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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.*

VOL. XI.

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R. B. GOOCH, EDITOR.

P. D. BERNARD, PROPRIETOR.

TERMS.

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Office on South Twelfth Street.

PETITION.

To the General Assembly of the Commonwealth of Virginia:

The petition of the undersigned, committee of the State Agricultural Club, respectfully sheweth:

That the undersigned have been directed by the aforesaid association to ask of your honorable body the enactment of some proper measures in aid of agricultural instruction and improvement. To this end, we beg leave to exhibit the accompanying report (marked A) of a previously acting committee of the State Agricultural Club, prepared by the general instruction, and which was favorably received by that association. But neither in the contents of this paper, nor in the additional remarks which the undersigned may here offer, is it presumed to be urged upon your honorable body the adoption of any specific or precise manner of action for attaining the great and important object sought. Other plans may be more efficient than any we can recommend at this time; and all friends to the great cause of agricultural improvement will be content to leave the plan and its details to be arranged as may seem best to the General Assembly, provided they are chosen by the wisdom and discretion of that body, with the design to further the great cause and objects to be so promoted. But as the whole subject of aid and instruction to agriculture unfortunately is unknown to the legislative action and governmental policy of this commonwealth, the undersigned beg leave to offer some of the many grounds of just claim for such action and aid.

It has long been the established policy of the government of this commonwealth to aid

general education in nearly all its various branches. For this purpose, about the sum of \$100,000 is now annually paid out of the treasury, or otherwise diverted from its income. Other large amounts of funds, as clearly drawn from the public wealth, though in a different manner, (as in the cases of William and Mary and Washington Colleges,) would correctly extend the statement of the annual cost to the treasury, in aid of education, to the amount of \$

The items which make up this gross sum are the income of some fixed endowments to institutions of learning, the annuities to the Primary Schools, the University, the Military Institute, and in the suspended interest of nominal loans, but real gifts, to the Medical College of Richmond, and some other colleges. Thus, the government pays to aid education and instruction in the lowest elementary learning—in the dead, and also living foreign languages—in all the sciences usually taught in colleges—in military tactics—and also in law and medicine; but not a dollar of all this expenditure is directed to instruction in agriculture, or for aid to agriculture in any way. It is far from our design to object to the amount of State expenditure for education, so far as it is properly directed, or to even double the amount, with the same condition of proper direction—but this we will say, that any portion of the said expenditure, whether one-tenth or one-half, would be not less beneficially and profitably bestowed in judiciously aiding agricultural instruction and improvement. The direct and earliest effect of such promotion of agricultural knowledge would be to increase the profits and wealth of every farmer so instructed, and to that extent the general wealth of the whole community. But this would not be all. The increase of means, so produced to numerous individuals, would permit and induce a large addition to their previous expenditures for the scholastic education of their children. And thus it might well be, that the parents would return to the use of scholastic education itself, much more than any amount which they had before received from the treasury as aid for agricultural instruction. Some facts in support of this assertion probably are known to, and can be adduced as proofs or examples by every person who is acquainted with any locality where recent and great agricultural improvement has been produced. When by such improvement of soils and crops,

farmers' gross products have been doubled, their net products and surplus or disposable funds, (that is, the excess over all required for absolute necessities,) will have been much more increased, and may be even tenfold greater than before. It is out of this surplus or disposable fund only that the expense of education is usually defrayed. Hence, a farmer with a small income, who might find it difficult to spare \$50 yearly for the education of his children, could now easily afford, and would as readily pay \$300, in consequence of his land being so improved as to yield merely a doubled gross product. And in general, such largely increased expenditures for scholastic education will as surely result from increased agricultural production, as will any other new investments or expenditures. Of the thousands of facts and individual cases which exist, and might be adduced as illustrations and proofs of this position, it is very true that the increase of agricultural knowledge which led to the increase of agricultural improvement and profit, and thence of scholastic education, was not in the slightest degree induced by governmental aid, but was gained slowly, laboriously, and at great cost, by each farmer working ignorantly and imperfectly in his isolated position. But this lamentable truth does not affect our proposition. The beneficial results of agricultural improvement on scholastic education would be alike, and proportional in degree to the improvement, whether obtained with or without the fostering care and aid of government. The difference would be only in the amount of effect. For whatever of the light of instruction and consequent profit of improvement have been gained for agriculture in Virginia by isolated individual efforts, could be increased tenfold by the concentration of effort and diffusion of light, which the judicious bounty and aid of government would certainly produce. According then to these views, besides the increase of individual and general wealth to be derived from improvement of agriculture, and the obvious attendant benefits, there would be produced by the aid of government, so directed, very far more aid to scholastic education itself, than all that the State can possibly do for that object directly, by its most liberal bounty. Further, the amount of pecuniary aid which might be given by the government, at first for agricultural instruction and improvement, would be fully reimbursed to the treasury, in the subsequent larger receipt of taxation derived from the new capital thus brought into existence. These inferences are indeed but supposition, though founded on unquestionable facts; but with every just allowance for the uncertainty of the extent of the operation, there can be no doubt, that any judicious outlay of public money, given in proper direction to promote agricultural improvement, would return pecuniary profit to the commonwealth, and more than reimburse every individual contributor to the bounty in greater benefits derived from the improved productions

of agriculture, and the consequent increase of general prosperity and wealth.

The great and universally operating evil by which agriculture is oppressed and impeded in this country, is the *want of knowledge*. To supply this want should be the single object of government, (however diversified the means,) if designing to best promote agricultural improvement and agricultural interests.

As a science, agriculture requires much study and research; and as an art, much skill in numerous and various operations. In both these respects, few other pursuits require knowledge or skill in so many different things, or so much need instruction, as agriculture. Yet it is almost the only profession or pursuit which is without any regular or ordinary means for instruction, and in which almost every learner is without a teacher. If, in any other great and complicated business, it was the general course of capitalists to commence as undertakers without any knowledge of the theory or principles, and to employ operatives and superintendents who were as ignorant of the practice, and that for all to acquire the knowledge wanting, reliance was placed solely on their subsequent untaught operations—in all such cases, every voice would pronounce that the business must inevitably end in bankruptcy. Yet this is the usual course of procedure, nearly to the letter, in almost every agricultural business, whether on a large or a small farm. The usual course of the heir and expectant future cultivator of a large landed property, is, that he is educated in a town, and far from his future property, and is instructed almost exclusively in dead languages, and afterwards in sciences, few of which can have any practical application to his future pursuits. All these studies are thrown aside when the student arrives at manhood and undertakes the before designed business of farming, with which he is necessarily and entirely unacquainted. Still, a remarkable aptitude for the pursuit may in some cases enable a new proprietor to overcome all the disadvantages of his own ignorance and that of his agents; and finally to succeed well, notwithstanding such enormous obstacles. But, because some few such cases occur, it is a great mistake to suppose this kind of training sufficient to instruct farmers.

But, great as are the disadvantages of the wealthy young farmer, they are as nothing compared to the far more numerous class of men of small possessions and of more limited education. The farmer has leisure and various facilities to gather information from others. Travel, reading, frequent and varied intercourse with his fellows who have become better informed, (or who, even if as ignorant, are all striving to learn,) all serve to forward the instruction of the farmer who can command these resources. But the small or poor farmer, who is confined to his daily toil, has no such means, and can rarely derive knowledge from other persons, if surrounded only by neighbors

in similar circumstances and under like disadvantages.

Such are the inauspicious circumstances of the whole class of farmers of Virginia. The actual results and effects of this universal want of proper training and instruction are such as might be expected in advance, from merely knowing the causes.

Agriculture is not only untaught, and without any proper means for being taught, but it is the only art or science which is in that destitute condition. For every other pursuit requiring physical or mental power, every beginner receives early instruction from some person supposed to be well informed, and competent to instruct in the business. This practice is universal, and deemed indispensable, from the most simple mechanical labor to the most abstruse scientific study. Farmers alone are expected to understand their art without instruction—and, indeed, almost without any available and proper means for obtaining information.

As the great disadvantage under which agriculture suffers is the want of knowledge, if it is designed to furnish a remedy, it must be to collect, embody, increase and diffuse information. Every measure devised for relief, which will serve thus to spread instruction in useful truths, must do more or less of good service to agriculture. And every act of government or of any voluntary association designed for or professing to aid agriculture, which does not increase or extend useful knowledge, and is not of practical and profitable application, is of doubtful value, if not certainly worthless, or of actual injurious tendency.

Agriculture is an experimental science. All its known truths were originally derived from experiments, whether made by design or by accident; and the best existing systems of practice have been established entirely on experience and observation of facts brought to light by earlier experiments. Agricultural books and other publications, which so greatly aid and guide every intelligent farmer, so far as they are trustworthy, are but the recorded evidence and digests of truths founded on foregone experiments. Yet this only sure guide to knowledge and truth—investigation by accurate experiment—is very generally neglected as means for agricultural instruction and improvement. It is admitted, that as the life of every farmer is necessarily spent in agricultural operations, he can scarcely avoid making and observing some experiments, though without design, and with but little regard to accuracy. Some of these chance-produced results are correctly understood by the observers, and so become, for the future, useful parts of their practice founded on experience. A small portion of such useful results will slowly and imperfectly be made known beyond the neighborhoods of the first observers; and still fewer of the most noted may possibly be reported in printed publi-

cations, and so may serve to instruct many other and remote learners. But generally few experiments are attempted; and of these, the much greater number are conducted and observed with so little regard to strict accuracy, that the results can rarely be relied on, even if made known to the public, which end is even more rare than the making of useful and reliable experiments. Still, it is to the few such chance-made experiments, imperfectly conducted and observed, and insufficiently reported, that we owe nearly all the truths of agricultural science and art, and all the advances that have been made in improving the practices of agriculture. But with all this slow and feeble aid so derived from such experimental investigation as has been made, and is continued to be made, the teachers of agriculture still proceed as did the early teachers of natural philosophy and chemistry, by merely theorizing and opposing by plausible reasoning one theoretical doctrine to another, both being very insufficiently sustained by the only sure tests of truth—actual and correct experiments. Hence, agriculturists only, of all the investigators of science or art, in modern times, continue to grope their way through the obscurities of untested theoretical doctrines and opinions resting upon supposition, or, at best, on partially understood facts and observations. Some one starts a new doctrine or system in reference to tilling or improving the soil—every speculative farmer or writer becomes either an advocate or opposer of the new opinion. Volumes may be published on the controverted points, and perhaps after fifty years of discussion and of conflicting farming practices under the opposing opinions, it will still remain undecided to what extent either of the opinions is true and useful, or false and pernicious. For it generally happens in such cases, that neither opinion is altogether true or altogether false; and that both the opposite practices may be either right or wrong, according to differences of existing circumstances. The comparative merits of sowing wheat broadcast or in drills—of naked fallow or fallow-crops to prepare for wheat—of using barn-yard manure in a rotted or unrotted state—of ploughing deep or shallow—and of many other ordinary and opposite practices, have been warmly disputed in Britain and in this country for many years, without being yet decided. In every such question, (and of such questions and discussions almost all agricultural teaching has mainly consisted,) twenty or a hundred properly conducted experiments, made under every known difference of circumstances, would probably have established the disputed truth, or, at least, would have approached the truth more nearly than all the arguments that could have been presented in fifty volumes, or in fifty years, and with as long agricultural practice of both the opposing parties, if without the aid of investigation by correct experimenting.

The different branches of natural philosophy, in comparatively modern times only, have been studied and investigated by the guidance of full and rigid experimenting. Previously, knowledge in these sciences was vainly sought, as now and always in agriculture, by setting forth hypotheses, and by arguing in their support.—And the rate of advance of these sciences, since their having been correctly aided by experimental proofs, has been greater for each year than for each century previously. Agricultural science is as much capable of being investigated by experiment as the other more strict physical sciences, though not so easily, or at such small cost. But with the greater cost required, the results of agricultural experiments would be not less certain than those employed to establish philosophical or chemical truths. And while of the latter results, perhaps not one in fifty of the truths ascertained are of practical and profitable application, not one established agricultural truth could be otherwise than extensively useful. Hence it may be inferred how rapid would be the new movement of agricultural knowledge and improvement—how powerful the new impulse to advancement that would certainly be produced by employing the aid of general and rigid experimenting as a guide. And this great and invaluable agent, to attain the greatest public benefit through agriculture, never can be used to much extent by individual efforts—nor in Virginia, by any other means than that combination of effort which legislative aid and direction only can put in operation.

To plan and conduct an agricultural experiment correctly, so that the results may be relied upon, requires much care, judgment, habits of accurate observation, and also long time and often expensive means. Unlike the chemist and natural philosopher, the agriculturist cannot prescribe all the materials and direct precisely the working of his experiments. The variations of soil, climate, season, &c. introduce different and often unsuspected elements into almost every agricultural experiment, so that repetitions under various circumstances, and for many years, may be necessary to confirm the results. Hence, *complete and decisive experiments* in agriculture can rarely be executed by any one private and unaided individual, and are almost never attempted, because of the required cost in time, labor and expense. Nevertheless, despite of loss, discouragement, and ridicule, there are always operating (very imperfectly) many experimenting farmers, whose individual losses are generally in full proportion to these operations.—Yet to their labors, however detrimental to their own interests, agriculture and the public weal are indebted for nearly all the advances made in improvement.

We have endeavored to set forth the actual deficiency and want of knowledge and instruction in both the science and art of agriculture, and also the great benefits which would accrue to the general interests of the commonwealth,

by the affording aid to agricultural improvement. The public weal being so promoted, and to a much greater amount than the cost of the instruction bestowed, would constitute a valid ground to ask the government's bounty for even a minor interest; but in addition to this just ground of claim, the agricultural is beyond all comparison the major interest of Virginia. So far does it exceed in amount and value any one, and indeed all other interests, that each and all others are intimately connected with, and greatly dependent on, the great agricultural interest—each one of the minor interests flourishing or declining according to the prosperity or the decay of agriculture and its amount of profits. The agricultural interest of Virginia is identical with the general interest of Virginia—and the former cannot possibly be improved without proportional benefit to the whole commonwealth.—Again, the agricultural interest, directly or indirectly, pays nearly all the revenue of the commonwealth, and is bound to pay all its obligations. Yet agriculture alone, of all the interests of even slight importance in Virginia, has received not the smallest aid from the treasury for its improvement, nor even any facility (which can only be efficiently afforded by the Legislature,) to direct any portion of its own vast means for its own benefit. And when any claims for this object have been presented to the Legislature, they have not only been treated with neglect and denial, but with ridicule and contempt. Indeed, the very fact that agriculture alone pays all the revenue of the commonwealth, has been used as an argument to withhold all return of aid. It has been asked, by shallow reasoners, "Why tax agriculture, or divert any amount of tax necessarily drawn from agriculture, to give back the same amount as a bounty or aid to agriculture?" There might be some weight in this and kindred objections, if the Legislature of Virginia were not the actual and only representatives of the agricultural interest, or if the numerous and widely-dispersed members of this great interest had any other bond of connexion, or any other possible means for united effort, than what is or may be furnished in the Legislature itself. Properly considered, your honorable body is, or ought to be, truly and entirely the representatives of the agricultural interest; and whatever you may do to benefit agriculture, is but the agricultural interest acting for itself through its only organ. If you withhold all such aid and action, then it is utterly impossible, in any other way, to produce combined action in so numerous and wide-spread a multitude as belong to the agricultural interest. Not even any partial yet efficient joint action could be so effected, though the probable general benefit from the measure might exceed the cost a hundred fold. To expect any such combined effort and action of the agricultural interest, without the facility for combination which the Legislature only affords, would be as vain, as it would have been to expect the

Central Railroad, or the James River Canal to be constructed without charters of incorporation, and legal allowance of tolls, and the still more potent and essential aid of the public funds.

We will not presume to indicate any precise sum which would be sufficient for any particular scale of operation, in the event of government aid being offered to agricultural improvement. If limited to but a few, and these the most essential means to be employed for the purpose, the annual expenditure of \$5000 or \$6000 might do much good; and if \$50,000 were to be judiciously so appropriated, the benefits and profit to the commonwealth would not be less in proportion. In reference to the estimates of cost of various particular measures proposed in the annexed report, it may be observed that the largest particular amount named is in aid of County Agricultural Societies—\$10,000, on the supposition that as many as 100 such societies might be established and require a share of the bounty—But probably the whole of this largest item of expense might be dispensed with, or the amount be directed to other subjects, provided there existed, independent of any pecuniary aid from the treasury, sufficient inducements for the establishment and useful operation of Agricultural Societies. It may be presumed, that weighty inducements would be found in the other aids which the plan offers to counties forming Agricultural Societies—and also in the public spirit, patriotism, and enlightened self-interest, which are possessed by thousands of individuals, and which motives will be, for the first time, permitted to operate, and may be fully brought into operation, by the constructing and supporting by the government of a general plan for aiding agricultural instruction and improvement.

All which is respectfully submitted.

EDMUND RUFFIN,

Chairman Com. of Agricultural Club.

REPORT.

The committee directed by the State Agricultural Club to consider and arrange a plan for a State Agricultural Bureau, or department for aiding the improvement of agriculture by governmental action, beg leave to report:

It would not be difficult to devise and arrange in advance a good general plan and organization for the improvement of agricultural science and practice, provided the necessary means were at command; but the want of sufficient means and materials, or the fear of such want existing, must weigh upon every theoretical construction of a plan, and serve greatly to curtail its just proportions and its anticipated usefulness, even in the estimation of its constructors and most zealous advocates. If sufficient means and materials were available in Virginia, it might be best for the government to establish a general plan of ope-

rations on the extensive scale adopted in Britain, under direction of the board of agriculture, and which had such important, continuous, and still increasing effects, in improving and perfecting British agriculture. Great as was the cost of executing that plan of operations, no intelligent man in England now doubts that the outlay was doubly remunerated, even to the government and the treasury, in the greatly increased profits and returns of agriculture; and we do not question that any amount of outlay by the government of Virginia, if judiciously directed, would be not less profitable to the agricultural and general interests of this commonwealth, and even to its public revenue. Still no such opinion can at present be expected to prevail in the legislature; and if the establishment of any plan for governmental aid to agriculture can be hoped for here, the hope must be founded on scanty pecuniary means bestowed from the treasury, and (at first) but few zealous and able laborers to lead in the execution of the great work designed. In Britain, at the time referred to, amidst the general ignorance of agriculture, and the general imperfect and unprofitable execution of its practice, there yet were many agriculturists, distinguished as successful improvers, and whose patriotic zeal urged, and whose wealth permitted, them to give their talents and time in aid of the great work. Of such men, serving gratuitously, the board of agriculture was composed—having Sir John Sinclair as its President, and Arthur Young its Secretary; and these officers, so well fitted to direct, exercising a controlling influence on the action of the board. A capable and salaried agricultural surveyor was appointed for every county in Britain and Ireland, and for some of the larger counties, more than one surveyor. These functionaries investigated thoroughly the agricultural facts, improvements, deficiencies statistics, &c. of their respective allotted districts. Their reports filled as many large volumes as there were reporters. These county reports, when published, furnished an immense amount of valuable information for the use of every British farmer, and also for every British statesman. Every existing improvement, or valuable process, before known only within narrow confines, was thus extended to every inquiring mind in the kingdom. Every defect of practice, before scarcely recognised as a defect, was exposed, and profitable substitutes offered. These operations required years to be executed, even with the continued employment of the time and talents of perhaps more than a hundred agricultural surveyors and reporters and other functionaries. But though this machinery and its direct working ceased with the completion of the great work of agricultural reports, the benefits have continued and increased to this day. In a great measure it is owing to the abiding influence of this wise operation of the British government, that the practical agriculture of that country is now the most per-

fect and productive in the world. Numerous farmers, (and who are still increasing in number,) aided only by the lights thus previously afforded, and stimulated by the established confidence in profitable results, now study and practise agriculture as a science as well as an art. Able chemists and geologists, though not farmers, or pretending to any knowledge of agriculture, have given the benefit of their scientific knowledge in aid of agriculture, and to great effect. Competent lecturers on agriculture, scientific and practical, are regularly addressing, and are eagerly listened to, by temporary assemblages of farmers, or permanent agricultural associations. And as one of the evidences of the benefit of these results, there are sundry agricultural journals of different grade and design, all ably conducted and well supported, which furnish information of every kind, from the most elaborate scientific investigations and discussions, to the most humble (but still highly useful) details of practice. Taught by such means, the best farmers of Britain have recently, and with undoubted success and profit, executed improvements and incurred expenses in thorough draining, in purchasing and transporting manures, &c. &c. to an amount of which no conception could have been formed fifty years ago. And though the the British farmer has to pay, in rent, tithes, poor rates and taxes, perhaps three-fourths of the product of his cultivation, and may thereby be left, after all, with but scanty net profits, this does not invalidate the fact of the great improvements and results of agriculture actually produced, and actual clear profits of agriculture yielded, however the profits may be divided among the farmer and the various other larger receivers.

In proposing a plan for governmental aid to agricultural improvement, there is more need to regard the paucity of means, and the now existing obstacles to the operation, than the proper measures for the greatest success and benefit to agriculture and to the commonwealth. But very scanty pecuniary aid from the treasury can be hoped for. We have but few if any Sinclairs and Youngs among our many excellent practical farmers. For intelligent, inquiring, and well educated, as many are, all such are devotedly and profitably engaged in the cultivation of their own estates, and have no time or zeal to spare for other and general interests. Many pretenders to chemistry and geology there are, and some few who are well versed theoretically in these sciences, so important to agriculture. But probably there is not one such man of science in Virginia, who has even sufficient knowledge of agriculture to know how to apply to the latter any lights which his own particular science and studies might afford.

Under such unfavorable circumstances and formidable obstacles, it would be useless to discuss and to propose what might be the best plan for action, and we shall merely propose such as seems the best which can possibly be

established at the present time, and with the probable available means. Should this or any other imperfect plan be put in operation, and be found as beneficial as we anticipate, it could subsequently be more and more extended and developed, according to the increase of facilities which would be so produced. The measures now proposed will be stated, with no more support by explanation or argument than is deemed indispensable.

As the expense of a paid and usefully directing board of agriculture, under present circumstances, would be much too great, and as no useful service could be expected of an unpaid and irresponsible board, it seems best to vest the powers and proper action of such a body, for the beginning at least, in a single commissioner of agriculture, subjecting his general action and his direction and expenditure of the funds to the general supervision and control of a board composed of the governor, treasurer, and first and second auditors of the commonwealth. The commissioner's general plan and proposed procedure being submitted and approved, the execution of the details and the responsibility should be left to him entirely.

In the future maturity of the system, the commissioner might be required, by the increase of business, to remain generally at work in his office at the capitol, and to execute other duties by assistants; but at first he would act alone, and in itinerant service mostly, requiring much physical as well as mental labor. This officer should be a practical and well-informed farmer, and be otherwise qualified for the duties to be here stated.

It would be the first duty of this functionary to attempt to induce farmers to establish permanent county agricultural societies, upon one general well-devised plan of organization and operation, and also to draw together more transient collections of farmers for conversational discussions, and for eliciting and exchanging practical information. All useful facts and improvements, so learned and not extensively known, should be noted by the commissioner, and embraced in his general report, and also such important deficiencies in practice as he shall observe in some localities, which might be supplied by information of proper practice in other localities. The commissioner might preside at such transient meetings, and direct their inquiries and working, and occasionally deliver lectures on suitable agricultural subjects to these and at some of the annual meetings of the county agricultural societies. The temporary meetings of farmers, invited to discuss particular subjects, would be interesting and well attended.—Numerous useful facts could not fail to be thus brought out, which should all be noted, and in the same way made known to the public. Publishers of existing agricultural or other journals would probably find it interesting to their readers and conducive to their profits, to take notes of and publish the

more important matters discussed in these meetings. Thus, without any expense to the commonwealth except the commissioner's salary, much interest might thus be created, and much useful agricultural information be elicited and widely diffused.

But however useful and cheap this service, it would be the most humble and most easy of attainment. Higher and more important action will now be considered. One kind would be in inducing the permanent organization of county agricultural societies. Than these, with a subsequently instituted general agricultural society for the whole State, nothing would be more conducive to agricultural improvement, with proper procedure of the societies. Yet, because of useless or misdirected effort and procedure, nothing has been more useless in operation than nearly all the numerous agricultural societies which have had an existence in Virginia—indeed, in the general condemnation of uselessness might be included all the agricultural societies in the United States, with some temporary exceptions made by the peculiar zeal, energy and intelligence of some leading and active members of particular societies. But the plans of operation have been so universally faulty, and the consequent inaction, or wrong action, so general, that the partial relief and contrast caused by individual intelligence and zeal, have been of little operation and value to agricultural improvement. This occasion does not permit the stating in detail the generally prevailing errors and defects of agricultural societies, or the different procedure deemed proper. But such general course of procedure as may be deemed best for useful results, should be required of all agricultural societies connected with the government, and receiving its bounty in aid of their operations. With such proper requisitions, and a proper and uniform general plan, agricultural societies might render the most important services for the improvement of agriculture. In furtherance of their operations, we propose the (possibly) heaviest expense of the general plan. For every agricultural society established upon the plan required as the condition, and which annually raised and paid out in premiums for suitable subjects, the sum of \$200, the commissioner should have power to add thereto, for like premiums and subjects designated by himself, \$100 to be drawn from the treasury. Thus, if 100 county or district agricultural societies were so established, and put into useful operation, it would cost to the treasury \$10,000 a year—and which, by individual subscriptions would be increased to \$30,000 a year, all expended usefully to elicit and diffuse agricultural knowledge and promote agriculture.

It is probable that the offered co-operation of the State, and still more the appeal made to the public spirit and zeal of individual farmers, would soon induce the establishment of, and put into useful operation, many county agricultural societies. As a further inducement,

it might be well for the commissioner to direct his other subsequent operations mainly or entirely to the counties in which such societies were established. This would not only be good policy in furtherance of the general object of agricultural improvement, but there would be no injustice to the omitted localities. For if the people of any county would not give enough of individual effort to establish a society, or to do anything of themselves for their benefit in this respect, it is not to be supposed that they would duly appreciate or profit by other means for instruction forced upon their notice.

If deemed advisable that the valuable aid of operative chemistry shall be given to agricultural investigation, the commissioner should be authorized to employ such aid for analyzing soils and manures, &c. to a stated limit of expense. There is no man in this country, (if there is in the world,) who combines the different kinds of knowledge of both a good practical and scientific farmer, and a good operative chemist. Of course, to secure both these attainments in the commissioner, would be hopeless. The question then arises, whether the commissioner should be merely an agriculturist, or merely an operative chemist. We entertain no question of the former alternative being far the best. An enlightened agriculturist, though but generally and slightly informed in chemistry, would know much better than any mere chemist to what subjects chemical investigation would be required and important to agricultural knowledge. Good operative chemists can be as well directed and as well employed to make particular analyses and investigations by an agricultural surveyor, as by a geological surveyor—and gentlemen who have conducted geological surveys at public expense, have had their reported analyses either mostly or exclusively conducted by hired operative chemists, whose names were not even mentioned in the report of the geological surveyor. There would be this difference in the two cases: The agricultural surveyor, in resorting to the chemical knowledge of another person, would, (whether so choosing or not,) of necessity acknowledge the aid, and would have to pay for it the whole amount allowed by law for the purpose; and it should be further required, that every chemical investigation and report should be ascribed to its author, by name, so that he should have all the credit due, and also incur the responsibility for error. For the proper selection of competent and faithful chemists, the commissioner would be properly responsible. A Professorship of Scientific Agriculture should be established at the University of Virginia. The advantages of such an institution, for teaching the theory and principles of agriculture, need no illustration or argument.

For teaching the practical process of agriculture, it would be a valuable extension of this general scheme, to establish one or more *experimental farms*. We do not mean anything like what have been termed "model" or "ex-

ample farms," on which it would be designed to exhibit examples of the best farming practice. We have no faith in any good and profitable farming being by possibility conducted upon state account, and it can rarely be done by agents for any distant individual proprietor. The object of a government experimental farm should be to try experiments, to decide disputed questions of agricultural practice, the value of new manures, new processes, machines, &c. All this would of course cause loss to the farm, though conferring great value, in correct information, to the agricultural community. Of course the farm should be kept under regular and good culture, both to lessen its annual expenses, by the crops raised, and to employ the necessary laboring force at all times. On such a farm, every farming process, suitable to the locality, might be performed in the best manner; and young farmers might there learn to execute these labors, either by serving for a time as laborers, or by mere inspection. There would be no difficulty in trying and using the best implements, and in the best manner. And if by such examples a young farmer could there see and learn the best implements and processes by which to execute ploughing, sowing, reaping, thrashing out grain, manuring, burning and applying lime, draining, &c. it would be no lessening of the value of the instruction so afforded, that the whole farming operations were of more expense than profit to the treasury.

All the proposed measures, if carried into operation, would help to furnish much interesting matter for publication in agricultural journals, and induce much more demand for such publications. We might expect, from this alone, a great extension and improvement of this excellent means (and almost the only means heretofore existing) for diffusing agricultural knowledge. But still greater would be this gain, if a certain amount (say \$2000) a year were authorized to be paid to one or more such journals for the publication of a certain amount of matter, to be furnished by the commissioner, which should be additional to the matter otherwise furnished by the publication to its subscribers. In this way the publication of the reports of and to the commissioner might be made most cheaply to the treasury, and most widely diffused to the reading agricultural community.

This occasion does not permit more than general reference to two other means for promoting agricultural improvement. One of these would have the merit of costing nothing to the public. It would be, in inviting and inducing, upon considerations of public good, some of the best farmers in Virginia, whose farms are truly examples of model culture and valuable improvement, to receive young men as pupils or apprentices. Such an invitation would be an honor to even the already distinguished and best farmers, which might induce their compliance, so far as convenient. And any young men, so received and instructed in

practical farming, though not paying a fair consideration to their instructor and host, would derive a very far greater balance of benefit. If by such a system fifty pupils were so instructed every year, and then settled on their farms in various parts of the State, practical agricultural knowledge would be diffused in much the same manner as is now done for military and scholastic instruction by the operations of the admirable State Institute.

The other measure would cost money to the State, but might return more, and also produce other benefits of much greater value than either the cost or profit in money. This is, to publish in very large impressions, and thereby at very low cost, the books for primary and other English schools; and, so far as suitable, to make the reading books vehicles of agricultural instruction. In this manner might be superseded (by being undersold,) the Northern publications which are used in all our Southern schools, and which, for the matter contained, are not always merely useless and worthless. Some of these books for young children have been artfully directed by northern abolitionists against our institution of slavery, and have even been introduced into schools as well as made subjects for recreation. Some portions of books proceeding from this source contain articles absolutely infamous for falsehood and indecency, and which, though perhaps not made school books, are purchased by or made presents of to children by unsuspecting parents and friends.

If the State would contract for large editions of any desired printed matter for school books, they can be furnished at least as low as the prices for which the religious tracts of the northern tract societies are sold. And why the societies publishing these tracts should not make clear profit by the sales, instead of requiring the vast amounts subscribed by pious and benevolent persons to aid the good work, cannot be explained, except by reference to the bad management of all joint-stock operations, and also the fat salaries given to the numerous agents of all such societies.

In submitting this plan, it might be deemed much wanting in completeness, if not embracing an estimate of the total cost.

The agricultural commissioner, who, in discharge of his duties, would necessarily be generally travelling, or otherwise from home, and at various places, for short times, suppose a salary of \$2500 and his necessary expenditure in travelling, or for all,	\$3,300
Payments to 100 Agricultural Societies, (if established.)	10,000
Payment for chemical services, (the operator not being required to be from home or his laboratory,) suppose,	1,500
Payment to agricultural journals for publishing extra matter.	2,000
	\$16,800

If to these were added the further measures of a Professorship of agriculture,	2,000
Two experimental farms, suppose interest on capital and annual loss on operations of each \$2,000,	4,000
	\$22,800

The two latter subjects are not essential parts of the general plan. Of the other parts deemed essential, much the larger amount, \$10,000, would be expended for the one subject of Agricultural Societies. That expenditure would necessarily obtain \$20,000 more from individual contributions. It can scarcely admit of a doubt, that the whole \$30,000 so expended (in premiums for useful objects) would produce of general value to the commonwealth much more than the whole cost. Then the government will gain of benefit to the commonwealth more than the value of \$30,000 for the expenditure of \$10,000. The other subjects of charge would be scarcely less productive of benefit in proportion to the expense. Altogether, upon this or any other judicious plan for governmental aid to agriculture properly executed, there can scarcely be otherwise than a pecuniary gain to the commonwealth, and that gain may be even tenfold greater than the cost to the treasury.

EDMUND RUFFIN,
Chairman of the Committee.

Read before the State Agricultural Club,
and unanimously adopted, January 30, 1851.

From the Lexington (Va.) Gazette.

GRASS SEEDS.

The red clover justly stands at the head of the list. It was in use in the State of Pennsylvania, it is said, prior to the Revolution, and was probably introduced into this portion of the valley, by the descendants of the Scotch Irish who came hither from Pennsylvania. Its use has become general throughout the Northern and Middle States. It is but little cultivated in the more Southern States, inasmuch as it is a grass that does not stand the burning sun of the South well. In some parts of Eastern Virginia, it does not grow readily, but, it is no longer the great desideratum with the farmers of that section of the State, that it has hitherto been, as a *fertilizer*, because they get that most powerful of all fertilizers, guano, with so much facility. Apart, however, from the fertilizing properties of clover, it has enough to commend it to the use of every farmer in this region. Its *current benefits* in the shape of luxurious pas-

ture and capital hay, are in themselves enough to induce its general use; yet, strange to tell, there are many in our own portion of the Valley who do not sow clover. Every one in this part of our country, ought to cultivate it, and *mainly as a fertilizer*. If he does, and steadily adheres to his purpose, he will be very apt to have the delightful collateral benefits just enumerated. But, it is not intended to enter into details upon this topic. Let us say a word as to the quantity of seed to be sown per acre, the time and the manner of sowing. An almost universal error, is the sowing all seeds too lightly. In former days, one bushel of clover seed was put upon ten acres; more recently, one bushel to eight acres. This last quantity does tolerably well in favorable seasons, but, in order to make more sure work of it, and get its full benefits, the sowing ought to be one bushel to six acres. When a man sets apart a portion of his farm to remain in clover for two or three years, is it not manifest that he should guard against contingencies as far as possible, by sowing with a heavy hand, and thus have his land completely covered? There is a prevalent error upon this point. It ought to be corrected. Lay it on—lay it on, and you will be the better pleased with results. The last of February or first of March is an approved time for sowing. Until within the last few years, I was in the habit of sowing in the early part of April, postponing it thus late in order to avoid frosts upon the young clover, but it was an error. It suffers more frequently from droughts in summer than from frosts in the spring, and when sown as late as April, it is too feeble to resist successfully severe droughts.

When sown upon wheat, as is mostly the case in Rockbridge, if the soil is loose and open by the action of frost, or if such be its natural condition, the roller ought immediately to follow the sowing of the clover seed. Three years ago, I had wheat upon such a field. I did not use the roller then. The clover was heavily sown, but proved a total failure, except upon a line across the field, where I had been under the necessity of running the wagon repeatedly. Upon that comparatively beaten track, the clover was good. If wheat is sowed upon corn ground, and clover then sowed upon that wheat, it will not be necessary to sow clover again, provided the land is not pastured closely, and this course adhered to *as a system*. It is a most excellent system of rotation.

A very successful farmer of Rockbridge is in the habit of sowing his clover seed upon his corn-field, putting on the seed just as soon as the last ploughing of the corn is finished.

As to orchard grass. It is not equal in quality to some of the other grasses as pasture, nor is it as desirable for hay, as timothy or clover—but stock eat it very well when cut early, and, especially if salted when put up. As a pasture, it is more *durable* than any other—hence, it is desirable to have some of it, particularly as winter grazing for sheep. Two bushels of the seed should be sowed upon an acre—two and a half is a better quantity. The sentiment that prevails extensively, respecting orchard grass, does not do justice to it.—*The seed that we buy* is not freed from its chaff. In a bushel measure, we really have but little, if any more than a peck of seed. When putting down two or two and a half bushels per acre, at one dollar per bushel, a man is very apt to think he cannot do more, for, even at that rate, it is about three times the cost of clover seed. There is, therefore, in most cases, really but little seed put upon an acre. It comes up in detached tufts, with coarseness of fibre, and requires, then, a long time to spread itself over the entire surface. No wonder that there should be some degrees of dissatisfaction under such circumstances. When sowing the seed put it down heavily. Unless we are certain we have the seed itself, divested of its chaff, better sow three than two bushels to the acre—the grass and hay will both be more abundant and of better quality. It is probably the most permanent of the grasses, and furnishes a more durable pasture than any other. Every farmer ought to have some of it. It seeds abundantly, and, if it is to be cut for the purpose of seed, the stalk should be cut with the cradle and high up. That portion which is below the cradle may then be cut and cured for cows.

Timothy is with most of us an old acquaintance, as it is the common meadow grass of the country. It will also grow upon most uplands, but it is not to compare with orchard grass, as an upland pasture. It yields but little pasture when sowed alone upon upland, and is soon supplanted by other grasses. Clover and timothy sowed together, are said to furnish a most valuable pasture. The best time for sowing timothy seed is last of August or first of September, and, the surest chance is to sow it without grain, harrowing or brush-

ing it in. The old rule was to put one bushel of seed to every six acres. It ought to be one to every three or four. If farmers would regularly sow plaster upon their timothy meadows, they would be well repaid for it.

The green sward is a beautiful grass for a yard, and fine for grazing also. The common blue grass is one upon which animals fatten readily, but it is not desirable for other purposes.

The *Kentucky* blue grass made some noise in this part of the world for awhile. I have not tried it, but, from what I hear my neighbors say who have tried it, I do not think I ever shall.

“HAMPTON.”

FARMERS' STATE CLUB.

At a meeting held in the Senate chamber on the 20th February, Gen. Corbin Braxton, President, in the chair:

Subject for discussion, *Cultivation of Wheat.*

Upon questions propounded by the President, Col. Wright, of Loudoun, said that in his county the time to commence sowing is from the 20th to 25th of September; clover ley is preferred to a naked fallow; do not re-fallow; commence harvesting so soon as the grain is in the tough or dough state and before it becomes hard.

By J. R. Edmunds, Esq. of Halifax. Do you tie up in bundles? large or small shocks?

Col. W. It is tied up in sheaves and about fourteen to a shock, which yields about a bushel. It is usually hauled to the barn to be threshed.

Col. Tomlin, of King William. The size of our shocks is such as to average about three and a half bushels each.

The President. Do you use the reaper?

Col. W. Some farmers do; six horses are generally employed, three at a time, so as to change; their gait a fast walk. Average work about eight acres per day.

Col. Tomlin. How many hands required?

Col. W. A driver, one to let it off the platform, five to bind, two boys and one man to shock. These will not be sufficient in rank wheat; more than five hands required where the crop is fifteen bushels to the acre, or more.

The President. Does it cut wheat clean?

Col. W. Generally it does; but not if the straw be damp.

President. Does the blue grass interfere with your fallowing?

Col. W. There is a blue grass which is a serious obstacle to fallowing; do not think it would answer to drill in wheat where such grass exists. But this is entirely different from the Kentucky blue grass, which is valuable.

Col. Tomlin. Have you any wire grass?

Mr. Carter, of Loudoun. There is no such thing amongst us.

Col. Wright. Sheep sorrel is the worst thing we have to contend with; injures the corn crop by growing around the corn hill.

Col. Tomlin. Do you hoe corn?

Col. Wright. No; never.

Mr. Carter thought it not advisable to dispense with the use of the hoe; hoe labor is paid for according to his experience of Loudoun farming.

Mr. Edmunds had never seen but one man who did not hoe corn; regarded it as an indispensable operation in the tillage.

Col. Tomlin. How far apart do you plant corn?

Col. W. Three and a half feet, and two stalks to the hill. It does not "fire" thus planted. Usually cultivated on a level.

The five field system is more generally practised in Loudoun, taking off one crop of corn and two of wheat. Average crop of wheat ten to twelve bushels per acre. Mode of putting in is first to plough, then harrow, then sow and cross harrow. Have sowed broadcast, and have drilled; see no difference in the yield.

Col. Tomlin. Do you broadcast or plough your land in beds?

Col. W. Broadcast; no necessity for beds with us.

The President. Does the drill facilitate your operations?

Col. W. Yes. One hand and two horses will sow eight acres a day; a saving in the quantity of seed and one horse and seedman.

Col. Tomlin would regard five acres as a good day's work. How long does it take one hand and two horses to prepare an acre for seeding?

Col. W. About a day. The harrow used is large and heavy.

Mr. Carter. There is a material difference

between harrowing after the plough and *harrowing in* the grain, which should be taken into the estimate.

Col. T. Do you lap in seeding?

Col. W. We do not where we cross harrow.

The President inquired as to the difference in the time of seeding different varieties of wheat.

Col. W. The 20th to 25th of September is the usual time for commencing; with the Mediterranean and earlier varieties, some commence as early as the 8th. We commence fallowing from 25th July to 20th August—immediately after securing our hay. Use the large three-horse coulter-plough; some use the left handed plough.

Mr. Edmunds. On which side of the furrow do the two horses walk?

Col. W. On the land not ploughed.

Col. Tomlin. Width of your furrow?

Mr. Carter. About ten inches.

Mr. Boulware, of King & Queen. I never saw a left hand plough. Ours are all right hand.

Col. W. A farmer once came to my region of country who had never seen a left hand plough, and was persuaded to take one. He now refuses to use any other.

The President. I presume you have no single-horse left hand ploughs.

Col. W. None single.

President. What time do you thresh?

Col. W. Immediately after we have finished seeding—in October usually. We are not interfered with by the weevil.

President. Weight of your wheat?

Col. W. Ranges from fifty-two to sixty-four pounds.

Mr. Carter. Fifty-eight is merchantable.

President. The same here.

Col. W. When the wheat is dry, with six to nine horses we thresh two hundred to two hundred and fifty bushels per day; general average two hundred; fourteen hands required to serve the machine; this includes the first fanning.

Col. Tomlin. Do you put away chaff and stack your straw?

Col. W. Yes. The straw is carried off from the drum by a wire sieve about four and a half feet wide. It is composed of three leather thongs connected by a number of wires. The wires are placed three-quarters of an inch

to one inch apart. By the revolution of this sieve the straw is carried out of the way of the drum. The spiked machine, not long since introduced, we consider a great improvement.

Mr. Edmunds. We do not use it; the beater is, however, very much used.

President. Do you salt your straw?

Mr. Edmunds. Some do. It saves the trouble of salting stock.

Col. Tomlin. Do you plough your land dry, Mr. Carter?

Mr. C. I never saw land too dry to plough for wheat. It is hard work, but beneficial. There are many varieties of wheat sown with us. The white blue stem is much appreciated, but the red purple straw holds its own in opposition to all others.

Mr. Edmunds. Much spelt in it?

Mr. C. I have not seen it. (Here a conversation ensued about darnel, cockle, spelt, &c.) I have lost more by heavy, beating rains than by cheat, spelt and all other causes combined. Harvest time is about the first of July. In 1845, a very remarkable year, it was over before that time. Twelve bushels is about the average produce per acre. I do not mind the quantity of straw, so I have a good season.

Col. Tomlin. Difference between-corn and fallow land?

Mr. C. Eight bushels from corn land, and fifteen from fallow. Loudoun is deeply indebted to clover and plaster. In 1800 her lands were valued at one dollar and fifty cents per acre; in 1850 at twenty-seven dollars and fifty cents.

Mr. Edmunds. When did the use of plaster commence?

Mr. C. About the year 1810. We apply in the spring one bushel to the acre.

Col. Tomlin. Do you cut your clover?

Mr. Carter. Rarely. We haul out little manure, except upon our meadows.

President. What do you do with your immense heaps of manure?

Mr. C. Since stock grazing has become profitable, we find it advantageous to apply it to our meadows.

Col. Tomlin. Use lime?

Mr. C. No; cannot get it; would cost in small quantities eighteen or twenty cents per bushel. (Related anecdote of a widow on the subject.) Our favorite lands are red—not

what are called the red lands of Albemarle—but more of a chocolate color than those lands.

Mr. Edmunds. Is it a close soil? underlaid with rock? does water sink in it?

Mr. C. There is no base rock. Water does not interfere with our cultivation. Never been analyzed that I know of.

Mr. E. What is your market?

Mr. C. Alexandria, except as to those near the Baltimore and Ohio Railroad. Cost is seventy-five cents a barrel for flour; fourteen to sixteen per bushel for wheat. Some haul to market themselves. I think nothing is saved by it.

Mr. Edmunds said that in Halifax, tobacco was the chief crop. Not a large crop of wheat made, though it had increased of late. The custom is to thresh early—July and August—from shocks or dozens. Cost of getting it to market twenty-two cents per bushel—one dollar per barrel for flour. Manure not applied to any extent to wheat, but mostly to tobacco. Lime has not been much used except by Mr. Bruce. Our wheat liable to lodge; tried all varieties; red May, once the favorite, but the "Ward" white bearded is at this time preferred; early purple straw is beginning to be introduced; the Mediterranean lodges and is liable to be killed by spring frosts.

President. What is the product in your county?

Mr. Edmunds. Eight to ten bushels on the large farms; cannot say as to the county generally. Some of us use plaster.

Col. Tomlin. When do you sow wheat?

Mr. E. Whenever we get ready. We observe no particular rotation of crops.

President. What is your best soil?

Mr. E. The chocolate, or mulatto soil, is preferred.

Mr. Boulware, of King and Queen, called on. After apologies,

Col. Tomlin asked what had been his expense in the use of the drill.

Mr. Boulware said he had been much disappointed in it; had felt much interested and gave much attention to it; after experience, had found that the points would accumulate little masses of grass as they passed along the prepared ground. The result was that the wheat came up in bunches. This evil was partially removed by elevating the *tines*, so as

to prevent them from penetrating so deep.—The shallower they went into the ground, the less was the quantity of grass accumulated. But this did not remove the evil. The drill was made by Sinclair, of Baltimore.

Mr. Edmunds. How deep do you follow?

Mr. B. Should say about eight inches; sometimes with the chain in front.

[Some conversation about the advantages of covering wheat deep and shallow.]

Mr. Edmunds. I sow the same amount, whether I plough in or harrow in.

Mr. Boulware. In using the drill, I considered uniformity as its greatest advantage, although I did not succeed.

Mr. E. What advantage have you derived from the use of plaster?

Mr. B. None whatever. I know of no man in King & Queen who has gained anything by the use of plaster—not even after liming. I am not on tide water, but not far above the head of tide water.

Mr. Edmunds suggested that the sea breezes might have some effect favorable to its use.

The President confirmed this suggestion.—He knew that on the Eastern Shore of Maryland, plaster did operate beneficially; three crops of clover had been cut in one season, where it was used in that locality.

Mr. Boulware said he had seen a statement, by a British writer, to the effect that it would not act where there was salt water, but did not believe it.

Dr. Maupin, of the Richmond Medical College, was requested to make an explanation of his views, which he did briefly. The action of plaster in promoting vegetation was attributable to its affinity for ammonia. By attracting the ammonia of the atmosphere, *that* was carried to the roots of plants and their growth promoted.

[Conversation between Messrs. Maupin, Boulware and others.]

President. What would be the effects, Dr. Maupin, of a combination of the carbonate with the sulphate of lime?

Dr. M. The carbonate of lime would have no effect on the sulphate of lime. But it might have effect upon the other constituents of the soil. It would have considerable effect upon the vegetable matter of the soil.

Mr. John Seddon, of Fredericksburg, in-

quired of Mr. Boulware, how long, after he first limed, was it before he saw good results?

Mr. B. said he had limed for ten years. It was five before he experienced its benefits.

Subsequently, Mr. B. stated that there had been two opinions as to the relative value of oyster shell and stone lime. Once, the preference had been given to stone lime; now oyster shell is preferred as the more valuable.

Mr. Gooch. Mr. Carter, of Shirley, says he has not been able to perceive any difference in their effect on the land. Their relative value to the farmer consists in the relative cheapness and convenience with which he can procure them.

Mr. Seddon said he had seen sorrel grow on limed land.

After conversation between several members—

Mr. B. referred to what Col. Wright had said about there being an abundant growth of sorrel in Loudoun where plaster had been used freely, and lime to some extent.

Some gentleman here remarked that it would often grow for a year or two after the application of lime, and then disappear from the land.

Mr. Edmunds. We have not much sorrel in Halifax.

Mr. Seddon. You have broomstraw, which is a sort of acid.

Mr. E. Yes, limestone is everywhere.

Mr. Warner Taliaferro. It is on the best lands in Gloucester.

Col. Wright. We have very little in Loudoun.

Mr. Carter. We have, in Loudoun, sorrel to a great excess occasionally, and then it disappears for years. It is preceded generally by a dry season.

Mr. Taliaferro gave some interesting statements as to the use of lime in Gloucester.—Plaster is rejected, as its effects are regarded as precarious. Experiments had, however, to be made with that which was old, since there were no mills for grinding it. Mr. James Roy always mentioned its efficacy, and was enabled to apply it fresh by making his plantation force beat it up, on rainy days. Both clover and plaster are used only on small lots—nothing being sown with the small grain crops.

Col. Wright (in answer to a question previously asked) said he had no particular time

for sowing clover. The months of January, February, March and April were the season. He preferred to sow in January; had tried fall seeding, and failed; does not harrow in the seed; sows on corn-land which has been put in wheat; does not sow orchard grass; sows timothy for grazing, and we graze heavily.

Mr. Edmunds. Has any one tried harrowing wheat in the spring?

President. I have. It has no effect except on the clover. Half a gallon of clover seed, dragged in, is better than a gallon not.

Mr. Seddon recommended the rolling of clover seeded on corn-land wheat, in preference to harrowing.

The President stated his practice of grazing his sheep upon his wheat in the spring; found it beneficial.

Mr. Edmunds. Will grazing with sheep in the fall be a preventive against fly?

President. Cannot say. Some of my neighbors do it, and think it has that effect.

A subject for next meeting was selected, one of the members appointed to commence the discussion, and the Club adjourned.

From the Germantown Telegraph.

SETTING POSTS.

Posts in fences should never be *cased*. The durability of timber depends exclusively, either upon the free, unrestricted circulation of the air, or upon its entire exclusion. It is not unfrequently the case that to induce a more finished and elegant appearance, the post of ornamental fences, in the immediate contiguity with houses, offices, &c. are "*cased*," a practice which results in the unavoidable deterioration of the posts unless, indeed, the operation be remarkably well performed, and the exterior carefully protected by paint, or some impervious coating, capable of resisting the action of the atmosphere, and excluding, utterly, the wet. In this way, thoroughly seasoned wood will endure a long time, while wood that is wholly green, or but partially or imperfectly seasoned, will, by the deleterious action of *confined air* which cannot escape in consequence of the insulating casing, decay more speedily than if openly exposed. Charring posts, adds greatly to their durability.

For the Southern Planter.

WHEAT AND CORN.

Mr. Editor.—As I do not like to be idle nor behindhand, and the new year has made its appearance, I take this opportunity to inform you that I have been greatly gratified in reading the Planter the past year; there is a magic in the Planter; it always puts me in a good humor, if I am not in one when I receive it, and I would advise all who are in the habit of being out of humor, to take the Planter. And as I have been so well compensated for my dollar, I enclose your dollar for the present year in order that you may have the use of it as I use the paper.

By your permission I will suggest a few thoughts on the culture of wheat and corn and their comparative value to the grower, and I do this because it is often said that wheat is our dependence and corn is an unprofitable crop. It is not so with me; I always do best when I raise the most corn. Land that will make ten bushels of wheat will make twenty bushels of corn. Well, we will commence the statement.

One acre for wheat, 1 bushel of seed,	\$1 00
Preparation of land, seeding, harrowing, &c.	1 50
Cutting, raking, hauling, threshing, fanning, &c. 20 cents per bushel,	2 00
	<hr/>
	\$4 50
Yield per acre 10 bushels, at \$1,	10 00
	<hr/>
	\$5 50

One acre in corn yield 20 bushels, at 50 cents per bushel,	\$10 00
Cultivation, per acre,	\$3 00
Seed corn,	12
	<hr/>
	3 12
	<hr/>
	\$6 88

The fodder and shucks will amply pay for saving corn and fodder, and according to the above statement we have in favor of corn one dollar and thirty-eight cents. For fear of not being fully understood, I will give the gross proceeds of one acre of corn, say yield 20 bushels, at 50 cents per bushel,

At 10 bills to the bundle of fodder we have 500 bundles, worth	2 50
Tops and shucks, worth	1 00
	<hr/>
	\$13 50

Now allow \$3 50 for work and \$3 50 for saving, and we have	7 00
	<hr/>
	\$6 50

But we all know that it will not take seven hundred dollars per acre to cultivate and save one hundred acres in corn, and I am, therefore, brought to the conclusion that corn is more profitable than wheat.

C. C. SNOW.

Promised Land, Jan. 3, 1851.

FRUIT.

In no way can delicious and yet luxurious food be so abundantly, cheaply, and universally obtained as in the cultivation of fruit. However hilly, rugged and rocky the land, although it refuse the plough and the scythe, there is scarcely an acre in our country which will not produce good fruit of some kind. The marsh which bids defiance to cultivation without expensive drainage, yields whortleberries and cranberries, each highly valuable in its way.—The glen and mountain side may easily be made prolific in the cherry, pear, peach and apple; and on the more favored portions of the soil, where wheat, corn, and grass are easily and abundantly produced, will fruit repay the room and labor in a rich reward. It is believed that a good fruit tree will yield more real market and nutritive value than any other crop that can be procured from the soil. No labor of the farmer, and no use of the soil pay more abundantly than when applied to the culture of good fruit. As a tree of choice fruit covers no more land than a poor one, it is of the first importance to make the best selections, and render the most faithful attentions to its full development. Man does not use one half the quantity of fruit that he should do as an article of food.—Thousands of farmers live mainly on salt beef, pork, and fish, who might have the luscious luxury of fruit at every meal, every month in the year. Besides, man is adapted in his nature to subsist principally on a vegetable and fruit diet, and would be far more healthy, happy and long lived for so doing. As an article of general food, fruit in its vast varieties is without a parallel.—Our friends, at a distance from cities, will find it a source of profit, as railroads now bring them so near the market as to enable them to compete with farmers in the suburbs of cities. We have felt keen regret in travelling in different portions of the country to see so little attention paid to the subject of good fruit—and have been still more pained to see orchards forests of miserable sour, rusty apples, only fit for vinegar. Let fire-wood be made of such miserable trees.

The Spaniards have a maxim, that a man is ungrateful to the past generation that planted the tree from which he eats—and deals unjustly with the next generation unless he plants the seed of that fruit, that it may furnish food for those who come after him. Thus when a son of Spain eats a

peach or pear by the road side, wherever he is he digs a hole with his foot in the ground, and covers the pit or the core.—Consequently, all over Spain by the road side, and elsewhere fruit in great abundance tempts the taste and is ever free.—This is an easily wrought charity, and an evidence of a noble soul. Let this practice be imitated in our own country, and the weary wanderer will be blest, and bless the hand and liberal charity that ministered to his comfort and joy. We are bound to leave the world as good or better than we found it, and he is a selfish churl who basks under the shadow, and eats the fruit of trees which other hands have planted, if he will not also plant trees which shall yield fruit to coming generations. No young man should vote or marry until he has planted at least one tree as an evidence of good citizenship. Who planted the elms of Boston Common, and of New Haven, so justly celebrated? Surely not the present generation. Let fruit trees in like manner be bequeathed, that unborn generations may be grateful to this.—*Phrenological Journal.*

From the Genesee Farmer.

VIRGINIA LANDS AND FARMING.

Every one who aspires to be an intelligent cultivator of the soil, should know something of the climate and agricultural capabilities of all the great farming States of the Union. Among these—from its central position, its noble rivers, fine harbors, and being on the Atlantic—Virginia, which has been the mother of so many States, has peculiar claims to the study of every American. It contains 61,352 square miles, or within a fraction of 40,000,000 acres. Vessels drawing fifteen feet of water, come up the Potomac to Washington and Georgetown. Vessels of considerable tonnage are seen at the Cities of Richmond and Petersburg. The canals up the James and Potomac rivers are already completed far into the interior, and are still being extended. From steamboat navigation on the Ohio to Norfolk, through the James river canal, will be about 500 miles. Every body knows that Virginia lies in the valley of the Ohio, as well as on the Atlantic ocean. A loaded canal boat at Portsmouth, which is the southern terminus of the Ohio canal, is over 1000 miles from the City of New York, via Cleveland, Buffalo and the

Erie canal; and its cargo must be re-shipped twice in crossing Lake Erie. By ascending the Kanawha and descending the James rivers, in Virginia, the ocean is reached in half the distance, and without breaking bulk. This canal is not yet completed. The canal from Cumberland to Alexandria, in the District of Columbia, will be in operation all the way by the first of August.

There are several important lines of railway now being constructed in Virginia, to facilitate travel and the transportation of agricultural produce to tide water; but we need not stop to name them. It may not be amiss, however, to remark that Norfolk has one of the finest harbors in the world; and that the Potomac, up to Washington City, is more of a *hay* or arm of the Chesapeake than a *river*. Tide rises and falls some four feet, and the river above the bridge is two miles wide. On the Virginia side of the Potomac is the farm of GEORGE WASHINGTON PARKE CUSTIS, the step-son and adopted child of the illustrious PATER PATRIÆ. This farm contains 1100 acres. We shall take another occasion to describe this fine estate and its farming operations. Its extensive meadows yield two tons of hay to the acre, an article which sells in Washington at from \$15 to \$20.—Think of land within a few miles of the metropolis of the United States, (which is growing rapidly and must soon contain 100,000 inhabitants,) selling at from \$7 to \$12 an acre! Every acre of this land, with northern husbandry, will yield \$30 worth of hay a year. The question may be asked why farming lands are so low in the "Ancient Dominion." This we will answer without fear or favor, according to our own views of the subject.

Forty years ago slaveholders in the State of New York had learned that negroes were worth more to grow tobacco in Virginia and Maryland, than to raise grain in the now Empire State. Obeying the laws of trade, thousands of slaves were carried south, and slaveholding ceased in New York and New Jersey. Now, two-thirds of the slaveholders of Virginia have learned that negroes are worth more to grow cotton, rice, and sugar at the south, than tobacco and grain further north.—Obeying still the law of demand and supply, thousands of slaves are annually leaving Virginia and migrating south to grow cotton, sugar, and rice, for the civilized world. Constantly hearing of the fortunes made in Georgia, Alabama, Mississippi,

Louisiana, Florida, and Texas, the most enterprising planters of Virginia are leaving their partially exhausted estates for the El Dorado of a warmer climate, where slave labor is worth *two prices*. Can it be otherwise than that the millions of deserted acres in the Old Dominion should be offered to the enterprise of free labor at mere nominal prices?

If all the women in the world insist on having twice as many yards in each calico dress as formerly, and twice as many dresses in the course of a year, who, pray, but Virginia slaves, are to raise cotton enough to supply the incalculable demand? The cotton mills of England alone exported over thirteen hundred million yards of cotton cloth last year, and one hundred and fifty million pounds of cotton yarn. Let the men of filthy who read this article, call to mind how sparingly sugar was used when they were boys, and then reflect a moment on the way in which poor people, as well as rich, now consume this product of slave labor. So rapid has been the extension of commerce, and so great the improvements in the machinery for ginning and the manufacture of cotton, that the world wants, or affects to want a world of cotton fabrics. In short, the day is near at hand when all the slaves in the Republic will either cease to be bondmen, or be employed in the culture of the three great southern staples, cotton, sugar, and rice.—Who, then, are to cultivate the northern slaveholding States? Who plant thousands of wealth-giving orchards? Who grow wool and hemp, mules and horses, cattle and hogs, and make butter and cheese, wheat and corn, in the best climate in America? It will be freemen, happily exempt from all the peculiar cares and untold vexations incident to, and inseparable from, the relation of master and slave.

It is a great mistake to suppose that a farmer is thought the less of at the south, in any State, if perchance he tills his fields with his own hands. Mr. Toombs, a member of Congress, from Georgia, and himself a worthy planter, says that one-fourth of all the cotton grown in that State is planted, hoed, picked, ginned, and put up for market, by free white laborers. It is a law of Providence, and one not easily evaded anywhere, that man, whether bond or free, "shall eat bread in the sweat of his face." Citizens that care not to own slaves, but seek to realize an independent living by their own industry, or by hiring help, may do so in Virginia quite as well

as in New York. As a general thing, the soil in the former State is not rich, but it is susceptible of easy improvement. It lacks lime more than any other element of crops. There are, however, extensive districts of fair wheat lands, and corn is grown in all parts of the State. Rotation of crops and the art of making money by the dairy business and wool growing, are little thought of, and less practised. The climate and the almost spontaneous growth of the best grasses, favor sheep-husbandry and stock-growing of all kinds. The finest sheep that we have ever seen are brought into Washington from Virginia. Colonel Ware, of Clarke county, has left with the writer, in the Patent Office, samples of wool from an imported ram, which clips 18 lbs. of wool a year, and weighs 420 lbs. His fat wethers sell readily from \$25 to \$35 a head. Being a gentleman of fortune, he buys, regardless of price, the prize rams and ewes at the Royal Agricultural Fair in England, nearly every year; and seeks mutton sheep and long, combing wool.

The demand for good roadsters, not race-horses, is most encouraging to the breeders of this noble animal.

To the man of small means, *fruit culture* promises the largest and surest profit. From the Potomac to the Rio Grande, the consumption of good apples will be limited only by the supply. Pears, peaches, grapes, quinces, plums, cherries, and berries of all kinds, are scarce and high.

The annual expenditure of several millions in this District, (Columbia) by the General Government, and the drawing to a focus of so many gentlemen of wealth, and their families, from so vast an empire, operate greatly in favor of skillful farmers and gardeners in this neighborhood. Both land and manure are cheap and abundant. It is said, (we know not with what truth,) that the one hundred square miles, or ten miles square, do not contain over one thousand slaves, and these are nearly all house servants.

Instead of migrating to the far off outskirts of the Republic, her enterprising sons had better come and settle down near her pulsating heart, and reap all the advantages of the best markets on the continent. A thousand dairies cannot supply butter and cheese to the cities of Baltimore, Washington, Alexandria, Georgetown, and to the planters engaged in growing tobacco and other crops. Why bring butter five hundred miles south, when it

can be better made within an hour's drive of the consumer? We have seen better butter sold in Ohio at six cents a pound, than sells for thirty-one cents in Washington. On the 4th of July potatoes sell at a dollar and a half a bushel. In this climate they should be abundant at a third of the money, at this season of the year. Garden vegetables are abundant and generally good; but the supply does not last as skill in the keeping of them would effect, provided skill was possessed by the growers of these perishable commodities. How to keep potatoes, cabbage, beets, carrots, turnips, onions, apples and other fruits, is a science of great importance to all housekeepers. The warmer the climate, the greater the difficulty, and the larger the profit to those that study and master the art. It is knowledge, more than land, that we all lack; although we are apt to crave many acres, while we begrudge the appropriation of a few dollars to purchase the most useful books.

In Virginia, agricultural skill and rural science may command a liberal reward, because the field is large and the laborers few. Prejudice alone keeps honest, enterprising farmers of small means, from growing hay at fifteen dollars a ton on land worth from five to ten dollars an acre, which is now vacant. Potatoes and butter sell at three prices, because it is too small business for planters to produce them. Such defective tillage and husbandry can not long endure, and those that make judicious selections of land in Virginia now, may do better than the best did in New York forty years ago. Negroes are going where their labor is most profitable.

For the Southern Planter.

GRAZING WHEAT.

Mr. Editor.—Those who wish to guard against injury from fly in their wheat and wish to grow three heads where they would only have two, and wish to make a field of wheat head out evenly and ripen all about the same time, can do so by putting a large flock of sheep on their field the 15th of February, or between that time and the 25th of March or 1st of April, letting the lateness of the spring govern as to time of taking off. The closer the wheat is eaten off, and the quicker it is done, the better. It is a good plan to put on sheep at night when the ground is frozen, or partially so, and keep them off in the day when the ground is soft. This may be done at any time

during the winter. Whenever wheat looks badly no matter whether it is from the effects of fly or worm, it matters not, grazing will be found to improve the crop. But it must be done with proper judgment on the part of the farmer. If you graze too late in the spring you will injure your crop. Two or three trials, with close observation, will satisfy any one.

I. I. HITE.

Buffalo Springs, Virginia.

For the Southern Planter.

AGRICULTURAL IMPROVEMENT.

Mr. Editor.—My two former communications occupied as much space as I am entitled to for some time, and I should regard it as only justice to others if this should be excluded or postponed to make room for their productions. You were very fortunate in deciphering my chirography as well as you did, though its illegibility caused some of the sentences to read awkwardly and rather unintelligibly.

My object has been to excite amongst the agricultural community increased interest and communication, being satisfied that the destinies of our proud old Commonwealth imperiously require it. Some of the topics were touched so slightly as to require further illustration and explanation. I am thoroughly convinced, by observation and consultation with the most judicious and enlightened individuals, that it is almost impossible to perfect any general and extensive system of improvement, without a greater approximation to the farming, in contradistinction to the planting system. I stated in a former part of these articles that a temporary residence in a portion of country which had passed through this change, and consultation with the most enlightened citizens, had enabled me to collect materials and form conclusions more valuable than my own; and my frequent allusion to others is for the purpose of imparting more importance to my remarks, and if I should unintentionally err I shall deem it fortunate if it has the effect of eliciting a correction. I was struck forcibly with the remark of Mr. B. W. Harrison, the former sensible delegate from Loudoun, who, in an extensive law circuit had enjoyed an opportunity of ocular observation of the effects of a transmutation from the planting to a farming system. He stated that the mere fact of the change caused a rise in the price of lands in consequence of the increased profit and income from the labor employed. An individual will tell you that he cannot reduce his surface for corn because he does not make enough with it. And the reason why he does not, is that the number of ploughings, and increased cultivation otherwise, is such as to require so much labor of horses and hands that one crop is necessary to make another—not to speak of the liability

of the land to wash and deteriorate. The first thing which excited my astonishment in travelling through the farming region (Fauquier, Loudoun, Clarke, Frederick, Jefferson, &c.) was the small number of hands employed on the farms. I think, Mr. Robert E. Scott told me there was scarcely a farm in Fauquier with more than ten hands on it. This is accounted for, in part, that it is, to some extent, a grazing or stock country. But this is not the chief reason. I was told by some that the hands performed more labor than in other sections. This I did not believe. I was told by others that it was the relinquishment of tobacco; and this at first did not fully satisfy me. Notwithstanding the paucity of laborers, the fences were in better condition; branches better cleaned up and ditched; every thing, in fact, indicated greater amount of labor bestowed on such matters; and I could not account for it, or see where it came from, or why our large number of hands could not exhibit even more beneficial results. I became satisfied that it was the immense amount of labor required by the tobacco crop chiefly, and the sustenance required to sustain it, that was the true solution. I confess that, though born and raised on a tobacco plantation and accustomed to it every year of my agricultural experience, I had not formed any accurate idea of the amount of labor expended on a tobacco crop. It is a fact, almost incredible on its first announcement, that from the time you first commence the preparation of the land to the cutting of the plant, the hands pass over the ground not less than fifty times, in the various operations of preparing the land, planting, working, topping, priming, worming, suckering, &c. &c. One of my most judicious and attentive neighbors told me he counted fifty times, and remarked that no person who would do it, would ever make another plant. Another gentleman said he went over his fifty times and ought to have gone over ten times more. I heard several gentlemen, who at first were incredulous as to the number, count over upwards of forty times hastily, and the remark was made by one of the most sensible, judicious and successful, that the labor after cutting was as great as before. This review is sufficient to establish the great amount of labor required and which is withdrawn from other operations, and also the quantity of provisions essential to its support. Now, if a man intends to keep the same number of hands on a farm, they might as well be employed unprofitably as to be idle. The first thing to be done in giving up the tobacco crop, is to reduce the number of hands in a corresponding degree, or which is the same thing, enlarge the surface of cultivation, particularly for grain, or such as requires no cultivation from seeding to reaping (wheat, oats, rye, various grasses, &c.) To illustrate, I will suppose fifteen hands to be engaged on a tobacco plantation, and there is frequently double this number. Relinquish the tobacco crop, and nine

hands, or perhaps less, can cultivate the portions usually allotted to grain, and also fallow and sow in wheat the surface generally reserved for tobacco. They can do more than this. The question occurs, will not the hire and expense of these six hands fully compensate for the loss of the tobacco crop under *ordinary* circumstances? Then you have the wheat on the land usually reserved for tobacco, additional forage, less consumption of corn, additional pasturage, improvement of land, &c. relief of most unpleasant operations, such as burning plant-beds, cutting and firing tobacco, frequently requiring night work, &c. Notwithstanding all these considerations I am not, by precept or example, urging its abandonment, particularly while the high prices continue, but I deem it of vast importance to discuss the subject now, preparatory to future action. I will again revert to the fact that I have never yet seen an estimate of a large per cent. on capital invested wherein tobacco was an ingredient. I regard the lands in the tobacco-growing region as originally the most fertile in the State, and if they had been cultivated on the improving system, would have been the most valuable and high priced; still they can be bought at from five to ten dollars per acre, while inferior lands in other sections sell for five times the amount, corroborating the remark of Mr. Harrison, previously alluded to. I am aware that many will ascribe the difference to the peculiar adaptation of other sections to the system I advocate; but it is a well known fact, that the whole tobacco region is peculiarly adapted to clover and meadows, properly managed, grain, &c. When the different improvements are completed for the transportation of grain and introduction of manures, some change of system will be imperiously demanded, and it is not now too soon to discuss the subject.

I will, in this connexion, again refer to the obstacle growing out of the exposure to cheat on the fallow system without the intervention of a hoe crop. Since hearing of a calamity similar to my own, (I mean wheat turning to cheat,) sustained by Mr. Lewis E. Harvie, of Amelia, I am satisfied such occurrences may happen under the most judicious system of preparation and management. My ground was well fallowed, the wheat then turned in with a single turning plough, and the surface then well harrowed; the seed wheat clear of cheat; indeed, it was procured from the limestone country, on account of its peculiar excellency as seed wheat. It is with much reluctance that I touch the controverted question, as to the transmutation of wheat into cheat. But it may be a subject peculiarly important to the accomplishment of my object to find a corrective. I am aware that the most *scientific* farmers contend, with ingenious, theoretical arguments, against the change. But it is one of those subjects in which an ounce of fact and observation is worth ten pounds of *argument*. I will first relate what has occurred on

my own plantation under my own particular inspection. The year after wheat was reaped from a field the volunteer wheat came up so thickly that it was carefully guarded, with the expectation of securing a fair crop of wheat, but when it headed every spire produced cheat. Again: while hauling up my wheat a bundle "fell by the wayside." The grains shattering out on a hard surface there was a growth of vegetation resembling wheat in all respects, except that the entire product was cheat. The band was still visible on the decayed straw. Precisely this occurrence was communicated some years ago by Mr. Richard K. Meade, Sr. then of Brunswick. I will also refer to a communication of this fact: that a hillside was sown in wheat, and soon after a washing rain carried portions of earth and wheat on the unbroken surface below, which produced cheat, while that above was wheat. Again: a writer states that he deposited twelve grains of wheat in his garden; that after it was several inches high his riding horse bit it down, and that there were eleven spires of cheat and one of wheat. My scientific friends must excuse me for my incorrigibility on this subject. I only discuss it as a means of ascertaining a corrective so important to the system I regard so essential to the permanent improvement of the country. Mr. Harvie, whose opinion as to the transmutation accords with my own, (and with whom alone I could make a confident stand,) recommends, I believe, hard grazing preceding the fallow. One effect of this, I suppose, is to make the land closer and more compact, and a better protection to the wheat from freezing, &c. As I remarked in a former communication, a crop of oats or peas immediately preceding will accomplish the same object. It is essential first to ascertain the cause as the best avenue to a remedy. I think where wheat succeeds wheat some shattered grains may remain in an imperfect state, or the cavities in the fallow may injure the roots. Indeed any thing which impairs the strength of the root or stem may produce the result. My friend, Mr. Bolling, has promised to watch that portion of the Sandy Point estate owned by the son of Mr. William B. Harrison, on which there was a fallow for wheat immediately after harvest, not from choice or judgment, (for I do not suppose he has ever had an opportunity of learning any but good farming,) but because the whole open land purchased by him had just been in wheat. If no cheat comes there I shall ascribe it to the superior manner in which it was sown, and agree that in that instance my theory fails of an argument to support it.

The next material for agricultural improvement which I shall notice and enforce' is the formation of agricultural clubs, fairs, &c. It would be impossible to devise a greater stimulus for owner, overseer and negroes, than the knowledge that their crop is to be examined by a number of judicious farmers who are to criticise the management of it in all respects,

its condition, &c. They are said to infuse new spirit into every ramification and department, fully compensating for any trouble or expense they may occasion. There may be some who may dislike any criticism on their management, and prefer a concurrence in all their notions and practices. As for myself, while a concurrence may impart more confidence in my own impressions and practices, I still do not feel that I gain really anything by it. It is only when my management is objected to, and substantial and convincing reasons urged for a change, that I feel really benefited; and it is by this intercourse and interchange of views amongst farmers that each one has the benefit of the experience and observations of all. There seems to be at this time some enthusiasm on the subject of a fair, in Petersburg or Richmond, during the present year, and it will be very discouraging if it is permitted to subside. It is not only a proper occasion for the assemblage of farmers in discussion of the various subjects of their avocations; but the best opportunity which can be afforded of examining the best collection of agricultural implements and exhibition of various descriptions of improved stock, &c. Having procured some of the full bred Oxfordshire or Cotswold sheep, I have no hesitation in uniting in the general current of recommendation, judging from appearance, as I have not had them long enough to afford any other evidences. I have for many years had no other kind than the "Frederick" sheep, said to have been formed by judicious crossing by the late R. K. Meade, of Frederick, and superior to any one breed. I have regarded them as very far superior to the ordinary thin woolled sheep, as it is reasonable that a thick fleece is a better protection from the inclement weather, and I do not think I have ever known one to lose the wool and become naked, as is usual with some. The different kinds of cattle have been so extensively tried as to need but little remark. I have preferred a cross of the Durham, both for working and lactical qualities. The largest collection of highly improved Durhams in this region I suppose may be found on the highly improved farm of Mr. Corbin Warwick. It is impossible to view them in the same pasture and precisely under the same treatment with other cattle, without being convinced of their vast superiority. Indeed, he has succeeded, in a remarkable degree, in the improvement of all kinds of stock, as well as every thing else he has undertaken; and if a premium is ever offered for the highest product per acre on fertile lowgrounds combined with hillsides recently galled and gullied, I would be glad of the privilege of entering Beaver Dam against the field, or *fields*. Upon the subject of stock, I feel great hesitation and doubt concerning hogs. I have tried different improved breeds; nearly all, however, require grasses, slops, &c. and to be kept near the house, which is incompatible with raising fowls. When turned off

to "root or die," the result frequently changes the form of the expression to "root pig and die." It cannot be doubted that a lean hog, fed in the ordinary way, will consume eight bushels of corn after being put up to fatten; and considering what is previously required, the operation is a source of loss as well as trouble; still it will not do for farmers to buy all their bacon. It is, however, a subject which should engage the serious consideration of all farmers, and some plan should be devised to afford a supply at a less ruinous sacrifice.—Mr. David G. Williams, whose unsurpassed judgment and success in all such matters are acknowledged, is in the habit of fattening his hogs altogether on meal made into a kind of mush in troughs, and, no doubt, derives much advantage from the grinding process, and I have no doubt that the crushing operation, formerly described, would be highly advantageous. Col. George W. Townes, the late estimable representative from Pittsylvania, once described to me verbally (and I hope will publish it,) a system which he said would ensure an abundance of pork on favorable terms. I think the general outline was to devote the labor of one inferior hand exclusively to the cultivation of vegetables and attention to that especial object. I have no doubt that the practice of sowing oats or rye for them will be found highly advantageous. I know no subject more in need of the consideration and discussion of farmers than this, and I refer to it with the hope that it will command them from persons qualified to do it justice. From what I understand, Mr. John B. Harvie, of Powhatan, would give valuable information on the subject of raising and fattening hogs, as well as other departments of judicious agricultural operations.

I desire to invite attention to the most highly approved agricultural implements as a subject meriting much greater importance than it commands. There is scarcely any subject on which greater diversity may be expected, not only because there are so many possessing rare advantages, but because different soils require different implements. It would be difficult in this region to command general use for any plough costing more than six dollars; and from my observation and experience I should not hesitate to give the preference to Mayher's No. 19 or 20 for two horses. It is generally sold under the appellation of the "Premium Plough." I am strengthened in this preference by the concurrence and decided testimony of Mr. Old, of Powhatan, and the Messrs. Irby, who think there is a difference in the amount and quality of work in six weeks, compared with other improved ploughs, to pay the cost, and who would not probably accept of any other double plough, with the obligation to use it. Indeed, one of them remarked to me, a short time since, that the effect of running them in the field with other ploughs was to break the ground irregularly. My overseer undertook to point out the furrows made by

this plough in connexion with others some time after the operation was performed. Although heavy, it turns well an unusual surface with ease to the ploughman and horses, and is remarkable for durability. I have ordered some castings for double and single ploughs, with what I regard improvements, dispensing with rods where they are apt to break under heavy pressure, providing loops for handles, &c. I am satisfied that the subsoil plough is entitled to much more attention than it commands. When following a turning plough it breaks the ground very deep without burying the surface mould, and is the most effectual remedy for drought—the most formidable antagonist of corn. I was struck with an expression of Mr. R. B. Bolling, (who prepares all his land for corn in this way,) that he scarcely knew any thing about the effects of drought. It would require a very long dry spell to evaporate the moisture from a soil so deeply penetrated and pulverized. I have previously alluded to its advantages in breaking up roads, cow-pens, and indeed, any hard ground. Land is not so apt to wash when thus ploughed, and a much larger area is thus provided for the sustenance of the crop; and I think we had better be satisfied with less extent of surface, thus prepared, than a greater, without it. I regard the folding harrow as an important and useful improvement, as it accommodates itself to the concavity or convexity of the surface, and is peculiarly valuable amongst stumps, as one half can be raised to avoid a stump or rock while the other is performing its purpose. If the Gauge, or Echelon plough, could be made lighter, I have no doubt it might be used advantageously. It resembles three small mouldboard ploughs, each succeeding filling up the furrow of the preceding; and in some soils would be very useful, from its expedition in seeding wheat, cultivating corn, &c.

I think I have now committed a sufficient trespass in these numbers on your own patience and that of your readers. I hope none will suspect me of the vanity of making any display of my own practices and designs. I have generally preferred to refer to individuals whose names imparted value to any of their operations; and when I have necessarily alluded to my own I have felt that it was a "step from the sublime to the ridiculous." It is certain that a more frequent interchange of sentiments amongst farmers and communication of their practices, right or wrong, would be advantageous, as the effect might be produced of establishing the right and correcting the wrong; and I have been less reserved in the communication of my own views in consequence of the hope that they might elicit the criticism and correction of others.

EDWIN G. BOOTH.

Nottoway County, Virginia.

We hope the gentleman referred to will respond to the call made upon them.—*Editor.*

For the Southern Planter.

CASTRATION OF COLTS.

Mr. Editor,—Enclosed you will receive my annual subscription to your excellent journal, which please give me credit for.

By-the-by, whilst I have pen in hand, let me say to the author of an article on the "Castration of Colts from the twelfth to the twentieth day," which appeared in a number of your last year's volume, that by giving publicity to that article he has caused the death of some six colts and mules. Experienced hands operated on five, and advised the owners to postpone the operation. I have been in the habit of altering every species of stock on my farm from the time I commenced farming, and I never lost a colt or mule before last spring. Seeing said article in your journal and placing confidence in the author's opinion, based on practice, I concluded to alter the finest mule I ever saw of its age on the twelfth day after it was foaled; it ruptured in less than thirty minutes, and every effort to save it failed—Thus we buy our experience, placing confidence in the opinions of men we know nothing of.

Yours,

T. E. BLUNT.

Sussex, Feb. 11, 1851.

P. S.—One of the gentlemen who operated on the twelfth day on a young mule, last spring, which died, had previous to that time operated on "seventy-six and had never lost the first colt or mule."

T. E. B.

For the Southern Planter.

GREEN CROPS.

Mr. Editor,—I find from a'l I have lately read in different books on agriculture it seems to be the general opinion that the ploughing in of green crops is recommended as the proper system for returning to the soil the exhausted vegetable matter which has been destroyed by cultivation. Some few, I believe, are of opinion that the fully matured dry crop, such as clover, &c. will more permanently benefit the exhausted soil. I think this matter by no means settled. I wish it fully discussed. I must confess that my opinion leans to the side of the dry crop fallow. Let us hear from the experienced.

A.

GINGERBREAD SNAPS.

Take a pound and a half of flour, half a pound of butter, the same of sugar and molasses, and an ounce of powdered ginger. Mix well before the fire, add five table-spoonfuls of thick cream, work into a stiff paste, roll out thin, dip a wineglass into flour, cut out the snaps with it, and bake in a quick oven.

DRYING COWS BEFORE CALVING.

In England it is customary to milk cows till within a week of their calving, and a late writer says, that when the animals are well kept, no injury need be anticipated, as the cows almost invariably do well. It is said also, that its adoption prevents the intumescence and induration of the udder, and other serious and painful affections to which these useful animals are so liable at the time of calving.—*Ger. Telegraph.*

For the Southern Planter.

MEETING OF THE VIRGINIA STATE AGRICULTURAL SOCIETY.

At a general meeting of the Virginia State Agricultural Society, held by appointment at the Capitol in the City of Richmond on Tuesday, the 18th day of February, 1851:

The President took the chair and delivered the annual address.

Mr. Richard B. Gooch presented a statement of his account of receipts and disbursements made for the Society by him, accompanied by vouchers.

The Treasurer also presented a similar account, showing a balance in his hand to the credit of the Society of \$117.

Both of which accounts were received and ordered to be filed.

On motion of Mr. Boulware, of King & Queen, the following resolution was adopted:

Resolved, That a committee be appointed by the Chair, to report to an adjourned meeting to-morrow, a project of the best mode of applying legislative aid to agriculture.

And a committee was appointed, to wit: William Boulware, of King & Queen; Gen. Corbin Braxton, of King William; Josiah W. Ware, of Clarke; William P. Moseley, of Buckingham; Col. Robert L. Wright, of Loudoun; Col. Thos. J. Randolph, of Albemarle; Allen T. Caperton, of Monroe; William P. Taylor, of Caroline; Charles Carter Lee, of Henrico, and Bernard Peyton, of the city of Richmond.

Mr. William H. Macfarland offered to the meeting the following resolution:

Resolved, That the thanks of this Society be presented to the President for his able and interesting address, and that he be requested to furnish a copy for publication.

And the question on the adoption of the said resolution being propounded by the mover, it was unanimously agreed to.

On motion of Col. Bondurant, it was

Resolved, That a committee be appointed to nominate officers of the Society for the ensuing year,—and a committee was appointed, to wit: Col. Bondurant, Mr. Macfarland, Mr.

George Taylor, Mr. Richard S. Ellis, of Buckingham; Mr. Dabney P. Gooch, and Mr. Jas. T. Sutton.

On motion,

Ordered, That when this meeting adjourns, it will adjourn to meet in this Hall on to-morrow evening, at half past seven o'clock.

The meeting then adjourned.

—
Wednesday Evening, Feb. 19, 1851.

The Society met in the Hall of the House of Delegates, according to adjournment.

On motion of Mr. C. B. Williams, it was proposed to amend the Constitution of the Society, by striking out at the close of the second section, the words "or election districts, and be equal in number to the House of Delegates," and insert instead thereof the following: "and shall consist of not less than three nor more than ten members in each." And further to amend by inserting after the word "President," in the third section, the words, "or Chairman of the Executive Committee."

[The effect of the first of these amendments will be to change the form of the *General Committee*. Instead of having it constituted according to the number and locality of the members of the House of Delegates, it will be formed of separate committees in each county, consisting of not less than three nor more than ten members. The effect of the second will be to enable the *Executive Committee* to have a separate Chairman, instead of the President of the Society, as at first provided for.]

And the question being put upon each of the said amendments, they were agreed to by the Society.

Mr. Boulware, from the committee appointed to report a project of the best mode of applying for legislative aid to agriculture, made a report, in the form of a bill, for the adoption of the General Assembly, and recommended that it be presented to that body, and their favorable consideration invoked.

Whereupon Mr. Macfarland moved, in substitution of the said report, the adoption of the following:

Resolved, That it is indispensable to any system of sound and successful agriculture in the State, that the Legislature should extend to it a liberal and enlightened care, and that among the means of effectually promoting it, are the incorporation of this Society, and the creation of an Agricultural Commission, consisting of a Commissioner and one or more Chemists.

The question being put, the substitute was adopted. The resolution was then agreed to.

On motion, it was

Resolved, That the same committee be requested to present the subject of the last resolution to the notice of the Legislature, in such form as the committee, in their discretion, may judge proper, and that Mr. Macfarland be added to that committee.

Col. Bondurant, on the part of the committee

appointed to nominate Officers of the Society for the ensuing year, made a report, recommending the re-appointment of the present officers, with the exception of the Corresponding Secretary, who had declined to serve, and in whose place Mr. Charles Carter Lee was nominated.

And then, on motion, the said officers so recommended, were unanimously elected, as follows:

President—ANDREW STEVENSON of Albemarle.

VICE PRESIDENTS.

1. William Old of Powhatan.
2. William L. Goggin of Bedford.
3. William P. Taylor of Caroline.
4. Alexander Brown of Nelson.
5. Robert E. Scott of Fauquier.
6. Samuel Hansbarger of Augusta.
7. E. B. Jacobs of Warren.
8. William G. Brown of Preston.
9. Edmund Ruffin, Jr. of Prince George.
10. James C. Bruce of Halifax.
11. Thomas M. Bondurant of Buckingham.
12. Francis Mallory of Elizabeth City.
13. John Willis of Orange.
14. Josiah W. Ware of Clarke.
15. Charles L. Crockett of Wythe.
16. William G. Caperton of Monroe.
17. William Campbell of Nottoway.
18. George Townes of Pittsylvania.
19. Hill Carter of Charles City.
20. Willoughby Newton of Westmoreland.
21. Robert Grattan of Rockingham.
22. Charles James Faulkner of Berkeley.
23. G. D. Camden of Harrison.
24. John M. Preston of Abingdon.
25. John C. Crump of Nansemond.
26. E. P. Scott of Greensville.
27. William Boulware of King & Queen.
28. Richard Sampson of Goochland.
29. Robert L. Wright, Wheatland, Loudoun.
30. George R. Taylor, Big Lick, Roanoke.
31. Hanson W. Chapline, Wheeling, Ohio.
32. P. H. Steinbergen of Mason.

Executive Committee.—William H. Richardson, Chairman; Bernard Peyton, William F. Gaines, Joseph Sinton, James M. Morson, Jos. Corbin Burton, Charles B. Williams.

Corresponding Secretary.—Chas. Carter Lee.

Recording Secretary.—Anthony Robinson, Jr.

Treasurer.—Lewis D. Crenshaw.

On motion of Mr. Lee, the following resolutions were adopted:

Resolved, That we deem it essential to the success of this Society to have annual exhibitions of agricultural products and implements, and to distribute prizes thereat for the best specimens of each sort—and that to procure the means of doing so, the members of this Society, and especially the officers thereof, be required to exert themselves to procure, as speedily as possible, the enlargement of its numbers, and that the Executive Committee be instructed to procure subscriptions from the citizens of Richmond, or such town as it may

be resolved on to hold these exhibitions in, to aid in discharging the expenses thereof.

Resolved, That the Executive Committee be authorized to hold an exhibition as early as next November, and to notify the Society of the precise day thereof—and to make use of any of the funds of the Society which may be in its treasury to defray the necessary expenses of such exhibition.

On motion of Mr. Williams, it was

Resolved, That copies of the proceedings of the Society be published under the direction of the Executive Committee in a supplement to the Southern Planter, at the expense of the Society, for general circulation.

On motion, the Society then adjourned.

STATE AGRICULTURAL SOCIETY.

The State Society "to Improve the Condition of Agriculture, Horticulture and the Mechanic Arts," held its annual meeting in the Hall of the House of Delegates on Tuesday and Wednesday evenings, February 18th and 19th. It was opened with a very interesting and impressive address from Mr. Stevenson, the President. A copy was requested for publication, and if our readers do not see that, we shall endeavor to give them "some of the points."

The meeting was better attended than any we remember to have seen in the capitol, and we are sure that the best feeling prevailed. A common desire to advance the agriculture of the State seemed to animate all who attended.

It was the universal conviction, however, that the aid of the State Legislature is essential to adequate success. Accordingly, measures were taken to petition that body on the subject.

A charter, with an annual appropriation, to be paid *pari passu* with the contributions of members, is absolutely needed, and further assistance, as presented in the project of Mr. Ruffin, for the appointment of an Agricultural Commissioner, would repay the treasury and the tax payers tenfold on the outlay. The details of that and other plans were not discussed in the general meeting. The truth is, a better arena for considering the minutæ of systems of husbandry and its improvement is to be found in the familiar Farmers' Club, where all may speak without restraint. It is for the General Society to recommend plans and to concentrate opinion upon the modes of culti-

vation best adapted to different soils. It ought to be a nucleus around which farmers can rally, and which the public who are not farmers may look up to with confidence. That our Society will become such, we feel satisfied. We invoke for it a helping hand from all of our community who are not contented at seeing their means go to foster societies elsewhere—societies at the North, but too often made the medium for selling trash implements, or yet more trashy cattle.

For the Southern Planter.

APPLICATION OF PLASTER.

Mr. Editor.—As the time approaches for applying plaster upon clover, it seems to me appropriate for the agricultural papers to inform those interested in the subject how plaster acts as a stimulant upon the grass. I have before me a number of the American Agriculturist, of New York, for February, 1851, on page 44, the writer says that plaster acts beneficially upon clover, except in a small district near the sea: and then goes on to say that ammonia is brought to the earth by dews, rain and snow, and the plaster acts as collector of this fertilizing agent. The language of the Agriculturist seems to me too general. How does the plaster act as a collector of ammonia? and why should it not collect the ammonia as well in the neighborhood of the sea as at a distance from it? If the above queries can be answered, perhaps the farmer might proceed understandingly to apply the plaster. I take it for granted, that the writer could not have meant that the plaster acts chemically by forming a new set of combinations, to wit: that the sulphuric acid of the plaster, leaving the lime free, unites with the ammonia, forming a sulphate of ammonia; if this be so, then the affinities of sulphuric acid are *mis-arranged*, for ordinarily the works on chemistry give them in the following order: 1st Baryta, 2d Strontia, 3d Lime, 4th Ammonia. Unless the above arrangement is wrong, the sulphuric acid can never leave the lime in plaster to form sulphate of ammonia. I have dwelt somewhat upon this matter, because it is no unusual thing to see plaster recommended as very proper to be used in stables to arrest the ammonia evolved from stable dung.

Now, according to the list of affinities above alluded to, the plaster must be inert in arresting ammonia in stables. The reasonable deduction seems to me to be, from the above stated facts, that some salt of sulphuric acid should be used, in which the acid has a weaker affinity for the *metal or alkali*, forming the base of the salt, than it has for ammonia, say for instance, sulphate of iron, (copperas,) the acid

will readily yield up its iron to form a new compound with ammonia. I am perfectly satisfied that plaster is a most valuable application on clover, and this from actual experiment; but how it acts is unintelligible to me; will you or some of your correspondents give information on this subject. Again, says the Agriculturist, it (plaster) does not act beneficially near the sea the first question that naturally arises is, is it true that plaster does not act well on the sea coast? if this be a fact, perhaps it may furnish a hint as to how plaster acts upon clover. I should suppose that there is as much ammonia in the dews, rains, and snows upon the sea coast as in the interior—I see no reason for a contrary opinion. The above is penned to draw out such information on the subject of applying plaster to clover, as any person may feel disposed to contribute.—In touching upon the subject of chemistry, I can but congratulate the agricultural community upon the action of the Visatorial Board of William and Mary College, they announce that agricultural chemistry will constitute a portion of the collegiate course at that institution. in my humble judgment this is the most judicious move made by that body for some time past; at least the practical effect for such training, will be to send out scientific farmers to till the earth. I cannot but believe that the visitors will be sustained by the farming community; their effort at least ought to meet the approbation of those who desire to see the agricultural interest of this State duly attended to.

In conclusion, Mr. Editor, I would suggest that in some future number of your valuable paper, you would publish an analysis of the main agricultural products of this State; if your friends know what is in the crops raised by them they will understand what to put in the land to make them. Myself, I have been often at a loss what to apply to my crops not knowing what was in them.

Another suggestion and I shall bring this communication to a close; it is this, when your subscription is due, adopt the plan pursued at one time by an Editor some times since, in this State just print over the top of the cover the following words, "you owe dollars to the Southern Planter." It will be an easy matter to fill up the blank with the proper sum. I do not know whether this plan would be any violation of the post office law, of this matter perhaps you have better opportunities to know than the writer.

The advantage of the above plan will be this: judging others by myself, we only wish to know or rather to be reminded, of what we owe, and we are ready to pay it. And now I bring this communication to a close, wishing you great success, which you, in my opinion, most richly deserve.

C. * *

Gloucester C. H. Feb. 3, 1851.

For the Southern Planter.

HORTICULTURAL REMARKS FOR MARCH, 1851.

PREPARED BY A. D. ABERNETHY, FLORIST, GRACE
STREET, RICHMOND, VIRGINIA.

Admit air freely to greenhouses, pits, &c. giving a larger supply of water to the plants, most of which will now be growing rapidly, and syringe the foliage frequently during dry weather. Roses, geraniums, verbenas, and other plants, which may be in vigorous growth, should have plenty of light and room given them, and tied neatly to stakes. Plants in bloom, such as camelias and azaleas, should have a conspicuous situation in the greenhouse to show them to advantage. Cactus, if they are showing flower buds, should be more plentifully watered to enable them to develop their flowers. Tender roses, &c. may now be uncovered and trimmed. Flower beds and borders, if not previously done, should be spaded and raked over. Trim and finish planting out evergreens and box edgings. Towards the end of the month, sow annuals, plant out verbenas, carnations, pinks, roses, &c. &c. lay gravel on walks, after all the ground operations are finished. As a substitute for gravel, (where it can be obtained,) tan bark may be used. The walks in our gardens are laid with it, and it is found preferable to gravel, inasmuch as no weeds grow upon it, does not wash with heavy rains, is found more agreeable to walk upon, and lasts almost as long as gravel without requiring to be renewed, it would also answer well for private carriage ways where not much travelling is done.

In the kitchen garden most vegetable seeds may now be sown except snaps, beans and the cucumber tribe, which should be delayed till the beginning of April. Plant out early yolk cabbage and lettuce from the hot bed. Clean off asparagus and strawberry beds, covering the latter with straw or pine beards, to keep the fruit clean.

PROFESSOR JOHNSTON, OF DURHAM.

The Durham gentleman who was in this country last year and lecturing (by invitation from various associations,) upon agricultural science, has returned to England, and, like some other tourists, has published *his* notes on American agriculture. Professor J.'s reputation had preceded him. His work upon agricultural Chemistry was well known and highly appreciated. He commanded large audiences and much applause. We have not seen a copy of the "Notes;" but some of the press are

handling the Doctor without gloves in connexion with them—some of the press who could find no adjective too complimentary whilst he was here. He has certainly fallen into some grievous errors in regard to our agricultural statistics, if these papers quote him correctly, and in nothing more than in his remarks upon the Southern States. We will not, however, prejudice, but wait for the book itself.

FARM MANURES AND THEIR MANAGEMENT.

There is nothing connected with the agricultural interest of so much importance as the manufacture (if the expression be allowable,) of manures. This will be admitted by all farmers; and yet, how many opportunities for the accumulation of manure are allowed to pass unnoticed, and how little care is taken in the best and most efficient use of those, which are thrust upon us. Good ploughing is most assuredly of vast influence upon the fruitfulness of your fields; but good manuring is a *sine qua non*. The human body requires food for its nourishment and health—so it is with mother earth. Over work and no food will as surely exhaust the one, as it will kill the other.—Again and again, have the readers of the Planter been advised and entreated to make use of all the means in their power to the production of larger quantities of rich manures, than they have hitherto been in the habit of making; yet, we greatly fear, that our efforts have resulted in exerting too little influence. None, no not one of the vast number of farmers in the world, will be found to dispute the soundness of the position heading this article, and yet, (we will lay a wager on it,) there is not a farm of one hundred acres in Virginia, on which hundreds of cart loads of manure are not annually wasted and lost, for the want of a little energy and a little care. Is there a reader, who, at comparatively small expense, cannot double the quantity and quality of his manure? If there be one who doubts, we would say to him try it—try it faithfully, honestly, and if the result of his labor does not enable him to answer the question in the affirmative, we will knock under and confess that we know nothing about the matter.

In connexion with this subject, we most cor-

dially recommend the following chapter on "Manures from Domestic Animals and their Preservation," taken from Professor Norton's work, entitled "Elements of Scientific Agriculture," and with the permission of our readers, we will continue the subject of manures in our next number.

"The manure of various domestic animals is, in this country, most commonly employed as a fertilizer, all other manures being used in comparatively small quantities; and yet even these are seldom preserved and applied so carefully as they might or ought to be.

"The principal varieties are those of the ox, the cow, the hog, the horse, and the sheep. Of these, that of the horse is most valuable in its fresh state; it contains much nitrogen, but is very liable to lose by fermentation. That of the hog comes next. That of the cow is placed at the bottom of the list. This is because the enriching substances of her food go principally to the formation of milk, the manure being thereby rendered poorer.

"The manure of all these animals is far richer than the food given them, because it contains much more nitrogen. This is for the reason that a large part of the carbon and oxygen of the food are consumed in the lungs and blood generally, for the purpose of keeping up the heat of the body. They are given off from the lungs, and also by perspiration and evaporation through the pores of the skin, in the form of carbon and water.

"From animals fed upon rich food, the manure is much more powerful than when it is poor. In England, for instance, where they fatten cattle largely on oil-cake, it is calculated that the increased value of the manure repays all of the outlay. This is the reason why human ordure is better than manure from any of the animals mentioned above, the food of man being rich and various.

"All these kinds of manures should be carefully collected and preserved, both as to their liquid and solid parts. The liquid part, or urine, is particularly rich in the phosphates and in nitrogen. This part is, by very many farmers, permitted, in a great degree, to run away, or evaporate. Some farm-yards are contrived so as to throw the water off entirely; others convey it through a small ditch upon the nearest field. The liquid manure which might have fertilized several acres in the course of the season, is thus concentrated upon

one small spot, and the consequence is a vegetation so rank as to be of very little use. Spots of this kind may be seen in the neighborhood of many farm-yards, where the grass grows up so heavy that it falls down and rots at the bottom, and has to be cut some weeks before haying time, producing strong, coarse lay that cattle will scarcely touch.

"The proper way to save this liquid is to have a tank or hole, into which all the drainings of the yard may be conducted. If left here long, this liquid begins to ferment, and to lose nitrogen in the form of ammonia, which, it will be remembered, is a compound of nitrogen and hydrogen. To remedy this, a little sulphuric acid, or a few pounds of plaster may occasionally be thrown in. The sulphuric acid will unite with the ammonia, which will remain unchanged, not being liable to evaporate. Others prefer to mix sufficient peat, ashes, sawdust or fine charcoal with the liquid in the tank, to soak it all up; others still pump it out, and pour it upon a compost heap. One point is to be noticed in the management of a tank. Only the water which naturally drains from the stables and yards should be allowed to enter it; all that falls from the eaves of the buildings should be discharged elsewhere. Regulated in this way, the tank will seldom overflow, and the manure collected in it will be of the most valuable and powerful description. The tank may be made of stone, brick or wood, as is most convenient, and need cost but very little.

"While the liquid manure is actually, in many cases, almost entirely lost, the solid part is often allowed to drain and bleach, until nearly every thing soluble has washed away, or is exposed in heaps to ferment without any covering. In such a case ammonia is always formed and given off,—it may often be perceived by the smell, particularly in horse manure. The fact may also be shown, by dipping a feather in muriatic acid, and waving it over the heap. If ammonia, in any quantity, is escaping, white fumes will be visible about the feather, caused by the formation of muriate of ammonia. This escape of so valuable a substance may be, in a great measure, prevented, by shovelling earth over the surface of the heap, to a depth of two or three inches. If this does not arrest it entirely, sprinkle a few handfuls of plaster on the top; the sulphuric acid of the plaster will, as before, unite with the ammonia, and form sulphate of ammonia.

"Manures containing *nitrogen* in large quantities are so exceedingly valuable, because this gas is required to form gluten, and bodies of that class, in the plant; this is particularly in the seed, and sometimes also in the fruit. Plants can easily obtain an abundance of carbon, oxygen and hydrogen from the air, the soil and manures. Not so with nitrogen. They cannot get it from the air; there is little of it in most soils, and hence manures which contain much of it, produce such a marked effect. Not that it is more necessary than the other organic bodies, but more scarce; at least in a form available for plants. The same reasoning applies to phosphoric acid. It is not more necessary than the other inorganic ingredients, but still is more valuable, because more uncommon in the soil, and in manures.

"In all places where manure is protected from the sun, and from much washing by rain, its value is greatly increased.

"Horse manures, particularly, should not be left exposed at all; it begins to *heat* and to *lose nitrogen*, almost immediately, as may be perceived by the smell. It should be mixed with other manures, or covered by some absorbent earth as soon as possible. Almost every one who enters a stable in the morning, where there are many horses, must perceive the strong smell of ammonia that fills the place. I have seen, in some stables, little pans containing plaster of Paris or sulphuric acid, for the purpose of absorbing these fumes, and forming sulphate of ammonia. The liquid which runs from barn-yards and from manure heaps, is shown, by analysis, to consist of the most fertilizing substances; and it is calculated that where this is allowed to wash away, as is the case in many instances, the manure is often reduced nearly one-half in its value. I have seen yards where it was almost worthless, owing to long exposure.

"The farmers of this country need awaking up on the subject of carefully preserving their common manure. In Flanders, every thing of the kind is saved with the greatest care, the *liquid* manure of a single cow for a year, is valued at ten dollars; here it is often allowed to escape entirely. *Either they are very foolish, or we are very wasteful.*"

Bean straw should not be wasted. It is good feed for sheep, and they are very fond of it.

For the Southern Planter.

POUDRETTE.

Mr. Editor,—I purchased two barrels of the Lodi Manufacturing Company of New York, last spring, and used it by the side of guano on corn. I found it to be a perfect take-in. I think it contained a good portion of glass and ground shoeholes, of which we can be supplied without going to the North. One bushel of ashes is worth two of pourette, judging from the experiment I made.

I. I. HITE.

TO CORRESPONDENTS, &c.

The publication of the present number has been delayed by causes beyond our power immediately to remedy. With much regret, we have been compelled to lay over much valuable manuscript matter furnished by correspondents and to cut short our own remarks. The interesting proceedings of the Club meetings; the proceedings in the Legislature and Convention on agriculture, with statistics, &c. are omitted necessarily.

Essay on Guano, by George W. Read, Esq. was received too late for the March, but shall appear in the April number.

Joel Younger has also been received, and shall have a place in the April number.

For the Southern Planter.

REST TO LAND.

Mr. Editor,—As there seems to be much interest at this time manifested throughout the world upon the subject of agriculture, and as no part of it, perhaps, needs it more than our good old State of Virginia, I have thought proper to say a few words upon the subject, taking into consideration an old saying that a "fool may ask questions which will require a wise man to answer." As my letter may, upon the whole, be considered rather a "point no point" communication, yet I wish to draw from some of your experienced and scientific correspondents something upon the subject of *rest to land*, or as I believe it may be called *fallow*, in the first signification of the term. I have for many years been a close observer of the progress of agriculture in some of the middle counties of our State, or I might more properly have said, the *downward progress*.—Perhaps for more than a thousand years agriculture was divided into its *art* and *science*. The *art* of agriculture has not been much improved upon until very recently. The same

may be said of the science. In the region of country alluded to all that was known (in fact but little more now) in relation to the improvement of the soil was REST and MANURE. The idea of *rest* was the same as that attached to a weary or broken down horse or ox; and no doubt the term arose from the supposed similitude. And however agricultural chemists denounce the simile, I cannot but believe our forefathers were not as ignorant upon the subject as has been imagined. They surely were not silly enough to believe that *rest* entirely reinstated the exhausted land to its *original* state of fertility; for they saw evidently set forth before them a gradual and sometimes rapid decline of their best lands, notwithstanding the *rest* they were enabled to give them. That they saw after *rest*, or fallow the next succeeding crop better than the last preceding, we cannot doubt, nor can the agricultural chemist deny the fact upon the most scientific theory. Our worthy progenitors knew, from experience, the ameliorating effects of many manures upon such exhausted lands. Yet they knew not the theory of their operation, nor knew they the theory of exhaustion better than that of the worn down horse. Leaving the land to *rest*, with nothing more than the supplies of nature, was discovered to improve its production; leaving the jaded animal to *rest*, with nothing more than the usual artificial supplies of food, &c. it was discovered that his weary limbs received strength and his next efforts would greatly surpass those preceding his *rest*. The simile did not stop here; it was, no doubt, observed that the fresh cleared or virgin soil, when first beginning to give way, would, upon *rest*, much more evidently show its benefits than the long tilled and exhausted soils of the same original quality. So of the noble young steed; when first broke to the harness, if wearied by excessive and constant exertion, sooner recovered by *rest* than the same animal encumbered with years and toils of the most unremitting labors. The comparison was carried a little farther; they both, after so long a time, even under the *rest* system, were brought to the same denomination, "*dead*." The earth being exhausted of every thing which could afford subsistence to man or beast, with the necessary labor and expense of cultivation, was turned out and considered *dead* to all the benefits of mankind; just so with the horse. Now comes the difference. The animal at first, *for a time*, might be considered *dead*, in the same sense of the exhausted land, yet by *rest* and a suitable supply of nourishment was revived and restored to usefulness and profit. But from the nature of the animal this could not last always. The animal dies not only to usefulness but becomes extinct; then there is an end to the comparison. But the soil after being considered *dead* may not only be revived for a time, but, under proper management, rendered profitable, and so continue to the end of time. Of this fact, too, our forefathers were not ignorant; they knew full well,

from experience even with the limited amount of science connected with agriculture, that could they keep up on all their lands a sufficient degree of manuring with the materials known, they might keep them in good condition *ad infinitum* with the rotation then practised; at least they had no reason to doubt it. Yet a crisis has come with the *land* as well as the *horse*. If the traveller on his wearisome journey breaks down his aged horse, *rests* him and feeds him, rubs him and nurses him, and at length after all his appliances, cannot keep him up, he dies! what must he do? Without the means of purchasing another, "he takes to his heels!" the journey must be completed. Just so with the owner of our lands years ago; he has gone on clearing and cultivating, wearing out and killing, until he finds, with a large company around him, his land is *dead*, that his resting and manuring, (such as he has done,) will not enable him to support his family; he takes to *his heels*, also; he leaves for the West.

Now for the moral. If you will ride about our country you will find a vast majority of our lands "*dead*;" our farmers are living upon these lands by the application of such manures as they raise upon their farms, and they in very small quantities. Large fields are cultivated, and but little made over a support; and but for the tobacco patch, which exhausts most of the manure, and the hire of negroes on public works, their situation would be much *worse*. A few, however, from reading agricultural papers and other agricultural works have begun to think the "*dead land*" may be revived, and that even the less evanescent principles of the "*dead horse*" may aid in resuscitation, and perhaps the very gases of his body may be brought into requisition.

But to return to "*rest*" for land in its worn out state for improvement. The writer once tried "*rest*" on an old farm, naturally poor, for eighteen years, and found but little benefit from it. A worthy farmer of my acquaintance tried it as long, and in disgust, at last divided his land into shifts, by fences, and grazed closely as long as he lived, that he might in his latter days make some amends for the loss of milk and butter for so long a period.

Now, my fellow farmers, let us attend to the lights springing up from agricultural chemistry; let us avail ourselves of them. The first ray of light—true light, I mean, I ever saw, was "Ruffin's Essay on Calcareous Manures." I may say the next was "Edward Stabler's Prize Essay on the Improvement of Worn Out Lands."

I might say much more on matters and things in general, but lest I might show more of my ignorance by trying to be thought wise, I will draw to a close, hoping, if my communication does no other good, it will excite some one to criticise, pick to pieces, and expose my blunders, and if light and knowledge be thereby increased, my end will be gained.

ARICOLA.

TO PREVENT MOTHS GETTING UNDER HIVES.

Pound a handful of peach leaves and salt them well and strew them over the bench under the hive. In two or three days, repeat the operation. The flavor of peach leaves is offensive to the moth, but not to the bees.

Another Remedy.—Raise the hive about an inch upon four little pebbles. Take a piece of half-inch pine board from three to six inches wide and a foot long; cut one side full of creases about a quarter of an inch deep; lay this creased side down under the hive and you will find all the millers will use it to raise their broods under; because it is a secure place from the bees, but not from the bee keeper. If he chooses to watch and kill, he will finally destroy the larvæ and save his honey.—*Am. Agriculturist*.

OHIO AND ITS PROGRESS—THE HARVEST—THE PEOPLE AND GROWTH.

The present year is one of unprecedented prosperity, in this State, taken as an entire community. The epidemic cholera has, indeed, prevailed at three or four points, but the great part of the people have remained in health, and it is doubtful whether the ordinary mortality of the whole people has been at all increased. In the meanwhile, the harvest of this year has been most extraordinary. Not one of the various crops have failed, while the principal ones have been greatly above the average. The wheat harvest of Ohio has unquestionably exceeded *thirty millions of bushels!* Fifteen millions, or one-half the crop, is a most ample supply for the inhabitants of the State. Ohio, therefore, has fifteen millions of bushels of wheat, or three millions of barrels of flour for export. When the reader recollects that in the last commercial year, the entire export of flour, and wheat reduced to flour, from the United States, was but 2,500,000 barrels, he will realize the magnitude and importance of the wheat harvest of Ohio. The export of grain and flour from Ohio *alone* will exceed half a million of barrels, the entire export of those articles from the United States! In other words, Ohio has furnished the entire export of flour for the nation, the entire consumption for herself, and half a million of barrels for other States! No other State can render such an account for any article of produce.—But, this is not all. The corn or maize crop is not less than fifty millions of bushels, which furnishes a surplus to fatten thousands of beef cattle for the Atlantic cities, and tens of thousands of swine to furnish pickled pork for the

Commercial Marine, for the Southern Negroes, and for the epicurean appetite of those who love good hams.

Such is the agriculture of Ohio, specimens of whose splendid products we recently saw exhibited in this city; an agriculture which has grown up within half a century, amidst forests and prairies, and which in that brief period has a comparative growth, unequalled by that of any State in this, or any other country. But the growth of Ohio, in the last year, great as it is, does not perhaps exceed the average growth of this State since 1800, just prior to the State organization.

We have received details enough of the census, now being taken by the General Government, to feel assured that the population of Ohio will reach 2,200,000 people—perhaps exceed that. We had estimated it, when the census was commenced at 2,250,000, 50 per cent. on the last census. Assuming, however, the former number, let us glance at the growth of this State:

In 1800 Ohio had	45,365
1810 “	230,760
1820 “	581,434
1830 “	937,903
1840 “	1,519,267
1850 “	2,200,000

The ratios of increase have been as follows, viz:

From 1800 to 1810	400 per cent.
1810 to 1820	150 “
1820 to 1830	61½ “
1830 to 1840	72 “
1840 to 1850	45 “

By a comparison with other States, it will be seen that the growth of Ohio from 1820 to 1850 exceeds, by far, in its ratio of increase, that of any State in the American Union, where population was as great as at the starting point. And, we may add, that from the census returns, there is no probability that the growth of any of the new States will equal the ratio attained by Ohio, during the last twenty years, when they shall attain as large population as Ohio had twenty years ago.—New York has been the largest and most flourishing State; yet, in the last ten years, the increase of population in New York will not exceed much, if any, one-half the increase in Ohio; and with the rapidly decreasing ratio of growth in New York, Ohio must pass by New York within the next twenty years, and become the first State of the Union!

There is an historical fact connected with the growth of Ohio, which should never be forgotten. Ohio is eldest daughter of Virginia; being cut out of the Territory which she ceded to the Union. Virginia, however, yielded by that act, to the necessity of free institutions. At the end of half a century, we find Virginia containing less than half the white population of Ohio, and to be presented in the first Congress, under the census of 1850, by half only of the representation of Ohio! Thus we find

the mother of the Southern States, falling far behind her daughter, and passing into the rank of secondary communities. This fact is equal to a volume of philosophy. It is far more powerful than all the speeches made, or to be made on the difference of Institutions.

We publish the foregoing from Cist's Advertiser more to show the self-applauding spirit of the Buckeye and his ungracious reproaching of the 'Mother of States,' than because we admit the truth of the statements, or believe in the rationality of the predictions it contains. If the writer is to be credited, Ohio is to become a world of herself. The assertion that Virginia yielded to any necessity, or in other words was coerced, when she gave up her North Western Territory, will be news to some of her gray headed sons.

NOTICES—PUBLICATIONS.

Downing's Horticulturist.—We have received the January, February and March numbers of this elegant Magazine, and again call the attention of our readers to it. The present volume is more beautifully printed and illustrated (if possible,) than any of its predecessors.—We will take pleasure in showing this work to those who wish to see it.

Elements of Scientific Agriculture; by John P. Norton, A. M.—We have received from our friends, Messrs. Morris & Brother, a neatly printed copy of the above work, comprising 208 pages. The attention of the reader is invited to an extract from its pages, "on the Manures of Domestic Animals, and their Preservation," in another column of this month's issue.

The Farmers' Guide, by Stephen's, has reached its 15th number. That now before us contains much valuable information about the soiling of stock, shearing of sheep, and management of wool, hay-making, &c. &c.—Seven more numbers will complete the work, which is for sale by Nash & Woodhouse, of this city.

The Working Farmer has commenced its 3d volume. It continues to be conducted with conspicuous ability by Professor Mapes. A. Longet, 25, Cliff street, New York, has recently become its publisher.

The Stethoscope and Virginia Medical Gazette, edited by P. Claiborne Gooch, A. M. M. D.

Secretary of the Medical Society of Virginia; \$3 per annum. pp. 64.

This is the title of a new Medical Journal just commenced in Richmond, and the first thing of the kind ever undertaken in Virginia. Three numbers have been issued, and they do great credit to the press of Ritchies & Dunnavant. Our contemporaries every where speak well of the work, and commend it to the warm support of the Medical Faculty.

HUSSEY'S REAPING MACHINE.

FARMERS who are desirous of procuring Reapers to cut the coming harvest, are respectfully reminded of the advantages of sending their orders early. If the demand at harvest time should be equal to what the high reputation of the machine appears to justify, it cannot be supplied. The subscriber will use every effort to accommodate every customer, but the earlier the orders are sent, the less chance there will be for disappointment.

Orders must be sent to the subscriber, at Baltimore.

OBED HUSSEY.

Baltimore, March 8th, 1851.—1t

AGRICULTURAL DEPOT

OF

KETTLEWELL & DAVISON,
BALTIMORE,

Manufacturers of Simple and Compound

CHEMICAL MANURES FOR CROPS AND LAND.

THE undersigned respectfully call the attention of the farmers and planters of Virginia to the successful results which have attended their enterprises. In the language of Mr. Irby, of Nottoway, they present no "humbug" to the agriculturist. They have outlived such suspicion, as is amply attested by the constantly increasing demand which each succeeding season flows in upon them.

Their *Renovator* or *Chemical Salts*, a compound of "Biphosphates," "Potash," "Ammonia," "Soda," "Sulphuric Acid," with various other residiums, they contend, has been demonstrated by experience and practical results, to be the best manure for *corn, oats, and grass*, that now attracts public attention. They will, in the March number of the "American Farmer," challenge *guano*, to this test, under the auspices of the Agricultural Society of Maryland, or its President, if they will agree to appoint a suitable person to superintend the experiment.

This article, independent of its prompt action, is composed of elements which gives to the soil a permanent and lasting benefit, subordinate only to lime. Let those who doubt, try the experiment, at least to such an extent, that even failure wont injure them! Price, \$3 per barrel, or \$20 per ton.

"*Pure Biphosphates.*"—This article, to all who have taken the trouble to investigate, or acquire information, has entirely superseded the use of bone dust. It is bone dust dissolved with sulphuric acid, and mixed with a proper proportion of "ammonia." One bushel is computed to be equal to five bushels of bone dust; it is far more prompt, equally lasting, recommended by every distinguished chemist in Europe or America, and has been sustained by every experiment. See experiment (which will appear in the Planter for April,) upon the land of the Hon. Reverdy Johnson, under the direction of Dr Wm. O. Wharton and Dr. D. Stewart, the former one of the best farmers in Maryland, and the latter perhaps inferior to no chemist in the Union. Mr. Johnson used 150 barrels of this article upon his land last fall. The price \$4 per barrel, or \$23 per ton. One to two barrels to the acre.

To TOBACCO PLANTERS, they offer their "Generator," a chemical compound made expressly for the growth of this plant; and they also call particular attention to their combination of ground "plaster and potash," this latter element being almost necessary to the growth of tobacco. This compound has attended universal attraction, and is daily rising in popular favor. One to two barrels sown broadcast, is the proper mode of using it.—"Generator" \$4 per barrel. "Plaster and potash" \$2.50.

GROUND PLASTER.—This article appears to be at one universal price, and because of its cheapness the impression seems to be, that plaster is plaster, forgetful, or not informed, that in no article is there so great a variation of quality, and consequently of value. Its value to the crop being one element, and that varying from 30 to 90 degrees, the farmer who buys the former, pays at \$1 a barrel, just three times as much as the one who gets the latter; and yet neither is the wiser, with this exception, that one praises it as a manure, and the other condemns it.

The attention we pay to this article is now generally known, and every barrel sold by us will be stencilled with our name.

Every description of chemical *residiums*, applicable to agricultural purposes, can be bought of us.

To all who feel an interest upon so interesting a subject, we will, upon application by mail, forward one of our pamphlets, containing explanations, mode of using, and certificates from the most accomplished farmers of Maryland, Virginia and Pennsylvania.—Among others, Col. Horace Capron, Dr. Robert Dorsey, Joseph Crosby, Esq. F. P. Blair, Carville and John Stansbury, Gen. Stiles, Dr. Wm. Mosher, Isaac C. Anderson, Esq. and a score of others unnecessary to enumerate here.

KETTLEWELL & DAVISON.

Office at the wholesale Drug Store of Ober & McConkey, corner of Lombard and Hanover streets. Factory, Federal Hill, Baltimore. mh—1t

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 prize essay 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.

London'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.—1t

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COMMERCIAL RECORD.

WHOLESALE PRICES CURRENT,

Reported for the Southern Planter by

NANCE & GOOCH, COMMISSION MERCHANTS.

TOBACCO—Market firm—no material change in prices during the last week—supply equal to the demand. Our inspections, compared with the same period last year, show a falling off of about 800 hbd. in Richmond. We quote New Lugs \$4 to \$7. Middling Leaf \$8 to \$11. Fine \$11 50 to \$16 25. The crop received thus far, poor and in good order. We would advise planters to prize in bad keeping order, should the crop prove less than expected, prices will probably advance. Holders cannot avail themselves of an advance unless they prize in keeping order.

FLOUR—Dull Sales. Richmond Canal has been made on the bank at \$4 37½. Scottsville \$1 56 to a limited extent. Holders are not disposed to take less than \$4 50 for the former, and \$4 62½ for the latter.

WHEAT—Red 90 cents to \$1. White \$1 05 to \$1 10.

CORN—66 cents per bushel.

OATS—45 to 50 cents per bushel.

BACON—City cured is worth 10 cents. Baltimore sides (new) 9 cents; shoulders 7½ cents.

LARD—In barrels 9½ cents—in kegs 9¼ cents.

GUANO—Peruvian \$50 per ton of 2000 lbs. Patagonian \$40.

CLOVER SEED—\$5 to \$5 50, and wanted.

FLAX SEED—Sales \$1 25 to \$1 35.

BEES WAX—23 cents per lb.—in demand.

FEATHERS—35 cents per lb.

LIME—\$1 37½ from store.

Richmond, March 24th, 1851.

NEW STYLE MEDALLION DAGUERRETYPES IN COLORS.



This splendid improvement must be seen to be appreciated. Our friends are invited to call at the original VIRGINIA SKY-LIGHT DAGUERREAN GALLERY, where may be found all the latest improvements, consisting of the

CELEROTYPE,
by which infant children may be taken in one second;
TALBOTYPE,
or Daguerreotype on Paper, and
HYALOTYPE,

or Daguerreotypes on Glass, which, with every other improvement, may now be obtained at the Gallery, No. 139 Main street, above Governor.

N. B.—Their NORTHERN COMBINATION SKY LIGHT is now open in full operation—it is the largest in the State.

WM. A. PRATT & CO. Proprietors.

MEDALLION DAGUERRETYPES IN COLORS.—We have inspected the above style of Daguerreotypes, lately and so successfully introduced here by Messrs PRATT & CO., 132 Main street. By this process, a relief almost magical, and a variety highly pleasing, is obtained. In some cases, the picture so closely resembles an enamelled miniature, in its ivory tone, as to deceive even an artist; in others from the midst of a dark back ground, appears the "human face divine," in all the vividness of life; then, by still another process, the picture appears entirely upon a brilliant white ground, surrounded by wreaths of flowers. But, we feel our inability to do full justice to these beautiful medallion Daguerreotypes, and must, therefore, request the curious in such matters, to call and judge for themselves. Messrs. Pratt & Co. claim to be the first to introduce the sky-light system into the State, and appear to be constantly inventing something for the improvement of the art. Repair to their gallery and "secure the shadow ere the substance fades."—*Richmond Times.*

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.

ja 1851—tf