly folding our arms, and making no effort to check the current of emigration rapidly rolling on in pursuit of Western treasures?" Those who change their residences seek to benefit themselves thereby. Yet how often do we see this fair and glowing Western vision melt into gloom and ruin. True, many succeed; but such might attain the object of their ambition here as elsewhere. When once a change in Virginia management shall become apparent, and the current of public opinion shall set in this direction, then will a check be given to the restless and wandering spirit of emigration; then, and not till then, will Virginians settle down permanently and lend a helping hand to the great work of reform. I speak from experience. Virginia presents the greatest attraction to her sons; nothing is wanting but energy, a determination to go to work, and when once embarked in the good cause, not to spend a shilling where only ninepence has

been made, but to lay up something yearly; and never to cultivate five acres of land to make five barrels of corn when one will do the work; never to fatten twenty hogs for two thousand pounds of pork when ten will make the quantity; never to spread twenty loads of manure over two acres of land when it is not more than half enough for one. Let us try and work upon this principle, and we will make more money, improve our lands faster, live better and enjoy every thing around us, and the home we once thought of giving up to the stranger as worthless and uninviting will become a pleasure and a joy to us.

The above is a preface to a statement of my management of land and manures, and a partial account of my mode of cropping, &c. which a friend has requested me to send you. It may not be improper in me to do it, whether I shall be received familiarly or not by the more enlightened and skilful farmers and planters of Virginia, for it is a very poor flower that the bee can gather no honey from.

My principal crops are tobacco, wheat and oats; each crop being yearly turned into money as soon as it can be done, except enough wheat for family consumption and seed. The oat crop being valuable is likewise sold, except seed. I cultivate small crops of corn upon the three-field system, and never fail to make enough and some for sale; in fact, I try to sell something of every thing I raise. In the commencement of operations on my farm where I now live, seven years ago I laid off for tobacco and wheat, (my corn land being generally seeded in oats and the best parts in wheat,) seven lots, each being manured when put in tobacco. I generally seed three in wheat, one after tobacco and two on clover fallow, never permitting my lots to remain in clover for wheat but one year. But the lot designed for tobacco remains one year longer, as will be seen by the following diagram, illustrating the rotation:

No. 1.—1st year tobacco and wheat; 3d year wheat fallow; 5th year wheat fallow.

No. 2.—1st year wheat fallow; 3d year wheat fallow; 6th year tobacco and wheat.

No. 3.—1st year wheat fallow; 4th year tobacco and wheat; 6th year wheat fallow.

No. 4.—2d year tobacco and wheat; 4th year wheat fallow; 6th year wheat fallow.

No. 5.—2d year wheat fallow; 4th year wheat fallow; 7th year tobacco and wheat.

No. 6.—2d year wheat fallow; 5th year tobacco and wheat; 7th year wheat fallow.

No. 7.—3d year tobacco and wheat; 5th year wheat fallow; 7th year wheat fallow.

Should either of the lots become foul with cheat or cockle, it can be easily remedied. When first heading out, a single hand with a scythe in a few days can remove all noxious and unwelcome visitors of this kind. As my little means and hands increase, I enlarge the size of each lot. Having carefully selected the best soils for these crops, good barns are

built and located conveniently to the lots immediately on the side of the farm roads.

I find I cannot get on well without directing much of my time and attention to the subject of raising and applying manures. With regard to the latter I differ very much from many men called good managers, for I contend that all, and particularly farm manures, should be kept as near the surface as possible. I may be mistaken, but practice and experience have been and are my daily guides, and it would seem that any discriminating mind could readily see the superior results of that mode of application.

All manure raised after lot No. 1 has been manured and hilled up—the same having been completed by or before the first of May—is conveyed to lot No. 4. No. 1 being manured and hilled for tobacco, No. 4, designed for tobacco the second year, and Nos. 2 and 3, designed for wheat, as is No. 1, after the tobacco crop. I continue to carry off my manure through the summer and fall up to the first of December to lot No. 4, and spread and couler in when deposited, much pains being taken in spreading, and the heaps never being permitted to remain long unspread. After the first of December I cease to haul out manure, and break up that part of lot No. 4 not already manured, with three-horse ploughs. The rotation having been thus completed, as seen by the diagram, I return the eighth year to No. 1, for tobacco and wheat, as before. The whole surface having been manured welcomes me back, and I manure it again, with the promise of a better yield, both in tobacco, wheat and clover; and so on with the rest. By this rotation, continued from year to year, any estate may be redeemed.

After the first of December my cattle are brought to the farm-yard immediately in front of my stable door. The yard has a southern exposure, and ricks are made in it for straw or other coarse food: cornstalks and straw are deposited as fast as the cattle can trample them, the stable manure, with the aid of the mould of the earth, ashes, &c. being carefully spread every week over the entire farm-yard. This operation continues to the first of April, when the entire mass is formed into one bulk. When it begins to heat it is removed as quickly as possible to that part of the lot not manured by the first of the December previous, the land having been first well harrowed over. The summer and fall manured land, including cow pens, &c. being crossed with coulters, is harrowed in like manner. After which, instead of turning under any part of it, the whole lot is bedded with three-horse ploughs, then hilled into large hills, keeping the manure as near the centre and foundation of the hill as it can be done, and avoiding clay to much extent in the centre of the hill.

Summer cow pens are a part of my summer and fall manuring. Each of these, as often as a new one is made, is broken up with a two-

horse coulter, and lightly top dressed with chaff or wheat straw. Either aids very much in mellowing the land after being trodden, and by their use the pens can be removed sooner, so that a larger surface can be manured. All land manured in this way makes fine crops and is left by them in fine condition, though not better than from the summer and fall manuring. Grazing, except at certain seasons of the year, I am opposed to. At those seasons the cattle, though few in number, are kept in the farm-yard; plenty of litter is provided for bedding and a shelter to protect them from the sun, in which way manure may be raised rapidly. I am very much inclined to think every farmer should adopt this method as much as possible. The manure I raise in this way is heaped and deposited before the first of December.

Some of your numerous readers may ask why scatter stable manure over the farm-yard? Because I think it the very best use I can make of it. Were I not a raiser of farm-yard manure, surely I would take off the stable manure to the land designed for a crop as fast as it was made. How often do we see a failure of crops from ordinary manuring, and particularly on thirsty lands in moderate seasons? The tender plant requires something to feed upon better adapted to its condition than coarse manure. I would as soon expect a newborn infant to eat bread as a tender young plant to take root on ordinary farm-yard manure, unless there should be a wet season, which is apt to give a poor crop.

My straw, stalks and chaff being about as much as I can turn into manure, I do not use leaves, which I think a very poor thing. My fodder, hay, oats, straw, chaff, &c. are all stacked on the lot intended for tobacco the next year. In handling these articles and hauling them from the stacking place there is an amount of loss and shattering which will improve two or three acres yearly. In the course of thirty years I have thus enriched from sixty to one hundred acres, which aids very much when manure is scarce. True, I run some risk of fire, lightning, &c. but I am willing to take it for such a result. Besides, nothing looks more ridiculous or slovenly than stacks all about on the farm.

I plant my tobacco as soon after the 1st of May as the plants are ready, never waiting for a season. Unless the beds are to dry, the hills are ready with a good season as soon as my hilling is completed. So soon as a stand is obtained, the entire crop is "sided" with the one horse Dagon plough and "scraped down," a quick operation. When the plant starts to grow, with the same plough I throw back the furrow and hill up, and repeat the operation as rapidly as it can be done, running the hill up of a good size, and of a sugar loaf shape. I avoid late workings, prime low and top to eight, nine and ten leaves, so as to have a uniform crop. By priming low and turning the hill up, as directed, the moisture is re-

tained, and heavy and long continued rains pass off without firing the crop. Much good results from low priming—the crop matures sooner, is much richer and more leafy. Should the grass put up the latter part of August and 1st of September, let it come. In the case of the best crop I ever made, the crab grass grew very bold and headed out, and my neighbors asserted that my crop was terribly set in grass. So it was; but by design. That crop ripened finely. The last, being a wet year, grass aided very much in checking firing. In dry seasons grass will not interfere, and in wet one's it will produce no injury, but a great benefit. But on light, quick, gray lands, should the crop be a late one, adopt different management.

For fallowing wheat lands, I consider July and August the proper months. I never use the subsoil plough, but break up with a three horse plough, and re-fallow with the same. I prefer seeding from the 1st to the 20th of October, but rarely ever get done so soon. I like best a soil with a slight mixture of clay, and a good crop of clover, and weeds well worked in and brought near the surface. I keep the seeding up with the re-fallowing. I cover with drags; after them follow the hoes, distributing all turfy matter, breaking clods, &c. and levelling off all and every impression of the drag teeth, leaving the entire field as neat as the best cultivated garden. On all light, gray lands, unless too rolling, after seeding, (or before if likely to rain,) a careful ploughman, with the aid of a boy, lays off water furrows 13 feet wide. This is done with a two horse Dragon plough, its point two-thirds worn—any other not so much worn will throw up wheat and leave none in the bottom or side of drains; hand rakes are made for the purpose, and each furrow is raked back as laid off, consequently the wheat is not left in heaps. In order to check the force of water all lands laid off are angled, and each angle aids very much in doing so after heavy or long continued rains or snows. Should any washing appear, I use wheat straw in the place trodden in with the foot, which is all sufficient. I never make a gully, but try to stop all I can. I am opposed to hill side ditches, except in certain localities, believing that much injury results from them on light lands, particularly if they are half cut, and not attended to, as is too often the case.

The tobacco land is prepared and seeded in the same way as the fallow; and as much pains are taken in seeding oats. The scythe-man can thus perform a better, easier and nicer day's work, and save the grain better. I cut close to the ground, whether the crop is heavy or light, and tie up in bundles.

For corn, the land after being ploughed is well prepared by drags. I never plant early; generally a month later than my neighbors; and by no means until every tobacco hill has been made. My work is then fairly before me and under my control, and every crop can

be kept in good order. Besides, corn late planted comes up and grows off much better, and gets out of the way of birds, worms, &c. much sooner, they having more to feed on. The past crop I did not finish planting until the first week in June, and never had a finer; true I had the advantage of the late rains. In planting I lay off the rows five feet apart, with a two horse Dagon running twice in the furrow, so as to open it as deep as the plough will cut, then sow guano along the row, at the rate of 200 lbs. per acre. A three-tooth harrow, with the front tooth out, will cover the guano deep enough; and after that, the corn is dropped and covered with the foot or hoe. Except in a very dry season, a good crop will be the result. The cultivation is done with harrows as much as possible.

I never make less than two hogsheads of tobacco to the hand, generally about three plants to the pound, except in difficult and bad seasons. I have increased my wheat crop since 1844, without the aid of guano, from 220 to upwards of 1200 bushels, though I seed only 20 more. Ten years ago my place did not yield 150 bushels, and none for market. Then it was a wreck: the assessor's books will shew whether there has been any improvement. I feel it and enjoy it, whether the books shew it or not. For the last five years my land, negroes, teams, &c. including every expenditure, nett me over ten per cent.; and my family enjoys a fair living in the bargain. During this period one crop was lost by hail and fresh, which was not balanced by the very high price obtained for the last.

I keep no overseer at home. I am by them as an old bachelor was by the girls. Being asked why he did not marry, he replied, "such as I would select to make me a good wife would not have me, and such as would have me are not worth having." So it is with myself and overseers.

H. G. RICHARDSON.

Prince Edward, Feb. 2, 1852.

For the Southern Planter.

DRAINING.

Mr. Editor.—In my last, I promised you a communication on the subject of draining. I now proceed to redeem that promise—promising that, as I had resolved to "mend my ways" before the receipt of your private philippic against all villainous promise-breakers, generally and specially, you need claim no credit to yourself, for the tax I shall frequently attempt to impose on your readers.

In the system of husbandry pursued in many districts of our country, a striking defect, and one, on various accounts inexcusable, is the neglect of and apparent indifference to proper drainage. It would be interesting to ascertain the quantity of land on our farms

not brought into cultivation, as also the quantity cultivated, but producing only a fourth or half crop from excess of moisture, and the probable annual products, if reclaimed by a judicious system of draining. A comparison of the profits of such lands in these two conditions, their superior fertility and increased facility of culture in the one case over the other, would readily indicate the importance of the subject.

By far the greater portion of the branch flats of our Piedmont district, was once very poor. Of this, we have abundant evidence in the traditionary history of the country, as well as in the character of what is now the subsoil. Originally the surface of these flats was composed of a tenacious, whitish clay, or of an admixture of clay and gravel almost impervious to water. Besides the often feeble but perennial springs found in these locations, and having no regular outlet, the rain water from the hills, gradually finding its way along the veins of rock or gravel, till they terminate on the beds of clay on the margin of the flats, issues forth in innumerable springs from the base of the hills, saturates the flats and forms unsightly and unwholesome bogs and marshes. The original settlers of the country, scarce of labor and having an abundance of rich lands, employed these *wet lands* as the convenient receptacle of the rubbish and useless timber of the adjacent slopes, thereby greatly expediting the heavy labor of clearing the land of its original forests. In the reckless mode of cultivation, then in vogue, of the surrounding hills in tobacco and corn, immense quantities of the richest virgin soil were washed down from the uplands by heavy rains, and spread over these flats. The annual decay of the luxuriant vegetation thus induced by these rich deposits, and the constant accession of additional mould from the hills, have, in process of time, formed a highly fertile alluvial soil to the depth frequently of several feet: effectually covering up and concealing many of the springs at the base of the hills, as well as those in the body of the flats. But these springs nevertheless exist, and the water discharged by them is found in or upon the subsoil, at depths varying with the depth of the alluvial soil. Hence it is, that, in very many instances, where the surface is apparently sufficiently dry to produce heavy crops, as soon as the growing plant has attained sufficient strength to send forth its roots to a greater depth in search of food, it comes in contact with a saturated subsoil, or the earth is kept too cold by evaporation, proceeding from the proximity of too much water, and the plant assumes a yellow sickly appearance, from which it rarely recovers. Hence, also, the necessity of deeper drains in such localities amongst us than in almost any other section: for if the hard pan or stratum of clay and gravel that, in all cases, under lies the alluvial deposit is not penetrated, the labor of draining is rarely remunerated. Presuming

that the character of the subject on which we are to operate is now sufficiently understood, we proceed at once to the task of reclamation.

The first and most important consideration, in surveying a flat with a view to thorough drainage, is the location of the principal ditch, into which the various small tributaries are to be conducted. Upon this often depends the success of costly operations. Its position should always be determined with reference to the lowest points—with as few angles or curves as possible—with depth sufficient to vent ordinary freshets, acting at the same time as a drain, and with all the fall of which the nature of the ground is susceptible. Having completed this as a base line of operations (and it will generally be found most judicious to draw it on one side or the other of the flat, as it thereby intercepts and receives at once all the springs on that side,) all other drains necessary to be made, should commence on this. These, it will invariably be found, should be extended to the base of the hill on the side opposite the main ditch, and sometimes intersected by others extending along the base of the hill, so as to form a diagram resembling the letter T. The depth of these lateral and cross ditches should be regulated according to that of the main one—the depth beneath the surface of the clay and gravel subsoil, (which should always be cut through,) and the degree of fall. The deeper they are the better, always observing to maintain a gradual and even descent to the main stream. In the beds of these cross sections, when completed, pure clear water, which before had no vent, will be frequently observed to boil up more or less boldly; and also on the sides, from between the loamy soil and clay subsoil, it will be found trickling into the ditch, discolored, and resembling the deposits from Chalybeate Springs. It is the latter chiefly, which is so fatal to growing crops, even in locations where the appearance of the surface gives no indications of its presence. My observation has led me to the conclusion that these cross or diagonal drains, at intervals of from twenty to forty yards, when effectually made, thoroughly reclaim all such lands, rendering them with good tillage, highly productive in corn, wheat and grass. It is sometimes exceedingly difficult in low, boggy marshes, to determine the precise location of a spring, from the quantity of water present at all seasons, on the surface. In many such, a dozen ditches, none of which happen to strike on the spring, may prove unavailing. The desired spot can always be ascertained and much unprofitable labor saved, by a careful examination in very cold weather. At such seasons, the water passing slowly through and over the mud becomes chilled, and freezes, except immediately over and around the spring. A stake set up at this point, designates the line of future operations. In many situations on our flats, this white clay soil, owing to peculiarity of location, is entirely

free from deposits from the adjacent hills, and is invariably poor—extremely retentive of water, and unimprovable by ordinary applications of manure. When thoroughly drained however, by intercepting latent currents and affording means for the rapid transition of rain water, the soil very soon assumes a darker complexion, becomes more friable, and by a light application of lime and manure may be made highly productive; but, without either, is greatly improved.

Open ditches in a soil upon which frost acts powerfully, should always be cut very sloping on the sides. One three feet wide at top need not be more than twelve or fifteen inches at bottom. By thus concentrating the current, casual obstacles are washed out and the formation of hammocks prevented. A due regard to neatness of appearance, as well as economy of soil and labor, requires that all lateral and cross drains should be covered. And it will always be found conducive to the strictest economy to perform the work of covered drains in an effectual and lasting manner. The depth of these drains will of course vary according to the situation of the ground; but whenever practicable, and the fall will admit it, they should be from thirty inches to three feet deep, and from eight to twelve inches wide at bottom, according to the material which is to compose the underdrain. In England and Scotland, where underdraining is carried to greater perfection than in any other country in the world, pipe tile, a very simple and not costly material, has superseded almost every other mode. In this country, however, this device has been but very partially introduced, and the most common materials in use are pine poles and rock; either of which answer a good purpose if skillfully disposed. Poles being less durable, should be used only where suitable stone cannot be obtained. They should be straight, from three to five inches in diameter, to suit the width of the bed of the ditch; one on each side, and a third resting on them, so as to cover the aqueduct between them, which should be an open space equal to a curve of three or four inches. Any unavoidable openings between the top and side poles, should be chinked with split pieces of timber, to prevent the entrance of obstructions, and the whole covered a few inches with dry leaves, straw or sod. The drain is then completed—requiring only the earth to be drawn in and securely pressed down with the feet. Another excellent mode is, to break the stone into small pieces from one to two inches in diameter, and to fill the ditch with them to the depth of ten or twelve inches, covering it as in the case of poles. Through this bed of stone, the water finds easy access into the drain from the sides and bottom, and readily passes off into the main stream. The most common method when stone is employed is, to line each side of the ditch with suitable rock, resting firmly on the bottom, and to cross lay this with long flat pieces extending

across the ditch. This mode leaves a vent for the water similar to that between the stones, but in this as in that case, care should be taken to secure the openings against the admission of obstructions. The plan which I usually adopt is, to combine the advantages of the two methods last described by filling in on the rock culvert with five or six inches of small stone, so that, should the open vent from any cause become obstructed, the water can still find its way through the small stone without damming, and being forced to the surface.

In conclusion, I will submit a single suggestion farther. Our open ditches, once made, receive little attention afterwards, till the field adjacent is brought into regular cultivation. During this interval of neglect, (a period from two to five years,) they are partially filled up by the sliding of the banks, by dry weeds and grass, and by hammocks, formed in the first instance by very slight obstructions when the stream is low—thus increasing the labor of cleaning them, causing overflows, and choking the mouths of the underdrains—rendering them frequently useless. Now a little timely care may entirely obviate these difficulties. Immediately after heavy showers or freshets, when the current is very strong, a careful hand with a hoe should pass quickly down the streams, removing hammocks and other impediments. This will give increased velocity to the swollen current, which will more readily wash out the sediment that may have formed, and render the stream less liable to future obstructions. The time thus consumed would be insignificant compared with that ordinarily required to effect the same object and the work infinitely better done.

J. NEWMAN.

Feb. 11th, 1852.

For the Southern Planter.

LIME.

Mr. Editor.—The subject of lime is one that claims the attention of the farmer at the present day—and like all other subjects is liable to abuse in its application, and is susceptible of criticism and investigation. It is stated and proven by analysis that lime enters into the composition of all the crops which we cultivate, but to what extent is not known to the great mass of farmers, nor will they be able in this generation to ascertain the fact. This being the case, it will be found necessary to avail themselves of all the light which may be gathered from the laboratory of nature, reason and experience; but there is a lamentable fact, which needs nor the light of philosophy to explain, that men are so wedded to their opinions, and attach so much importance to self, they are left to leave the old paths in which their fathers have trod. In

the year eighteen hundred and thirty-seven, I luckily fell in with the Essay of Mr. Edmund Ruffin on Calcareous Manures; being delighted with the work I made it a matter of study; but theory without practice is dead, being alone, as one in olden times stated. Says he, "show me your faith without works, and I will show you my faith by my works." Thus I commenced the application of lime, and have continued it to the present day, and expect to do so as long as I shall remain on terra firma. I hold lime in the highest estimation, and the true basis of all farming operations: yet I do not view it in the light that many do. After years of practice, I view lime in the very light of Mr. Ruffin, that it is not a manure, but a corrective of acid, and decomposer of vegetable substances; and although after an application of lime, some crops seem to luxuriate as though they had been living on the fat of the land, only proves that the disorder has given way and obstructions have been removed by the application of lime. I have not discovered the increased growth anticipated by others, but have generally an increase of perfection in weight and measure; it is generally the case that persons unacquainted with lime use it too freely. In this country and Europe there are some who advocate from two to five hundred bushels to the acre, and I am willing to give the credit for their opinion. My experience would not allow me to use more than fifty bushels to the acre; and I am fully satisfied that ten bushels of strong quick lime will be more than any of our cereal crops will consume, even though it were known by analysis that they consumed more; and at this period of my communication I will state an original idea, which is this, does not the preparation of a substance, and the analyzing of that, in some way or other change its nature? To be plain, does not the burning of wheat straw and like substances change their nature? I am not prepared to say it does, or does not. Yet I am prepared to say, that the action of fire does change the entire nature of other substances, and they cannot by any process be brought back to their original state. I should be glad to see this question answered. From the above premises my conclusions are the following: and first, as we, the farmers of Virginia, have no surplus capital, it will be to our advantage to make an equal distribution of what we have, and instead of applying fifty bushels of lime to the acre, apply twenty, which will be sufficient. We shall get over our fields much sooner, and can commence a second application, which should be done every third year. Another important item with the farmer is time; and it is the hobby upon which many ride to ruin. Well, we will try to inform our friends how to save time. One of the great ways is to spread every thing you haul out in the name or shape of manure from the cart. Of course we do not suppose that any one has such a thought as to drop lime in heaps—

if they do they are twenty years behind the times—and I fear, circumstances being equal, they will remain so. Manure may be spread from the cart perfectly regular. It will never be done so if dropped in heaps. Should the manure be coarse, pitch forks should be used—if fine, long crummy shovels. My lime spreader stands in the cart and can spread almost to perfection ten corn rows at a time. I have never used any other than shell lime. I have green poles cut to form the outside of the kiln—commence by laying three logs on the ground, at equal distances, to give good ventilation. Lay a bed of good dry wood—then notch four poles as for a hog pen—fill in with shells, and so on to the top. When the kiln is completed, it will be found best to set it on fire at the commencement of a moderate rain—the water keeps down the heat. When the kilns are burnt commence hauling. Do not wait for rain or air to slack the lime. Throw on a few buckets of water, and in a few minutes you will have a load slacked. When the cart leaves throw on a few more, and so on, and you will have nice, dry fine lime, and you can lime your land as it ought to be done.

I leave the subject for the consideration of those who may think it worthy their notice.

C. C. S.

Northumberland Co., March 1, 1852.

For the Southern Planter.

MANAGEMENT AND APPLICATION OF MANURES.

Mr. Editor.—It was an apothegm of the ancient Jews "that no man discharged his duty to his country, who died without having planted a tree, built a house, or left a child behind him." And I think, if applied to the tiller of the soil in our age, that it might be appropriately improved by adding, and without having "made two blades of grass to grow where but one grew before."

The writer has been farming some six or seven years, and during that time has been a close observer of all its operations, with a view not only to its immediate profits, which have always been remunerating, but also to the improvement of his land. And it is with the hope of being able to assist some of his younger brethren of the plough, that he ventures to appear in the pages of your journal, with a few general suggestions on what he conceives to be the best management of manure and its most economical application.

The farmer wishes the quickest returns for his labor, and no small portion of it would be occupied in making manure, if the returns from it were generally as quick and as remunerative as they can be made. But he cannot afford to wait for years before reaping the advantages of that labor. And if the manure

should be spread upon grass, in the spring, for fall fallow, it will be two years before it can pay more than the improvement to the land. And if left in the farm-pen during the summer (as is too often the case,) to spread upon wheat in the fall, the loss will be great and the returns from it no sooner, and not so much. But if properly prepared and in time for a summer crop, and the greater part of it can be, it is worth almost as much as stable manure for corn and tobacco, will produce a good crop of wheat after the corn, and secure a good, healthy stand of clover. We endeavor always to have our farm-yard manure moved early in March to the field upon which it is intended to be used, and there composted with the manure from the horse stables, cattle stalls, &c. by first spreading down a layer of farm-pen manure, about twelve feet wide, twenty-four feet long and eight or nine inches thick, and covering this over with a few bushels of charcoal dust, if it can be obtained, or the ashes from coal kilns will answer by increasing the quantity; then a layer of stable or other rich manure three or four inches thick; to be well dusted over with plaster. The pile should now be chopped over with a grubbing hoe, in order to mix the manures. Then commence again with the farm-pen manure, and continue as before until the heap is four and a half feet high, and about eight feet on the top. In a month the whole mass will be equal to stable manure, and if the season should be dry, will produce a better crop. We have occasionally had to reverse the heap, from fear of too great heat, but not often found it necessary. Hogs should not be permitted to run to them, as they would tear them down, and very much retard putrefaction.

After cleaning out the farm-pens, they should be again well littered with leaves, weeds, corn-stalks, straw, woods mould, &c. to at least one foot deep, to absorb the liquid excrements of the cattle, and to be composted again later in the spring. Any coarse manure that cannot be reduced to a proper condition for the summer crop may be spread upon young clover, or on the field intended for fall fallow as soon as the cattle are off of the yard.

I am aware that in some of the remarks that I have made, that I have run counter to the views of some of the best practical farmers of our country. This, however, although I may regret it, I could not avoid without laying aside my own experience.

I first adopted the system of composting all of my coarse manures in the spring of 1848, from the circumstance of having used a large quantity of farm-yard manure the two previous years for corn, turning under a part of it and spreading the rest on the surface, without, in either instance, having experienced, apparently, any benefit to the corn crop, and but a very slight improvement to the succeeding crops of wheat and clover.

I accounted for its want of action from the fact that decomposition was very slow and not sufficient, at any time, to generate the am-

monia, of which its nitrogenized matter was susceptible of being converted into, or to evolve in any active form, the fertilizing principles contained in the matter of which the manure was composed.

Influenced by these views, I have, for the last four years, composted all of my coarse manures, with the view of promoting more rapid decomposition. And in this way of preparing from the crude material, a fit food for plants, of easy assimilation by them and ready for their wants, without, in any instance, having met with disappointment in the value of manures in this way.

In composting manures containing much animal matter, care should be used to avoid making the heaps too high, as the heat caused by too rapid fermentation, together with heat possibly evolved by the absorption by the water in the manure of any free ammonia that may be extricated, would become so great as to defeat the object in view, and not only vaporize all of the ammonia, but leave a pile of dry, burnt material, scarcely worth hauling.

In order to furnish a sufficient quantity of sulphuric acid to form a fixed, but very soluble salt with the ammonia, plaster should be used abundantly, and charcoal dust to absorb the gaseous elements of the manure should not be omitted. We use plaster with all of our manures, and think to advantage; but would prefer not to use it with guano, which contains, already formed, the carbonate of ammonia, and not being subject to the ordinary influences of our decomposing vegetable-animal manures, ammonia is not so liable to be driven off; but when mixed with the earth it unites with an additional equivalent of carbonic acid, forming a bi-carbonate, much less volatile than the carbonate, and not nearly so soluble as the sulphate, which dissolves in three times its weight of cold water, and is therefore liable to be carried off in solution whenever much water falls to the earth, and which, I think, accounts readily for the want of action from guano in many instances when mixed with plaster.

That the carbonate of ammonia in guano, when mixed with the soil, becomes a bi-salt, much more permanent in the air than the carbonate, I think does not admit of a question. It is well known that the carbonate of the shops, or more correctly the hydrated sesqui-carbonate, (consisting of three equivalents of acids, two of ammonia and two of water; and this is the form that it exists in guano,) by exposure to the air, or by careless keeping, becomes a bi-carbonate, (consisting of four equivalents of acid, two of ammonia, and two of water,) almost inodorous, and requiring eight times its weight of water to dissolve it.

But the advocates for mixing plaster with guano, in their sanguine efforts to fix the ammonia, seem only to have dreaded "aerial excursions," by the volatile salt, without once having their attention drawn to the greater

danger of aqueous voyages (if I may be allowed the expression) of the fixed salt.

But in the putrescent manures made on the farm, the ammonia is liable to be decomposed and disengaged by the heat caused during fermentation, and would finally make its escape in the air, if it were not by some acids having an affinity for it. And the most convenient as well as the cheapest for this purpose, is the sulphuric acid contained in plaster. The muriatic acid of common salt would prove equally efficacious as a fixer, forming with it the muriatic of ammonia, called in commerce sal-ammoniac, which is quite as soluble as the sulphate, and can possess no advantages over it; and is therefore objectionable on the score of cost.

The manure pile being the prime source of agricultural success, no spare time should be unimproved in collecting materials for compost-heaps, such as woods mould, ditch bank, the mud thrown in piles the year previous out of old ditches, the scrapings from fence corners, the ashes from coal-kilns, &c.; and hauling them together in quantities sufficient to make a pile twelve feet wide, twenty-four feet long, and five feet high, with the addition of manure from the horse stables, cattle stalls, hog pens, &c. Experience at home and observation elsewhere, have fully satisfied me that such beating manures should never be spread immediately when taken from the stables, but always to be used for making compost-heaps. And if properly made, one load is worth more for any crop, will last longer, and secure a better stand of grass than the same quantity of raw stable manure.

A sufficient quantity of material being hauled together to form a heap—when the stables want cleaning out, the manure should be carried immediately to the pile and composted, by first laying down a layer of woods mould six inches thick, and covering this over with five or six bushels of charcoal dust, or double the quantity of ashes from coal-kilns; then a layer of stable or other rich manure, three or four inches thick, and sprinkle that with plaster till white. Commencing again with the wood mould, ditch bank, &c. mixed together, spread down another layer as before, six inches thick; throwing over it the charcoal dust—then the manure and plaster, continuing in the same manner until the pile is five feet high and about eight feet across on the top. We use about two bushels of plaster in a heap of the given size, and always finish the pile when commenced before quitting it, and sometimes make them smaller, being governed by the quantity of manure in the stables, and prefer to make the heaps in moist weather, as they are ready for use sooner than if made of dry materials.

In a month or six weeks, you will have a pile of fertilizing matter, equal in bulk to three times the amount of stable manure used to make it; and worth more than three times as much. When used, compost heaps should

always be cut down perpendicularly, in order to keep the manure well mixed.

Stable manure used in this way loses none of its ammonia. There is no smell about the pile, and when open for use it is perfectly sweet.

Another fruitful source of manure, if properly attended to, is about the kitchen and cabins. Keep woods mould hauled convenient to these places, and have the soap-suds, lye and other waste waters, the leached ashes, yard sweepings, scrapings from the wood pile, cleanings from the hen house, &c. &c. all thrown together upon it, with a few bushels of charcoal dust, and occasionally sprinkled with plaster and stirred over.

The quantity of manure made in this way, would surprise any one who has never tried it. It is the richest and most permanent manure that accumulates on the farm; and, withal, keeps such places clean and sweet, and obviates a noxious source of disease. It should, therefore, meet with the favorable attention of every one, as the means not only of increasing the products of their fields and gardens, but also as conducing in no small degree to the health of their families.

The wheat crop of late years is too precarious, to justify the farmer of limited means to make large investments in guano, especially at its present prices. And if he would avail himself of the means around him, and exert his energies a little in making manure, he will find the inducements to purchase it to grow less every year, will save his money for other useful purposes, and not lay himself liable to be imposed upon with an adulterated article, as the writer was last year in the purchase of a small lot of Peruvian guano, which was, as he verily believes, more than one-fourth common salt. I have learned that one of my neighbors was similarly imposed upon with the adulterated manure.

JAS. A. REID.

Madison, February 5, 1852.

For the Southern Planter.

THE LIVINGSTON COUNTY PLOUGH.

Mr. Editor.—After some reflection on the subject I have come to the conclusion that the slowness of our progress has been, in a measure, caused by the partial view of the subject which many of our farmers take when starting out in the career of agricultural improvement. Caught by the novel theory of some misled enthusiast, or the well-puffed nostrum of some designing speculator in agricultural quackery, the young hand at the plough is apt to lose sight of those means and appliances, so necessary to success—and when convinced of the fallacy of the plan he has been pursuing, or of the undue importance he has attached to an article of only moderate intrinsic value, he becomes alive to the fact, that by patient in-

dustry, aided by an enlightened attention to the well-established improvements in every department of his business, success in agriculture only can be secured. Now it is, that he looks out for the best implements, as well as the best manures, and becomes satisfied that a good plough is not the least important of the many wants of a farmer disposed to do justice to his profession.

In undertaking to advise a fellow-traveller in the path of improvement, who has arrived at the point above indicated, as to the choice of a plough, I do not rely entirely on my own experience in the matter; but believe in the recommendation I shall make, I may, perhaps, Mr. Editor, have your own sanction, while, at the same time, many of the best farmers, both in Augusta and Albemarle, will coincide with me in saying that in all the combined requisites of a good implement, suited to our labor and our general wants, the cast plough known as the *Livingston County Plough*, is unsurpassed. As compared with the *M'Cormick Plough*, the best article in general use previous to the introduction of this cast plough, the saving in cost is fully one-third, if not more. It can be run at less expense, and it is the general impression, in my neighborhood, that there is a saving of one-third in horse-power. A consideration in this matter, which, in my opinion, should not be overlooked, is, that this is a *Virginia manufactured article*, and I think the enterprising gentleman, who, contending against great prejudice and difficulty, has succeeded in establishing on a large scale, in the county of Augusta, a furnace and factory for the construction of these ploughs, is justly entitled to the character of a public benefactor—whilst at the same time, I am happy to state, that unlike many other manufacturing enterprises in Virginia, this one has *paid well*, and the demand for this plough is large and increasing.

Whilst commending the plough manufactured at Mr. Bryant's establishment, I am not disposed to disparage others, made in this or other States. I have no doubt that many of them possess great merit; but the *Livingston Plough*, from the fact that it has not a *single screw* or particle of wrought iron about it (unless it be in the clevis;) combines a degree of simplicity and cheapness that I have never known in any other plough, foreign or domestic.

In this connexion, Mr. Editor, I cannot help being struck with the importance of the system of District Agricultural Societies, acting in conjunction with a General State Society, as recommended by the recent Agricultural Convention held in Richmond. The members would bring to the attention of the District Societies all new improvements of every description. Such as these Societies should think of sufficient importance would be carried up to the notice of the State Society, where, all deemed worthy of general adoption, might receive such notice and commendation, as would gain for them the confidence of the community.

Yours, respectfully,

W.

PAYMENTS TO THE SOUTHERN PLANTER,

From March 1st to April 1st, 1852.

All persons who have made payments early enough to be entered, and whose names do not appear in the following receipt list, are requested to give immediate notice of the omission, in order that the correction may be made in the next issue:

Arthur Bott, to January, 1853,	\$1 00	H. L. Plummer, to January, 1853,	\$1 00
Hilton Garnett, to January, 1853,	1 00	George L. Aiken, to January, 1853,	3 00
John Stewart, to January, 1853,	3 00	John M. Scales, to January, 1853,	1 00
Andy Cawthorn, to January, 1853,	1 00	John A. Ratcliff, to January, 1853,	1 00
Thomas Young, to January, 1853,	1 00	S. Golden, to January, 1853,	1 00
John Horsley's estate, to January, 1852,	2 00	John Poe, to March, 1853,	1 00
Edmund Townes, to January, 1853,	1 00	T. Calbreth, to January, 1852,	1 00
Samuel Hancock, to January, 1853,	1 00	Wm. H. Henning, to January, 1853,	1 00
I. L. Reeve, to January, 1853,	1 00	Robert C. Davis, to January, 1853,	1 00
John G. Jefferson, to January, 1853,	5 00	Thomas Wiley, to January, 1853,	4 00
John N. Shields, to January, 1853,	1 00	R. A. Willis, to January, 1853,	1 00
H. Drewry, to January, 1853,	1 00	B. Grant, to January, 1853,	1 00
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M. M. Dunwoody, to January, 1854,	2 00	Col. S. M'D. Reid, to January, 1853,	2 00
Col. R. F. Parker, to January, 1853,	1 00	Dr. George Morton, to January, 1853,	1 00
M. Bennett, to January, 1853,	1 00	John R. Mann, to January, 1853,	1 00
P. Ellis, to January, 1853,	1 00	Thomas Green, to March, 1853,	1 00
Warwick Woods, to January, 1853,	1 00	J. G. Fulton, to January, 1853,	1 00
Anderson White, to January, 1853,	1 00	Philip Airhart, to January, 1853,	1 00
James Massie, to September, 1852,	1 00	O. Miller, to January, 1853,	1 00
James Morris, to September, 1852,	1 00	Dr. Wm. B. Blair, to January, 1853,	1 00
W. J. A. Michie, to July, 1852,	1 00	David Landis, to January, 1853,	1 00
James T. Sutton, to January, 1853,	1 00	Jacob Sanger, to January, 1853,	1 00
John Gilmer, to January, 1853,	1 00	Richd. H. Dudley, to January, 1853,	1 00
James T. Dunkum, to January, 1853,	1 00	Addison H. Coiner, to January, 1853,	1 00
G. Overton, to January, 1853,	1 00	Samuel Sanger, to January, 1853,	1 00
Lindsay Walker, to July, 1852,	1 00	Thomas Reeves, to January, 1853,	1 00
Sam S. Garret, to January, 1853,	1 00	A. Miller, (3 copies,) to Jan. 1853,	1 00
Jane Ashby, to January, 1853,	1 00	Felix Richards, to March, 1853,	1 00
John Th. Smith, to January, 1853,	1 00	Dr. Benj. Lewis, to January, 1853,	1 00
Col. Joseph Martin, to July, 1852,	1 00	A. Cheatham, to July, 1852,	1 00
George Rogers, to January, 1853,	2 00	Capt. Thos. Bronaugh, to January, 1853,	1 00
Jacob W. Morton, to March, 1853,	1 00	George E. Welsh, to January, 1853,	1 00
Dr. Cyrus M'Cormick, to October, 1852,	1 00	George W. Daniel, to January, 1853,	1 00
C. M'Intyre, to January, 1853,	1 00	M. B. Carrington, to January, 1853,	1 00
D. M'Craw, to September, 1852,	1 00	J. P. Taliaferro, to January, 1853,	1 00
Edward Carter, to January, 1853,	1 00	George Taylor, to January, 1853,	1 00
W. P. Thornton, to January, 1854,	5 00	H. G. Richardson, to July, 1852,	1 00
Wm. Johnston, to January, 1853,	1 00	Wm. Cullingworth, Sr. to January, 1853,	2 00
Henry A. Sydnor, to January, 1853,	1 00	George S. Smith, to January, 1853,	7 00
W. Laughlin & Carter, to January, 1853,	1 00	Thos. H. Ellis, to January, 1853,	3 00
Thomas M. Arnest, to January, 1853,	2 00	L. W. Glazebrook, to January, 1853,	2 00
Wm. P. Tucker, to January, 1853,	1 00	T. L. Page, to January, 1853,	1 00
Rev. R. B. Moon, to January, 1853,	1 00	H. Rhodes, to January, 1853,	3 00
Rev. J. Tinsley, to January, 1853,	1 00	Dr. P. H. Anderson, to January, 1853,	1 00
A. Ingram, to January, 1853,	1 00	Washington Swoope, to July, 1852,	1 00
N. Neblett, to January, 1853,	1 54	R. V. Watkins, to July, 1852,	1 00
Edmunds Gee, to January, 1853,	1 00	Capt. G. Choice, to January, 1853,	2 00
Tr. Shackelford, to January, 1853,	1 00	James Withers, to January, 1853,	1 00
James W. Hall, to January, 1853,	5 00	J. W. Reese, to July, 1852,	5 00
W. R. Harrison, to January, 1853,	1 00	Ben. E. Anderson, to January, 1853,	1 00
Wm. S. Burt, to January, 1853,	1 00	Joseph P. Terrill, to January, 1853,	1 00
Wm. Emory, to January, 1853,	1 00	Wm. M. Watkins, to September, 1853,	1 00
Wm. Matthews, to January, 1853,	83	Vincent Phillips, to January, 1853,	1 00
George C. Hannah, to January, 1853,	1 00	David C. Anderson, to January, 1853,	1 00
		Col. R. Rowzie, to January, 1853,	1 00
		W. P. Quisenterry, to January, 1852,	3 00
		John Morton, to January, 1853,	1 00
		Winslow Robinson, to January, 1853,	1 00
		George C. Smith, to January, 1853,	1 00
		Dr. Joseph Flippo, to January, 1853,	1 00
		D. D. Ferebee, to January, 1853,	1 00
		Jas. D. Scarborough, to January, 1853,	1 00
		C. L. Dicken, to January, 1853,	1 00
		W. H. Roy, to January, 1851,	1 00
		Dabney Minor, to September, 1852,	1 00

Henry E. Sipes, to January, 1853,	\$1 00	B. R. Johnston, to January, 1853,	\$1 00
Thomas T. Munford, to January, 1853,	1 00	Wm. Munford, to January, 1853,	1 00
A. W. Nolting, to January, 1853,	1 00	Mrs. Cynthia B. Boston, to Jan. 1853,	1 00
T. I. Redmond, to March, 1853,	1 00	Frank: Fry, to January, 1853,	1 00
Daniel Jones, to January, 1853,	1 00	James T. Carter, to January, 1853,	1 00
Capt. Arthur Slaughter, to Jan. 1853,	1 00	F. M. Turbeville, to July, 1852,	6 00
John E. Schley, to October, 1852,	1 00	E. G. Booth, to January, 1853,	1 00
Capt. David Pugh, to January, 1853,	1 00	Capt. R. H. Boston, to September, 1852,	1 00
Robert Carmichael, to January, 1853,	1 00	Wm. A. Bragg, to January, 1853,	1 00
Col. Thos. Carshaden, to January, 1853,	1 00	Benj. F. Watkins, to April, 1853,	1 00
Col. Charles Blue, to January, 1853,	1 00	Randolph Keats, to January, 1853,	1 00
James D. Watts, to January, 1852,	3 00	John T. Hairston, to January, 1853,	1 00
Austin H. Fergusson, to January, 1853,	4 00	Henry A. Winfree, to January, 1853,	1 00
Dr. N. T. Green, to January, 1853,	1 00	J. J. Bowman, to July, 1851,	2 00
Col. Thos. Loyall, to January, 1853,	1 00	Edmond, Davenport & Co. to Jan. 1853,	1 00
Col. J. Griggs, to January, 1853,		Gen. S. A. Williams, to January, 1853,	1 00
Wm. A. Sheffield, to January, 1853,		Judge W. W. Crump, to January, 1853,	3 00
John T. Wootton, to January, 1853,		Dr. R. H. Nelson, to January, 1853,	1 00
Maj. John L. Dillard, to Jan. 1853,	5 00	James F. Huffman, to April, 1853,	1 00
Capt. O. R. Dillard, to January, 1853,		Edmund T. Morris, to April, 1853,	1 00
Peter W. Watkins, to January, 1853,		O. B. Barksdale, to July, 1852,	1 00
Rev. S. J. Spotts, to January, 1853,	1 00	Col. Wm. O. Harris, to January, 1853,	1 00
Luke P. Terpley, to September, 1853,	1 00	Dr. H. Curtis, to January, 1853,	1 00
Dr. Josiah Lawrence, to July, 1853,	3 00	Col. Edwin Shelton, to January, 1853,	1 00
Dr. John E. Nicholson, to Jan. 1853,	1 00	John S. Mills, to January, 1853,	1 00
W. S. Dulany, to January, 1852,	1 00	S. Coates, to April, 1853,	1 00
Thomas Yerby, to January, 1852,	1 00	Mess. Jackson & Williamson, to Jan. '52,	1 00
J. B. Lightfoot, to January, 1852,	1 00	A. Bailey, Jr. to January, 1852,	1 00
Henry Fitzhugh, to January, 1853,	2 00	C. A. Anderson, to January, 1852,	1 00
John Baker, to January, 1852,	4 00	Capt. D. E. Bailey, to January, 1852,	1 00
John R. Taylor, to January, 1853,	1 00	Col. Thomas Pugh, to January, 1852,	1 00
Ro. Garland, to January, 1853,	1 00	John A. Chappell, to April, 1853,	1 00
John R. Taylor, to January, 1853,	1 00	Dr. T. L. Walker, to July, 1853,	2 00
J. M. Bullock, to January, 1853,	1 00	George W. Carter, to January, 1853,	1 00
J. Ferneyhough, to January, 1853,	1 00	Robert E. DeJarnette, to January, 1853,	1 00
Michael Wallace, to January, 1853,	1 00	Dr. Wm. S. Brockenbrough, to Jan. 1853,	1 00
Thos. W. Anderson, to January, 1853,	1 00	Dr. G. Moseley, to January, 1853,	1 00
Z. C. Vaughan, to January, 1853,		Dr. J. L. Burruss, to October, 1852,	1 00
Alexander Moseley, to January, 1853,		Thomas W. Garrett, to January, 1853,	1 00
John W. A. Saunders, to Jan. 1853,		Temple Walker, to January, 1853,	1 00
John Lackland, to January, 1853,	5 00	Col. Thomas S. Jones, to January, 1853,	3 00
Benjamin A. Cox, to January, 1853,		James Hodlett, Jr. to January, 1853,	1 00
James M. Johns, to January, 1853,		James A. Smith, to January, 1853,	1 00
Melville M. Johns, to January, 1853,		Leroy Campbell, to January, 1853,	2 00
J. Y. Hardy, to January, 1853,		Thos. M. Stubblefield, to January, 1853,	1 00
Rev. S. J. Price, to January, 1853,		Dr. L. B. Price, to January, 1853,	7 00
S. Crenshaw, to January, 1853,		Wm. J. Weir, to January, 1853,	1 00
J. A. Elliott, to January, 1853,		Charles Smith, to January, 1852,	5 00
T. M. Gilliam, to January, 1853,		N. W. Burwell, to January, 1853,	2 00
N. Cunningham, to January, 1853,		James Dickerson, to January, 1853,	1 00
Wm. M. Womack, to January, 1853,	10 00	H. R. Woodhouse, to January, 1853,	1 00
P. H. Jackson, to January, 1853,		T. R. Dunn, to January, 1853,	1 00
Dr. W. T. Walker, to January, 1853,		Dr. B. F. Taliaferro, to April, 1853,	1 00
Thomas Clarke, to January, 1853,		Capt. R. M. Nimmo, to November, 1852,	2 00
John Hughes, to January, 1853,		A. White, to January, 1853,	1 00
J. A. Watson, to January, 1853,		J. H. Cook, to January, 1853,	1 00
J. A. Dalby, to January, 1853,		R. H. Lipscomb, to January, 1853,	1 00
W. C. Davis, to July, 1851,	2 00	Jas. H. Johnson, to January, 1853,	1 00
R. H. Pollard, to January, 1853,	1 00	Columbus Davis, to January, 1853,	1 00
C. B. Foggs, to January, 1853,	1 00	Wm. S. Carter, to January, 1853,	1 00
Charles A. Scott, to July, 1852,	1 00	Richard G. Bibb, to January, 1853,	1 00
R. G. Grigg, to January, 1853,	1 00	Thos. Arvin, to January, 1853,	1 00
John W. Broadnax, to January, 1853,	1 00	S. P. Hackett, to January, 1853,	1 00
Wm. Turnbull, to January, 1853,	1 00	S. G. Davis, to January, 1853,	1 00
George B. Clark, to January, 1853,	1 00	Geo. P. Keese, to January, 1853,	1 00
Dr. Aaron B. Haskins, to January, 1853,	1 00	James Garland, to January, 1853,	1 00
Robert Gibbony, to January, 1853,	1 00	Rev. O. Bulkley, to January, 1853,	1 00

LEWIS G. MORRIS' Third Annual Sale, by Auction, of Improved Breeds of Domestic Animals, will take place at Mount Fordham, Westchester County, (11 miles from City Hall, New York,) on Wednesday, June 9, 1852. JAMES M. MILLER, Auctioneer.

Application need not be made at private sale, as I decline in all cases, so as to make it an object for persons at a distance to attend. Sale positive to the highest bidder, without reserve.

Numbering about fifty head of Horned Stock, including a variety of ages and sex, consisting of Pure Bred Short Horns, Devons and Ayrshires; Southdown Buck Lambs, and a very few Ewes; Suffolk and Essex Swine. Catalogues, with full Pedigrees, &c. will be ready for delivery on the 1st of May—to be obtained from the subscriber, or at the offices of any of the principal Agricultural Journals or stores in the Union. This sale will offer the best opportunity to obtain very fine animals I ever have given, as I shall reduce my herd lower than ever before, contemplating a trip to Europe, to be absent a year, and shall not have another sale until 1854.

It will be seen by reference to the proceedings of our State Agricultural Society that I was the most successful exhibitor of Domestic Animals at the late State Fair.

I will also offer a new feature to American Breeders—one which works well in Europe, that is, letting the services of male animals; and will solicit propositions from such as see fit to try it.

Conditions.—The animal hired to be at the risk of the owner, unless by some positive neglect or carelessness of the hirer; the expense of transportation to and from to be borne jointly; the term of letting, to be one year or less, as parties agree; price to be adjusted by parties—to be paid in advance, when the Bull is taken away; circumstances would vary the price; animal to be kept in accordance with instructions of owner before taking him away.

I offer on the foregoing conditions three celebrated Prize Bulls "Major," a Devon, nine years old; "Lamartine," Short Horn, four years old; "Lord Eryholme," Short Horn, three years old. Pedigrees will be given in Catalogues.

At the time of my sale, (and I would not part with them before,) I shall have secured two or three yearly sets of their progeny; and as I shall send out in August next a new importation of male animals, I shall not want the services of either of these next year. I would not sell them, as I wish to keep control of their propagating qualities hereafter.

I also have one imported Buck, the prize winner at Rochester last fall, imported direct from the celebrated Jonas Webb; and also five yearling Bucks, winners also, bred by me, from Bucks and Ewes imported direct from the above celebrated breeder; they will be let on the same conditions as the Bulls, excepting that I will keep them until the party hiring

wishes them, and they must be returned to me again on or about Christmas day. By this plan the party hiring gets rid of the risk and trouble of keeping a Buck the year round. All communications by mail must be pre-paid, and I will pre-pay the answers.

L. G. MORRIS.

Mount Fordham, March, 1852—31.

LIVINGSTON COUNTY PLOUGH.

THE subscriber having greatly increased his facilities for manufacturing the above Ploughs, will be able to supply orders for Ploughs or Castings on a larger scale of the following numbers and sizes:

No. 1. One Horse Plough	} Right Hand.
No. 2. Light 2 Horse Plough	
No. 2½. " " " "	
No. 3. Heavy " " "	} Left Hand.
No. 4. Three Horse Plough	
No. 4. Heavy 2 Horse Plough	
No. 5. Three Horse Plough	
No. 6. Four Horse Plough; but generally used for 3 horses.	

These Ploughs are now displacing all others in many counties in Virginia. They are composed entirely of cast iron, with chilled points, &c. From the simplicity of their construction, and the ease with which they are kept in order, they are peculiarly adapted to lave labor.

Persons desirous of further information concerning these ploughs are referred to the following gentlemen, who now have them in use: Wm. A. Woods, Esq. Charlotte County, G. S. Harper, Esq. Appamattox County, David Anderson, Jr. Louisa County, F. G. Ruffin, Wm. Garth and P. H. Goodloe, Esqrs. Albemarle County, Virginia.

Persons disposed to deal in the *Livingston County Plough*, in neighborhoods where they are not already introduced, and on sale, will please address

M. BRYAN,

Steel's Tavern, Augusta Co. Va.

DAILY AND WEEKLY DISPATCH.

THE Daily and Weekly Dispatch, published at the office on Governor street, near Main, Richmond, Virginia—commenced in October, 1850—have reached a very astonishing popularity. The **DAILY DISPATCH** is a penny paper and has an immense circulation in Richmond and contiguous towns. It affords the best medium for advertising. Subscribers in the country furnished with the paper at the low price of Four Dollars per annum.

The **WEEKLY DISPATCH** is published at ONE DOLLAR PER ANNUM, and is therefore one of the cheapest Newspapers ever published. It is a handsome sheet and contains the News of the Day, together with Literary Selections from the very best sources. The list is already very large and constantly increasing. No paper will be sent until paid for in advance. HUGH R. PLEASANTS is the chief contributor to the editorial columns of the Daily and Weekly Dispatch. Address the Proprietor, Richmond, Virginia.

SANDY POINT FOR SALE AT AUCTION.

THE undersigned, prevented by engagements requiring his undivided attention elsewhere from residing on his farm, will sell publicly, unless previously sold privately, (and of which due notice will be given,) at the Bullingbrook Hotel, in Petersburg, on Wednesday, the 26th day of May next, at 11 o'clock, A. M. without reserve or regard to weather, that valuable, highly improved and heavily timbered estate, known as SANDY POINT, situated on James River, in the County of Charles City, Virginia, 45 miles below the City of Richmond, and 32 miles below the City of Petersburg.

This fine body of land contains 4,453 acres, and has been advantageously divided into four well located farms, with dwellings, commodious barns, &c. and into five valuable lots of timbered land, exclusive of an ample allotment of wood and timber for each farm.

Persons desirous of investing in lands of a quality not often in market, are invited to examine this estate.

Printed bills giving the quantities in the subdivisions, &c. will be furnished, and accurate plats exhibited to applicants.

Possession given of the timbered lands immediately after sale; of the farms, at the end of the year, with the privilege of fallowing and seeding wheat.

TERMS—One-fifth cash; balance in five annual instalments for the farms; for the timbered lands, one-third cash and three annual instalments; credit payments to bear interest, and to be secured by deeds and approved endorsed negotiable notes or bonds.

R. B. BOLLING.

Address to Petersburg, Va.

fe—tf

PANNILL & SONS, Aucts.

AGRICULTURAL WAREHOUSE.

THE subscriber continues to manufacture Agricultural Machines and Implements, such as Horse Powers, Threshers or Drums, Fan Mills, different patterns; Seed Drills, different patterns; Corn Mills, Corn and Cob Crushers, Straw Cutters, Corn Shellers, a variety; Hill Side and Sub Soil Ploughs, Cultivators, Harrows, Grain Cradles, Reapers, &c. &c. all of which will be made in the best manner, and of approved patterns. My Horse Power and Drum, with self-oiling box, have been tested three seasons, and uniformly pronounced to be the best in use.

Machines repaired in the best manner.—Castings in Iron and Brass furnished at short notice.

H. BALDWIN,

148, Main street.

ap—3t

OSAGE ORANGE PLANTS FOR HEDGES.—A few thousand raised by myself, for sale.

WM. H. RICHARDSON.

Richmond, Jan. 1, 1852.—3t.

VALUABLE AGRICULTURAL WORKS for sale by NASH & WOODHOUSE, Eagle Square.

The Complete Farmer and Rural Economist and New American Gardener, by T. J. Fessenden, in one volume, about 700 pages, cloth, gilt—\$1 25.

Johnston's Agricultural Chemistry—a new edition, in one volume, 12mo. cloth, gilt—\$1 25.

Johnston's Elements of Agricultural Chemistry—50 cents.

Johnston's Practical Agriculture, one vol. cloth—75 cents.

Buist's Family Kitchen Gardener, cloth—75 cents.

Hoare's Treatise on the Cultivation of the Grape Vine on open Walls—50 cents.

Sheep Husbandry, by H. S. Randall—\$1 25.

Stephens' Book of the Farm, complete—\$4.

Browne's American Poultry Yard, tenth edition—\$1.

Allen's American Farm Book, one volume—\$1. Mail edition—75 cents.

Allen's Diseases of Domestic Animals, one volume—75 cents.

Chemistry Made Easy for Farmers, paper—25 cents.

Southern Agriculture; or, Essays on the Cultivation of Corn, Hemp, Tobacco, Wheat, &c.—\$1.

Dana's Prize Essay on Manures—25 cents.

Miner's American Bee Keeper's Manual—\$1. Mail edition—75 cents.

Brown's American Bird Fancier—50 cents. Mail edition—25 cents.

Canfield on the Breeds, Management, Structure and Diseases of Sheep—\$1.

The American Architect, the cheapest and best work of the kind published in the world, complete in 24 numbers, at 25 cents each, or \$5 for the work complete—\$6 bound in two volumes.

Youatt and Martin's Treatise on Cattle, with one hundred illustrations, edited by Ambrose Stevens, Esq.—\$1 25.

Youatt on the Breed and Management of Sheep, with illustrations—75 cents.

Elements of Agriculture, translated from the French, by F. G. Skinner, adapted for Schools—25 cents.

Gunn's Domestic Medicine; or, Poor Man's Friend in Affliction, Pain and Sickness—\$3. mar—1y

UNION AGRICULTURAL WAREHOUSE AND SEED STORE.

RALPH & Co. No. 23 Fulton street, New York, near Fulton Market, Dealers in all the most approved Agricultural and Horticultural Implements, Imported and American Field and Garden Seeds, Ornamental Shade and Fruit Trees, Guano, Bone Dust, Poudrette, &c. Wrought Iron Ploughs, Trucks, Barrows, &c. &c. always on hand. Also, the Excelsior, or California Plough. mar 3t

ANALYSIS OF SOILS, &c.

THE undersigned is prepared to execute the analyses of Soils, Guano, Marls, Plaster, &c. &c. at the Laboratory of the Virginia Military Institute. Packages may be forwarded through Webb, Bacon & Co. Richmond, or Echols & Pryor, Lynchburg.

Persons desiring further information will please address

WILLIAM GILHAM,
Prof. Chem. and Agriculture, V. M. I.
Feb. 1, 1852. Lexington, Va.

FRUIT AND ORNAMENTAL TREES AND SHRUBS.

THE Subscriber offers for sale a select assortment of Fruit and Ornamental Trees and Shrubs, a number of new Evergreens, and a good collection of Greenhouse Plants, especially of Camellias, Roses, Geraniums; also, Dahlia Roots, Pæonias, with Bulbous Roots, Garden and Flower Seeds, &c.

All orders thankfully received and promptly attended to. Prices moderate.

The subscriber is commencing a Nursery for the growth of Fruit and Ornamental Trees and Shrubs, in which the greatest care will be taken to grow only those fruits that are adapted to the climate; and all will be worked on seedling stocks. The subscriber has secured the services of an experienced Nurseryman, and thinks he will be able to supply those who may favor him with orders with good Plants at reasonable prices.

Catalogues will be published soon and can be had on application. Address
JOSEPH RENNIE, Richmond, Va.

COMMISSION HOUSE IN RICHMOND.

WITH the view of giving our friends and all others who may favor us with their patronage, the advantages of both markets, we have established in the City of Richmond a house for transacting a General Commission Business, to be conducted by TAZEWELL S. MORTON, under the style of TAZEWELL S. MORTON & Co.

The business of WATKINS & MORTON, will be conducted in Petersburg by SAMUEL V. WATKINS, assisted by JOHN A. MORTON, as herebefore.

It is our purpose to adhere strictly to the Commission Business; giving our undivided attention to the sale of the staple products of the country, viz: Tobacco, Wheat, Corn, Flour, Cotton, &c.

We return our thanks for the liberal patronage that has been bestowed on our concern in Petersburg, and to the dealers in produce and merchandise in that city we feel under many obligations for the generous liberality and punctuality we have at all times met with in our transactions with them.

TAZEWELL S. MORTON & CO.
Richmond, Va.
WATKINS & MORTON,
Petersburg, Va.

fa 3t

TO AGRICULTURISTS.

MORRIS & BROTHER have received the following valuable Books, pertaining to Agriculture:

Elements of Scientific Agriculture, or the connexion between Science and the Art of Practical Farming. This was the prizessay of the New York State Agricultural Society; by J. P. Norton, M. A.

Elements of Agricultural Chemistry and Geology; by Jas. F. W. Johnston.

American Agriculturist, for the Farmer, Planter, Stock Breeder, and Horticulturist; by A. B. Allen; numerous plates. The 8th and 9th volumes of this most valuable work are received, also complete sets. Every farmer should have this work.

American Farm Book, on Soils, Manures, Drainings, Irrigation, Grasses, Grain, Roots, Fruit, Cotton, Tobacco, Sugarcane, Rice, and every staple product of the United States.—This is a perfect farmer's library, with upwards of 100 engravings; by R. L. Allen.

Farmer's Manual, with the most recent discoveries in Agricultural Chemistry; by F. Faulkner.

A Muck Manual for Farmers; by S. L. Dana.

Farmer's Land Measurer, with a set of useful Agricultural Tables; by Jas. Pedder.

American Husbandry.—Series of Essays on Agriculture, with additions; by Gaylord and Tucker.

Farmer's Encyclopædia; by Cuthbert W. Johnson.

Productive Farming, with the most recent discoveries of Liebig, Johnston, Davy, and others.

European Agriculture, from personal observation; by Henry Coleman. This is a very popular work.

Johnson's Chemistry and Geology, with their application.

Johnson's Dictionary of Gardening; by David Landreth.

Loudon's Gardening, for Ladies; by A. J. Downing.

Squarey's Agricultural Chemistry, Boussingault, Rural Economy, Buist's Kitchen Gardener, Landscape Gardening, and Rural Architecture; by A. J. Downing.

Fessenden's American Gardener.
American Fruit Book, with full instructions; by S. W. Cole.

Downing on Fruit Trees.
Theory of Horticulture; by Lindley.
Florist's Manual; by H. Bourne; 80 colored engravings.

Bridgman's Kitchen Gardener.
In addition to which, Morris & Brother have all of the late Works on Agriculture, Horticulture, and Raising Stock, of any celebrity.

Richmond, March 12, 1851.—1y

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NASH & WOODHOUSE, Wholesale and Retail Dealers in BOOKS, PIANO FORTES, STATIONERY, MUSIC, &c. 139, Main St. Richmond, Virginia.

Constantly on hand, a full supply of standard AGRICULTURAL WORKS.
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WILLIAM P. LADD,

APOTHECARY AND DRUGGIST,

No. 319, head of Broad Street, Shockoe Hill, Richmond, Virginia.

DEALER in English, Mediterranean, India and all Foreign and Domestic Drugs and Medicines; also, Paints, Oils, Varnish, Dye Stuffs, Window Glass, Putty, &c. For sale on the most accommodating terms.

Orders from Country Merchants and Physicians thankfully received and promptly attended to.

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AGENCY FOR THE PURCHASE AND SALE OF IMPROVED STOCK.

STOCK Cattle of all the different breeds, Sheep, Swine, Poultry, &c. will be purchased to order, and carefully shipped to any part of the United States, for which a reasonable commission will be charged. Apply to

AARON CLEMENT, Philadelphia.

Refer to Gen. W. H. Richardson, Richmond, Virginia.

N. B.—All letters, post-paid, will be promptly attended to.

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GREAT REDUCTION IN PRICES OF HATS AND BOOTS.

J. H. ANTHONY'S FASHIONABLE HAT STORE, Columbian Hotel Corner.

THE cheapest place in the city of Richmond to buy HATS and BOOTS is at the above store, where every article sold may be relied on as represented. By this means he has gained a good run of custom, and his customers feel satisfied. Below is a list of his prices, which will be strictly adhered to:

- Best quality moleskin, - - - \$3 50
- Second quality " - - - 3 00
- Best quality silk, - - - 2 50
- Second " " - - - 2 00

Fine Calfskin Sewed Boots only three dollars and fifty cents.

Also, CAPS, SHOES and UMBRELLAS.

J. H. ANTHONY has made an arrangement with one of the best makers in the city of Philadelphia, to supply him with a handsome and substantial Calfskin Sewed Boot; which he will sell at the unprecedented low price of three dollars and fifty cents. The attention of gentlemen is respectfully solicited, as they are the best and cheapest Boots that have ever been offered for sale in this city. He intends to keep but the one kind, and sell them at one price.
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THE RICHMOND AND PETERSBURG RAIL ROAD COMPANY respectfully

inform farmers living on the Roanoke River and on the line of the Raleigh and Gaston Rail Road, that they are transporting tobacco and other produce between Richmond and Petersburg with promptness and despatch, running daily trains of eight wheel covered cars, securing tobacco and goods from damage. Tobacco consigned to the care of J. Lynch, Rail Road Agent, Petersburg, will be forwarded, free of commissions, to Richmond. Goods purchased in Richmond and consigned to the Rail Road Agent at Gaston will be forwarded up the river without charge for forwarding.

THOS. DODAMEAD,
Sup't R. & P. R. R.

June 24, 1851—tf

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