

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.*

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For the Southern Planter.

ESSAY ON ENRICHING AND IMPROVING POOR LAND.

BY BENJAMIN F. DEW.

And he gave it for his opinion, "that whoever could make two ears of corn, or two blades of grass to grow, where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together."—*Swift.*

Had this renowned sentiment made its due impression in Virginia fifty, or even twenty-five years since, the discouraging and apparently hopeless poverty of her soil which has driven thousands of her most talented and energetic sons either from her borders, or from agriculture into other more attractive professions, would now have yielded to rich fields and plenteous harvests, under the judicious management and scientific skill of her farmers. But unfortunately, until within the past few years, agriculture has occupied a second rate position among the higher professions of life—as a sort of menial employment requiring no talent to conduct, as supposed, its mere mechanical operations, and therefore better suited for the ignorant and stupid, than for men of talents and education. As might be supposed, under such circumstances, the art and the science of agriculture throughout the State, have been generally, and to a great extent neglected, while profits have declined in a corresponding ratio.

Still, however, by the persevering and masterly labors of Edmund Ruffin, Esq., to whom we owe her highest debt of gratitude, and other prominent Newtons, Carters, Braxtons, &c. a new impulse has been given to her agriculture—art and science have thrown around it their charms; and now, instead of being second among other professions, is indeed behind no other, either in the pleasures it offers, the profits it yields, or the talents it demands for its successful pursuit.

With a view, therefore, of adding something towards this noble object, and of presenting, as I humbly conceive, a rapid and economical method for improving and enriching poor land, I offer the following suggestions and rules for directing the management of a farm.

I remark, then, in the first place, that the highest order of skillful farming, as directed to the im-

proving and enriching of poor land, is that only, which, with team and laborers, preserved in good health and condition, will in a series of years, with a given number of laborers, a given outlay of capital, soil and area of land, produce the largest actual increase of capital, as estimated in the improvement of the land and the other farming profits combined. Thus a farmer may judiciously manage all his agricultural operations on the best and most scientific principles, and yet materially come short of the highest farming profits, by overaction, exposure, or bad feeding, or all, with team and hands—thus lessening the actual value of these two essential farm-items, and producing, ultimately, as it always does, increased expense and diminished labor. Again—whilst every other department of farming may be properly and judiciously managed with the utmost scientific skill in all the details of improving and enriching land, the mere mechanical operations of the farm—the planting, sowing, working and saving the crops, may be so slovenly and badly executed, as again materially to lessen the highest farming profits. Farther—the farming implements, team and laborers may be kept in good condition—the operations of sowing, planting, working and saving the crops, may all be well executed, and still the farmer may come short of the highest farming profits for the want of scientific skill, or that the crops which will enable him properly to adapt to the wants of his soil, the peculiar mode of applying those wants, and, therefore, upon a poor, acid sandy soil, we find an industrious farmer haul pine leaves from an equally poor pine incket, to improve his land, not knowing that the acid which forms the poison of his soil, is but increased by this application, whilst the extremely small per cent. of potash which the pine leaves contain can never pay for the expense and damage in their application to such a soil; or, as has often been the case, mixing fresh stable manure and lime with a view of improving the effects of each on land, not knowing the chemical affinities which control the changes that take place in such a mixture, by which the most valuable element of the stable manure, the ammonia, is lost, whilst the lime is rendered less efficient. Still farther—a farmer may combine all the various requisites to which I have referred, fitting him for the highest order of farming, and yet come very far short of the highest farming profits, for want of what Mr. Ruffin would term administrative skill or business tact—the power of judiciously and econo-

mically providing for the farming wants, meeting expenses, laying in provisions, selling grain, &c.

Having thus, at some length presented, as I conceive, the only true test of any judicious process of improving and enriching poor land, I will now undertake to present, as briefly as possible, that system of farming in detail which, in my opinion, will most speedily attain this desirable result. Of course I have regarded this improvement of land, not as isolated, but as an essential part and prominent object of farming operations, and therefore necessarily dependent for its greatest success, upon the most skilful management of the whole farming operations. Thus, for example, whilst the collection and application of manures—mineral or putrescent, in some shape or modification, are the great means with which to improve land; yet bad rotation of crops, bad ploughing, bad management in the useless and unprofitable consumption of labor, &c., that might otherwise have been employed in the collection and application of manures, are all means calculated to retard and lessen the extent of any extensive effort at improvement.

The remarks, therefore, which I propose making, will be embraced under the following heads, to wit: 1, team and hands; 2, rotation of crops; 3, ploughing; 4, crops; and 5, manures.

TEAM AND HANDS.

As these together constitute the great power with which the whole farming process is carried on, it is needless to say, that every necessary attention should be given to keep each in good health and working condition. Bad feeding, want of proper attention, or overwork, which will cause team and hands to come short of this standard, is simply miserable management. A farmer's orders or rules should always be just, equitable and plain, and made known to each servant. Nothing tends so much to insubordination and confusion on a farm, as a departure from this fundamental rule. Firmness, then, in enforcing these rules or orders, will always make industrious and orderly servants, which, with good feeding, clothing and house-room, as already suggested, will not only preserve the value, but give a most surprising general increase in labor that may be directed to the profitable state, that may be of the farm. I would further hours for feeding, which teaches me that uniform surprisingly to their good and laborers contribute to the effect of this rule, and overtaking, whilst the neglect of this rule, generally causes a greater loss of labor, than any supposed gain by such pressure.

ROTATION OF CROPS.

Common experience, wherever the five-field system has been followed, with perhaps few exceptions, concurs in the opinion that it is best for the improving and enriching of poor land. The rotation with each field is, 1st year corn, with peas sowed for fallow; 2nd year, wheat; 3rd, clover and clover fallow; 4th, wheat; 5th, pasture; and next year beginning the round again with corn. The six-field rotation, however, is regarded by Mr. Ruffin, than whom there is no higher authority, as yet better than the five. This rotation is, for each field, as I understand it: 1st year, corn; 2nd year, peas and pea fallow; 3rd, wheat; 4th, clover and clover fallow; 5th, wheat; and 6th, pasture. I have no doubt this tends to a rapid improvement of land, and may be better for this purpose than the five-field rotation; but with all proper deference

to the high source from whence this opinion comes, I cannot resist the impression that there is an unnecessary narrowing of the cropping surface, whilst by sowing peas in the corn field, under the five-field rotation, when laying by corn, the extra ploughing necessary under the six-field system, for putting in peas, will thus be unnecessary.

I would, therefore, as I follow this (the five-field) system myself, recommend its adoption on all wheat or clay lands, and on what may be termed medium soils, as calculated rapidly to improve, and thus increase their productions. This system of rotation seems as perfect in theory, as it appears in practice, guarding against the over-cropping and hard grazing of the old three-field system on the one hand, and the extreme non-grazing or four-field rotation, of Col. John Taylor on the other. Sterility was the product of the first, and trash and insects the result of the last. The five-field rotation, however, remedies each difficulty. The land is grazed one year in five, which destroys all insects and packs the land. Two green crops, one pea and the other clover, are given for the improvement of the land and support of the two wheat crops, whilst for the corn crop there should be a dressing of lime or marl, thus making a return to the land for each crop taken off, besides the other dressings of putrescent manures of which I shall speak hereafter.

PLOUGHING.

No operation in farming is so important as this. It is the very *foundation* of all successful cropping and profitable improvement of land. If badly executed, the farming labors will be increased throughout the year, the manuring will fall short of its full effects, the beneficial atmospheric influence on the ploughed surface will be lessened, and the crops greatly diminished. The best ploughmen should therefore always be at the plough-handle in the breaking up or fallowing of land. The ploughs and team should be adapted to the land and its condition when ploughed. Common sense will generally furnish, in such cases, the best directions. Care should be taken, however, to plough sufficiently deep, with each slice well turned over, and laid close up against that of the last furrow; and in all cases where there is much vegetable matter, the ox chain should be used to enable the plough successfully to turn it under.

CROPS.

It is astonishing to observe how much unnecessary labor, which might be applied to the enriching of land, is generally expended in the old and croplike process of making crops—especially the corn crop. It originates, first, in the erroneous application of *hand* instead of *horse-power*, with proper implements to do the work, involving a loss of labor which, if properly applied, with adequate team, would work *twice or three times* the usual cropping surface. And in the next place, in disregarding the application of the different hands to such work only as may be adapted to their respective degrees of skill and power. Thus, for example, in putting a man to do what a boy or girl could do as well, or where skill is needed, as, for instance, in the scattering of lime, to keep a set of careless boys and girls at this operation, whilst the most skilful part of the force is kept at some light shrubbing or the like. If the limits of this essay permitted, I might go on to illustrate the effect of these errors in each particular cropping process, and show, particularly in the making of corn, that

at least two-thirds or three-fourths of the labor usually thus expended, might be saved. I know no error in Virginia Agriculture more prevalent, or a source of greater loss to her general farming profits, than this of using hand labor instead of horse-power, whilst the present extremely high price of labor makes the loss yet more onerous. The secret which should be impressed on every farmer is, to be supplied with good teams, and then to select proper implements, rakes, cultivators, shovel-ploughs, and the like, which, if rightly used, will enable the farmer to devote at least two-thirds or three-fourths of his hoe force to the improvement of his barren fields.

Having now considered what I have regarded as of first importance, and too generally overlooked, to wit: 1st, the general test for any judicious process of improvement, and next those peculiar modes of farming operation which tend either directly to improve land, or indirectly, by saving labor and time to devote to this purpose, I will now proceed to consider the last branch of my subject, the immediate means for enriching land.

MANURES.

These are either mineral, or putrescent. The former embraces lime, marl, ashes, and the like; the latter everything that goes to decay, whether the leaves of the forest, the grass of the field, the peat of the marsh, the offal of crops, or the refuse of animal consumption. Here, indeed, is nature's great storehouse for regenerating her worn-out lands and barren fields. The skill with which these resources are used, together with the proper observance of other means already alluded to, constitute the great secret of successfully and profitably improving and enriching poor land.

The poor lands in our State may be divided into two general classes—one accessible for the profitable use of lime or marl, or both, and the other inaccessible for the profitable use of either. The former, besides the limestone region of the State, embraces, for the most part, the exhausted alluvial soils formed in the slopes and valleys of the navigable rivers and their tributaries, generally originally rich, convenient for their application, and rapidly improved by the use of lime or marl.

The other class of poor soil, which is too remote from navigable water to justify the expense of hauling lime, and without marl or limestone to aid its improvement, generally forms the ridge land between our rivers, and for the most part is stiff and originally poor. For the improvement of this land, then, some other resource than lime must be sought to supply its absence. I would recommend the utmost diligence, therefore, in saving all that refuse on the farm which abounds in *mineral* manures. In order to effect this most successfully, I would use an unoccupied out-house for storing all the unleached ashes made on the farm, in order to preserve them in their strongest form for application to the most acid portion of the land—pens, well supplied with mould and rotten leaves, should be near by the kitchen and each cabin, in which pens, it should be the peremptory duty of the servants to throw their soap suds, slops, sweepings and refuse ashes. As we are now seeking for every resource to make up, as far as possible, for the absence of lime and marl, I advise the particular preservation of that strong and highly useful manure, so generally thrown away, night soil. To preserve this manure successfully, I would advise the use of an excavation in a stiff clay soil, at a

proper point about the premises, which should be kept well supplied with mould, rotten trash, and the like, with which the night soil should be occasionally stirred, and supplied with regular sprinklings of ground plaster, which will prevent any offensive odors, and improve the compost. Supposing the five-field rotation adopted, I would apply all these manures thus saved, to the ploughed surface of the field for corn, in order thus, as far as possible, to produce the effect of lime, besides adding other valuable ingredients to the soil.

The animal manures, next, should be carefully preserved; in order successfully to do which, I would advise the free use of mould, rotten leaves, straw, &c., in the stable and stable lot, in the cow and sheep pens, as may be necessary for the perfect retention and absorption of all the manure. I would here remark that, as many cattle should be kept, and no more, as will be kept in good condition on the pasturage furnished under the five-field rotation. Up to this limit I think the raising of cattle may safely go with profit and advantage to the farm. With this digression, I will go on to remark, that ground plaster should be kept, and occasionally sprinkled over these composts to arrest their offensive odors and improve them by fixing, and thus retaining the ammonia.

The litter to supply these different pens should be raked up in the woods as early after the fall of leaves as possible, containing, as they do then, more substance, and being left to rot, may be hauled out when most convenient. I would apply the stable and stable lot manure, also, to the corn field land, and the remainder, if not all covered over from the sources before mentioned, should be treated to as rich litter as the adjacent wood land will furnish. Over this portion of the field covered with trash, I would sow about a hundred pounds of Peruvian guano, before throwing dirt to corn, and then sow the whole field in peas. The guano, in a seasonable year, will pay a fine per cent. in the corn, and leave a good pea fallow. The process, then, is so to manage as every year, if possible, to cover the corn field with something, taking care, however, to shift the mineral application each time to points, where increased acidity of soil may most require its use.

The cow pen manure made in winter, chiefly from the coarse offal of crops, should be applied as early in spring as possible, by top-dressing the poorer parts of the clover field, whilst that made in the summer cow pens I would prefer applying to the wheat crop. The surplus wheat straw I would return, as soon as possible, to the stubble field, and if circumstances justified it, I would make return loads with carts, whilst threshing wheat.

When this corn field is broken up for wheat, it should be treated to one hundred and seventy-five pounds of Peruvian guano, or one hundred pounds with a like quantity of *leached* ashes mixed, which the experience of some farmers who have tried it, approves, as being equal to the application of the same amount of pure guano. It appears very reasonable, as potash is a most essential ingredient in soil, and is thus furnished in company with one of the strongest fertilizers. This preparation of the corn land will insure from 15 to 20 bushels of wheat, and give you afterwards (for clover seed should be sown through this field) a fine field of clover for fallow.

This treated again, when it comes in wheat, to 100 pounds of Peruvian guano, will give a like or

greater yield of wheat. I would here remark, that the clover land which is earliest fallowed in summer, should be seeded in peas as a substitute for the crab grass and weeds which usually are more difficult to plough in, and are not so well calculated to improve the land. On this part of the clover field, therefore, we have the fallow of two green crops in one season, with no more ploughing than otherwise necessary. These different means of improvement, if judiciously applied, will fully double the first corn crop, treble or quadruple the wheat crop, whilst in the next round, with diminished applications of guano, each field may be expected to reach its highest average productive capacity in the absence of any direct application of lime.

This same system, for the most part, should be pursued with the class of poor lands accessible for the use of marl or lime, taking care, however, to apply the usual measure of these to the ploughed surface going in corn, whilst other manures raised on the farm should be applied as top-dressing, early in the spring, to the clover field.

Of course these lands will be more rapidly and permanently improved, and require less expenditure in guano, on account of the large addition of calcareous manures, and because, too, the guano does not appear to act on them so efficiently. It is proper here to remark, that especially on the limed or marled land, unless it be eocene marl, ground plaster should be sown early in the first of the spring on the wheat, which will greatly benefit the young clover.

I regret that I have found it necessary, in order to present my views on the subject of improving and enriching poor land, to extend this essay to such a length. I will simply add, that as far as circumstances would allow, I have endeavored but imperfectly, to practice the views here presented, and that so far as I have succeeded in doing so, the improvement of my land has certainly equalled any most sanguine expectations.

For the Southern Planter.

A REVIEWER REVIEWED—AN ODDITY LET
GOOSE.

Mr. Editor.—In the Planter for March, a communication appeared from Dr. F. Watkins, of Ben Lomond, purporting to be a review of the address delivered by Mr. Edmunds before the Agricultural Society of Virginia.

That essay is a remarkable production, and the theories it attempts to establish, demand some notice; lest such practical farmers as have but little knowledge of the sciences pertaining to rural economy, might be induced to adopt the views they inculcate; and, in attempting to reduce them to practice, find themselves involved in considerable loss and much useless labor. The character of the remarks with which the reviewer prefaces his criticisms, would lead us to suppose that he had detected some egregious blunders in the address; and that he was about to expose the erroneous theories which Mr. E. had sought to establish; together with the false deductions which had been drawn from them. And the flourish of trumpets with which he announces his intention to "run a tilt against him" in the "vast field of speculation," would indicate that Mr. E. might be left hors de combat, "in the wild chaos of immature

and inorganic speculation into which he had plunged." What is precisely meant by the latter clause of the preceding sentence, we do not presume to say, but will leave it to those whose mental optics may be more acute, to decide. It would seem, however, that the author divides speculations into two kinds, organic and inorganic speculations. At least such is the necessary inference, as the language employed implies a division. Our highest authorities in lexicography define speculation to be a mental view—a notion—a thought, &c. We can easily conceive how the mind may take a mental view of organic or inorganic substances or things; and our physical organs of vision are often delighted with a physical view of them; but we are at a loss to conceive how either could form any conception of an "inorganic speculation." But lest we might misconstrue the reviewer's meaning upon a subject so abstruse, we would invite the reader's special attention to the whole paragraph from which the citation is made.

After indulging in some further preliminary remarks, constituting a pretty considerable compound of compliments and animadversions, into which the two ingredients seem to enter in proportions so nearly equal, that it is difficult to determine which has the preponderance, he proceeds to dissect the address; and alleges that, "the very fact of its very careful preparation, is to my [his] mind, a sufficient apology for venturing to expose the faults of some of his practical deductions from his unsustained and faulty theorising."

In pointing out the sources from which growing vegetables derive their carbon, Mr. E. used the following language: "This leading substance of all plants is derived from carbonic acid in much the largest proportion from the atmosphere which surrounds them, and by assimilation through their leaves. The roots of the plants may furnish a questionable, at any rate, a small proportion." If these conclusions be facts, his reviewer boldly affirms that they "militate against all the previously established laws of chemistry." Now, we would merely suggest, that if these views are in conflict with all the established laws of chemistry, it would have been easy for his reviewer to have designated some one of them against which they militated. But he has not only failed to do this, but has likewise made a signal failure in his attempt to adduce one single isolated fact in support of his allegation. It is true, he says, that, "while I agree with him cheerfully that the air is the great source, I cannot admit that it is the *only source*, from whence plants derive their carbon." Neither has Mr. E. so affirmed, though the reader will observe that he is made to occupy that position in the above quotation. But, on the contrary, he says expressly, and that too in the very passage cited by his reviewer, that the "roots of the plants may furnish a questionable, at any rate, a small proportion." It is evidently clear, that this passage in its contextual meaning, has reference to the definitive proportions of carbon which growing vegetables receive from the soil and the atmosphere; and the term "questionable" has reference only to the definitive proportions of this element derived from the respective sources of supply; and not to the fact, (as interpreted by his reviewer,) whether any part of this substance is supplied from the soil. Prof. Norton, as quoted in the review, supposes, (it is a mere supposition, however,) that as much as a third of this element is furnished by the soil, and the remaining two-thirds are obtained from the at-

mosphere. While Liebig and Boussingault, generally regarded as higher authorities, estimate the proportion derived from the soil to be very small; much less than a third; at any rate the respective amounts of this element, which are derived from the different sources of supply, are questionable, the definitive proportions having never been accurately determined. Nor does Mr. E. attempt to settle this point of controversy among agricultural chemists; but contents himself with giving us a very correct and concise summary of all the facts which the recent progress of science has brought to light, in its relations with this department of agriculture.

Having finished his critique upon carbon, he proceeds to expose the errors of a plan, proposed in the address, for improving a compost heap. The plan suggests the interposition of plaster, marl and ashes, between the different layers of the materials of a farm-pen, as an auxiliary means of promoting the fixation of ammonia, and of improving, to some extent, the quality of the manure. The review admits that the plaster and marl would be conducive to this end, and so would leached ashes, "but if the ashes be unleached or caustic, the carbonic acid of the carbonate of ammonia (in which form the ammonia is combined) having an elective affinity for the potash, will unite with it, forming the carbonate of potash, and instead of fixing, will liberate the ammonia, and injure rather than improve the quality of the manure."

We beg leave to dissent from this explanation of the abstruse laws of chemistry, upon which such a result is made to depend; until it has been shown by a more conclusive method of reasoning, that such would be the effect of an alkaline carbonate under the circumstances indicated. For we attribute to the presence of potash, an agency directly the reverse of that assigned to it, and are supported in this view by the authority of Johnston, Mulder and Boussingault. These writers affirm as the results of their experiments, that decomposing manure-heaps, containing ashes, (caustic ashes,) not only have the power of retaining *all* the ammonia and nitric acid, resulting from the decomposition of the materials placed in compost, but also of drawing upon the atmosphere for an additional supply of its free nitrogen. Composts thus formed are found, after the lapse of a few months, to contain more nitrogen than was contained in all the substances composing the heap at the time of its construction.

The mere heaping together, however, of the ordinary materials of a farm-pen, is not sufficient to retain the nitrogen evolved from decaying organic matter, much less to attract an additional quantity of this element from the atmosphere. To accomplish this object, it is requisite that a calcareous or alkaline carbonate should be interposed between the layers of the decomposing materials. A proper admixture of caustic ashes and ordinary farm-yard manure constitutes the essential conditions of an artificial nitre-bed. The ashes furnish the necessary alkaline carbonate, and from the decomposing compost oxygen is evolved, which, in its nascent state, is capable of uniting with the azote of the air to form nitric acid; and this combination continues to be formed at the expense of the free nitrogen of the atmosphere, as long as potash is present to combine with the nitric acid thus produced to form the nitrate of potash. Artificial nitre-beds, constructed upon this principle, are common in France and some other countries of continental

Europe, and the saltpetre thus produced is sufficient in amount (when separated from the other salts usually found with it, such as the nitrate of soda, nitrate of ammonia, &c.) to make it a profitable article of commerce.

Having concluded his strictures on the philosophy of composts, the reviewer now approaches the great and radical error of the address—"the astounding theory!—the oddity let loose!" What constitutes this great and fundamental difference between Mr. E. and his reviewer? We imagine that the reader will experience a risible sensation, which it may require some effort to suppress, when he is informed that it consists in the assumption on the part of the address, "that a ton of wheat straw must be regarded as containing a larger amount of enriching elements before being fed to cattle than after the process of digestion." To this assumption the reviewer responds in the following language: "Here it strikes me, I say it respectfully, is an oddity let loose—a theory run mad!" Were it merely a question of convenience, or of economizing labor, *he* says that they might agree; "but when it involves the point of superior fertilizing power, we are as opposite as the poles." We see, then, that there is a violent repulsion between the address and the review, so violent that they are repelled unto the opposite extremes of the earth, the one being in the arctic circle, the other is repelled into the antarctic circle. As heretofore, we are again constrained to take our position by the side of Mr. E., with the whole breadth of our planet interposed between us and his reviewer. Having indulged in these emphatic expressions of surprise and astonishment, excited by the assumption, that a ton of wheat straw possesses more fertilizing power before being fed to cattle than after the process of digestion, the reviewer proceeds to demonstrate its absurdity. *He* bases his demonstrations upon data furnished by the analyses of Boussingault, Johnston and Von-Thaer; and proves, by a series of elaborate calculations, that the excretions of a cow fed upon wheat straw, contain nearly seven times as much nitrogen as an equal quantity of straw not fed away. In other words, he shows by figures, (which cannot err,) that a ton of wheat straw in the undigested state, contains only 6 pounds of nitrogen, while the solid and liquid excrements of a cow, collected during the consumption of a ton of the same substance, contain no less than 47 pounds of this fertilizing element—being a gain of 41 pounds in the dejections, against 6 pounds in the undigested straw. "Here, then," says the reviewer, "are 41 pounds of nitrogen, the chief fertilizing ingredient of manure, lost to the farmer by carrying out the straw undigested."

If there were no error in the calculations by which *he* arrived at this singular result, the discovery would be of vast importance to agriculture, and would multiply the resources of all the tillers of the earth in a seven-fold degree. For it is the only method yet discovered by which nitrogen, (the most important element in the composition of the food of man and animals, as well as the chief fertilizing agent of putrescent manures,) can be created in any amount—no other having ever succeeded in producing the minutest quantity. But by this process, that is, by feeding cows upon wheat straw, it is not only produced in considerable quantities, but with great rapidity. Should it be objected, that no animal is capable of creating nitrogen by the reviewer's method, then we ask from

what source the 41 pounds were derived by the animal, which had taken only 6 pounds into its system in the food consumed? It could not have been derived from the food, because that contained less than one-sixth of the amount found in the dejections. If growing vegetables possessed this power in an equal degree to that of the cattle, then there would be no longer any necessity for the numerous appliances which have been brought into requisition to collect and preserve this indispensable element; but they might be dispensed with without any detriment to the interests of agriculture. The reviewer does not seem to be fully apprised of the importance of this discovery, nor of the superior advantages which his cattle possess, and by which their intrinsic value is greatly enhanced. For they must be essentially different in their physical organization from the ordinary kinds, and are a thousand times more valuable than the most improved breeds of the British Isles, or those of any other country known to us—there may be such in the unexplored regions of the antarctic circle. All other kinds, however, with which we are acquainted, are consumers, instead of being producers of nitrogen—while these are endowed with some peculiar and extraordinary power of digestion, by which their physical organism is enabled to create and return to the earth in their dejections, nearly seven pounds of this important element for every pound of it which is introduced into their systems in the food consumed. A small stock of such cattle as these upon each farm in our country, with an adequate supply of wheat straw, would, in a very few years, make all the barren old fields of America richer in nitrogenized substances than the fertile valley of the Nile. But, unfortunately for this theory, the researches of physiologists have abundantly proved, by well conducted and satisfactory experiments, that the animal body is absolutely incapable of creating an elementary substance, such as carbon or nitrogen; and finally, that no nitrogen is absorbed from the atmosphere in the vital process. Whence, then, is the excess of this element derived by cattle fed upon wheat straw? We have seen that it could not have been absorbed from the air, neither could it be created by the process of digestion in direct conflict with the natural laws of nutrition. How, then, is this seemingly inexplicable correctness of the conclusions, to which the reviewer has arrived by his elaborate calculations. For a theory that involves the singular absurdity, of ascribing to the excretions of an animal, more than six times as much of the chief element of nutrition as was contained in the food to which it was indebted for its subsistence, is not only opposed to the dictates of reason, but is subversive of the laws of nature. May we not respectfully suggest, that a theory which stultifies itself contemns the universal experience of mankind, and makes such a foul infraction of the laws of nutrition, has somewhat the appearance of an "oddy let loose—a theory run mad," or rather a mad theory, in the sense in which the ancients were accustomed to define anger.

If the reviewer's calculations were correct, and we question not their accuracy, his premises must have been wrong. The latter, no doubt, was the source of the fallacy by which he was entangled in this singular paradox. If he will review *his review*, he may probably find that the data upon

which he based his calculations are altogether irrelevant to the question at issue. In short, we suspect that the cow whose solid excrements furnished two and a half per cent. of nitrogen by the analysis of Boussingault, instead of being fed upon wheat straw alone (a substance containing but three-tenths of one per cent. of this element) was supplied with clover and oil-cake ad libitum, substances very rich in azatized principles—the latter containing some 5 or 6 per cent. of nitrogen. Of course the dejections of any two animals of the same species, supplied with food possessing such different qualities, would, upon analysis, present a very marked difference in their composition. And it is well known, that the animals themselves, after the lapse of a few weeks, would present a difference in their external appearance no less striking. The one furnished with a sufficiency of food, rich in azatized and carbonaceous compounds, would speedily improve its condition. The muscles and all the organic tissues would undergo a rapid development, and a large accumulation of fat would be deposited in the cellular tissue. The other being fed upon wheat straw, a substance containing less than one-half of one per cent. of organized nitrogen, would not derive sufficient nutriment from its food to maintain its condition—the muscles and cellular tissue would shrink away, and the blood and fat, and all the parts of the body capable of entering into the state of motion, would be consumed in furnishing auxiliary support to the vital process; and if no better nourishment than wheat straw was supplied, the animal would perish from starvation, after a time more or less prolonged.

It is well known that a certain amount of organized nitrogen in the food of animals, is indispensable to the maintenance of health and the continuance of life. The small quantity of this element found in wheat straw is insufficient for these purposes, and animals confined to this kind of food alone, would inevitably perish in a few months—the time being more or less protracted according to the condition of the animals when placed upon it, and other collateral circumstances. The amount of nitrogen which may be contained in any given quantity of wheat straw, is consumed by the process of digestion—or in other words, it is assimilated; that is, it is converted into an integral part of the animal body. And the small quantity of this element contained in straw is insufficient to repair the daily waste occurring in the organized tissues; much less to impart two and a half per cent. to the excretions. And yet we are informed that the process of digestion adds seven hundred per cent. to the fermenting power of wheat straw. And the advocate of this theory also informs us that this impression is very prevalent, so prevalent that he "hopes Mr. E., distinguished for good management, yields, in his practice at least, to the prevailing impression." If such an impression does prevail to the extent supposed, it indicates a lamentable and wide-spread ignorance in relation to one of the most interesting processes of animated nature. And any experiments having a tendency to dispel this delusion, might be acceptable to the reviewer and all those who concur with him in promulgating an opinion that comes in direct conflict with the established laws of nutrition. With this view, we will present them with the leading results of an experiment reported in the *Journal of the Royal Agricultural Society of England*, and we will endeavor to condense our remarks as much as may be compatible with a full apprehension of

the different analyses. The experiment was instituted mainly for the purpose of ascertaining the quantity of mineral substances which become fixed or converted into an integral part of the animal frame in a given time. The amount of organized nitrogen assimilated during the same interval, was also ascertained and reported. The subject of the experiment was a calf 6 months old, in good condition and in full growth, such being the circumstances in which the process of assimilation is regarded to be the most rapid and complete. During the two days the calf was made the subject of experiment, it ate 19 pounds of hay, having been supplied with this fodder *ad libitum* for several days previously. In the course of the first day the calf voided 21 pounds of solid excrement, discarding fractions, and the second day 20 pounds, making 41 pounds in the two days; which being dried, was reduced to 7 pounds. During the two days 5 pounds of brine were excreted, the animal having drunk, in the same interval, 45 pints of water. Analysis ascertained in the food consumed, discarding fractions, 69 half drachms of nitrogen, and in the solid and liquid excrements together, 54 half drachms. As the hay consumed contained 69 half drachms of nitrogen, and the excretions 54 half drachms of this element, it is clear that the difference between them (16 half drachms) is the amount of organized nitrogen assimilated, or converted into an integral part of the animal organism during the period of 48 hours. Analysis likewise discovered 368 half drachms of mineral matter in the hay consumed, and 252 half drachms in the dejections. The difference between them (76 half drachms) is the amount of mineral substances fixed in the body of the calf in the course of two days.

From this investigation into the nutrition of a calf, it is apparent that a considerable proportion of the organic and inorganic elements of the food is assimilated, and serves, for a time, as an integral part of the mysterious structure. If the animal organism was not endowed with the power of assimilating the elements of nutrition, presented in the various articles of food, no animal would be capable of prolonging its existence beyond a limited period of a very few days. In fact, this is the primary object in supplying them with food, in order that they may convert such parts of it as may be adapted to the purposes of nutrition, into an integral part of their organization, and thus make it contribute to their preservation.

A regular supply of certain substances, (commonly called animal food,) and a constant supply of oxygen in the form of atmospheric air, are the primary conditions essential to the maintenance of animal life. All the substances contained in animal food are divided by physiologists into two great classes—the nitrogenized and the non-nitrogenized. The nitrogenized substances are the *aliments proper*, and these serve for the nutrition and reproduction of the body. The non-nitrogenized substances serve a very different purpose in the animal economy—that is, they minister to the support of respiration, and they have nothing to do with nutrition, any further than the process of digestion converts them into the form best adapted to the support of respiration and the evolution of animal heat.

The nitrogenized substances are vegetable fibre, vegetable albumen, vegetable caseine, and animal flesh. All these nitrogenized products are *identical* in their composition, and when introduced

into the animal system, are capable of being converted into blood, and the blood thus formed is capable of being converted into muscular fibre, into cellular tissue, and into every part of the body, which is the seat of the vital principle.

The non-nitrogenized substances are starch, gum, sugar, butter, fat, oil, beer, wine, and the whole catalogue of alcoholic liquors. All these substances are carbonaceous—they are destitute of nitrogen, and consequently possess no power of nutrition. They are designed to subserve a different, though not less important purpose in the animal economy. The carbon which they contain, when introduced into the system in the form of food or drink, enters into combination with the oxygen absorbed into the blood from the atmosphere by the respiratory organs, and fulfils the two-fold purpose of supporting respiration and maintaining animal heat. And here, we can but admire the display of creative wisdom by which results so different and important are accomplished, at one and the same time, by an agent so simple.

At every expiration, and during every moment of life, a certain amount of carbon is separated from the animal body, and having entered into combination with oxygen, is exhaled into the atmosphere in the form of carbonic acid. According to the experiments of Boussingault, a milch cow exhales 70½ ounces of carbon in twenty-four hours. If this element is not supplied in the food the process of respiration cannot be sustained, and the development of animal heat will be arrested. As it frequently happens, that animals are unavoidably deprived of food for a time more or less prolonged, nature has made a temporary provision for the occurrence of such casualties. This provision consists in the fat deposited in the cellular tissue. The carbon of the fat (fat is a compound of carbon and hydrogen) at every inspiration, combines with the oxygen absorbed into the circulation, and the oxydized product, in the form of carbonic acid, is expelled from the system during every expiration. The supply of carbon from this source would soon be exhausted, and then the muscles or fleshy part of the animal would begin to yield up that portion of this element which forms a component part of their structure, in order to furnish support to this vital process, which cannot be suspended, even for a few minutes, without fatal consequences. But as before, the supply of carbon derived from this source is soon consumed, and if food be any longer withheld, the other organic tissues, whose integrity is essential to the maintenance of life, begin to yield up their portion of this element, and this process goes on until the particles of the brain begin to be oxydized, and life is extinguished.

Bodily exercise increases the consumption of carbon, and consequently the demand for food. Every movement of the body, and every emotion of the mind, accelerates the waste of the organic tissues, and consequently mental as well as physical exercise, creates an increased demand for those elements adapted to the reproduction of the animal organism.

All experience teaches that a regular supply of food is essential to the preservation of life. That an animal has no power to create any one element of nutrition or respiration requisite to preserve its organization, is a fact no less true; and yet it is far less generally recognised. The vegetable organism only, has the power of creating nutritious products; and from vegetables only, every such product is originally derived. In this regard, they

occupy an intermediate position between the mineral and animal kingdoms. They form the connecting link between them. To sever this link, would produce an universal famine. Vegetables are capable of deriving their nourishment from inorganic nature—that is, from the mineral elements in their natural state. In the process of their growth these elements enter into the living structure of plants, and are transformed by the vital power of the vegetable organism into organized products. Some of these organized products are adapted to the nourishment of animals. The nitrogenized product, which is the first and only substance capable of affording nutriment to animals, is the last product of the creative power of vegetable life. This product is found in the greatest abundance in the seeds of the cerealia, in the juices of the culinary vegetables, and more or less in every species of plants. Having furnished this product, which is the last effort of their creative energy, they decay and give place to a new generation of vegetables. Thus one generation is made to succeed another in a never-ending series, but not before they have fulfilled the great purpose for which they are designed in the economy of nature.

Pittsylvania, Va.

E. C. W.

For the Southern Planter.

THE ESTATE OF DR. JOHN B. HARVIE.

Report on Fighting Creek Farm—published by order of the Powhatan Agricultural Club.

Your committee, appointed to report on the farm of Dr. John B. Harvie, (called Fighting Creek,) beg leave in discharge of that duty to present the following:

The Fighting Creek farm, containing about 2000 acres of land, came into the possession of its present proprietor about ten years ago. The greater portion of it was originally land of the very best quality in its neighborhood. The soil consisting of a fine chocolate loam, was sufficiently undulating to carry off the surplus water, and not too steep to admit of easy and convenient cultivation, presenting a fine southern and eastern exposure.

This fine estate under the system of cultivation which for the last half century had so marred the face of this portion of Virginia, came in its share of abuse. A large portion of it had been worn out, and turned out to the guardian care of the old field pines. The beautiful slopes presenting themselves to the streams, exhibited innumerable gullies, and could be cultivated only in patches. The flat lands, of which there is a large portion on this estate, were in a very unproductive condition, in consequence of the very imperfect manner in which they had been attempted to be drained.

Under these circumstances, it passed into the hands of its present proprietor at a mere nominal price, compared with its present value. It now presents a striking contrast with its former appearance, and illustrates the practicability of making valuable many of our worn out and gullied farms.

This improvement has been accomplished under the five field rotation. Deep tillage, a liberal use of clover and plaster, together with an unremitting attention to every source from which manure could be made or collected, the farm yard, the hog-stye, the sheep-fold, the hen-roost: nothing in the shape

of manure, or that could be converted into manure has escaped his vigilance. The water from the hill sides, which used to find its way to the streams through deforming gullies, has been taught to follow the meanderings of the graded ditch, and discharge itself harmlessly into the streams which are contained within spacious ditches. The flat land in which water was used to stagnate and sour, repaying but scantily the labor of its former proprietors, have, by a system of under draining, been converted into arable lands of surpassing fertility, producing corn, wheat and tobacco in highly remunerating crops.

A more particular detail of the rotation under the five field system before alluded to, may not be uninteresting to the Club. Beginning first with the corn and tobacco crops: the tobacco lot is always located in the corn shift and made every year on a fresh site, thereby bringing by means of manure a new portion of land into a high state of productiveness—and by consequence, in a succession of years, manuring the whole field to the point of profitable productiveness in tobacco. By this means, the whole surface under hoe crop is thrown together in one field and under one enclosure; thereby avoiding much of the annoyance of minding stock, and the consequent destruction of crop from their depredations. Wheat and oats follow the corn and tobacco crops. The land being prepared in the most thorough manner, every gall and abraded place having a careful top dressing of weeds, briars or other rubbish of the fields, and in the absence of these, of wheat straw. This is regarded as an operation of vital importance. It protects the wheat from being thrown out by the frosts of winter, and the young clover from the deleterious effects of a summer drought, thereby insuring a stand of that improve which is an object of paramount importance.

After the wheat is harvested these gullied spots are revisited again in fall, or early winter, and replenished with another covering similar to the first, and the summer following without the application of one particle of manure they exhibit the most luxuriant spots of clover in the field. This brings us to the third year when the clover is deeply and thoroughly turned in, preparatory for wheat. This fallow is then carefully pulverized by means of a heavy drag, applied until the land is in a sufficient state of comminution to receive the grain, it is then streaked off with a coulter, seeded, and a seven tooth harrow drawn by two horses passed over it, followed by the drag; the grips and furrows were opened and the abraded places carefully covered as before. The next year when the wheat is cut, it is cleaned by hogs, other stock being kept off, in order to allow the field to have the full benefit of the cover which the fall weeds and grasses will afford it. The fifth and last year of the series, it is closely grazed by all the stock of the farm, and they are penned on that portion of the field which will constitute the tobacco lot of the following year, which is the beginning of the new series.

This system is a lenient one, and under its operation very decided improvement has been effected wherever it has been adopted and pursued systematically, anterior to the use of guano and without its co-operation. Since the introduction of this great fertilizer, a new impetus has been given to agricultural production and improvement, and we may confidently hope for results commensurate with our wants and wishes.

In our ride over this farm we saw much to admire and approve, and but little or nothing to condemn. The buildings are well adapted to the ends for which they were designed, and in a perfect state of preservation. From the mansion to the pigeon house, every thing seemed to be accommodated suitably to its wants. The fencing enclosures of all kinds were strong and substantial. The corn crop, which was being housed, seemed to be abundant; the clover fields well set; the orchard exhibited a thrifty and healthy appearance, and comprised a choice variety of fruit. The wheat field seemed to have been prepared with great neatness and skill, and the portion of the crop that was up, looked healthy and vigorous.

The tobacco crop, of which we saw but one sample, did not compare favorably with the Doctor's former crops, which is attributable to his wishing to improve a piece of poor land at the sacrifice of his tobacco crop. We saw a remarkably fine pen of fat hogs, about seventy in number, which spoke well for the Doctor's system of hog raising; the details of which, as it is an important subject in these times of high prices for pork, we hope he will furnish to the Club. The servants, the horses, the cattle, the sheep, all showed a master's care. This farm is worked by twenty hands, and its average of sale crops for the past three or four years has been about two hundred dollars to the hand. The surface under cultivation about 750 acres. And while these results have been obtained, a profuse and generous supply of all the substantial of good living have been consumed on the farm.

We cannot close this report without saying to our friend (the Doctor) "Well done!" and recommending his system of farming to the favorable consideration of our Club.

Signed, HILARY HARRIS,
WILLIAM LIGON.

For the Southern Planter.

HOW IS THE AGRICULTURAL SOCIETY OF VIRGINIA TO BE PLACED UPON A PERMANENT AND SELF-SUSTAINING BASIS?

It is presumed, Mr. Editor, that the zealous-minded men who started this enterprise, and who have labored long and hard in bringing it to its present hopeful condition, have never dreamed for a moment of establishing any thing short of a permanent Society—one that shall not only *promise* well, but by well directed efforts, constantly put forth through an indefinite series of years, *answer fully* the hopes of its founders, as well as the reasonable expectations of the people of the State. It is true, the great and good work has progressed too far to be abandoned, but has it gone far enough to be said to possess all the elements of vitality, with that inherent vigor and energy which are at once the indispensable requisites and pledges of a long and prosperous career? It has progressed far enough, indeed, to demonstrate that it can finally be consummated; but has it progressed far enough (if we may borrow the figure) to fling its canvas to the breeze, and start on its merciful voyage of prosperity and plenty and happiness? Are all the timbers of the good ship tight and close—her officers and crew properly provided for—all the tackle and other furniture on board necessary for an indefinite cruise on a boundless sea?

These are deeply important questions, and need

well considered affirmative replies, before the inquiry at the head of our article can cease to be the prime question with all who wish success to the undertaking. Now, as a friend and member of the Society, we venture to suggest one defect in its organization, which, if not remedied, and remedied speedily, will inevitably, in our humble judgment, bring about the failure of the whole scheme. We do not allude to any thing that has *been done*, but to what has been left *undone*. So far as we are acquainted with the history of its proceedings, they commend themselves to our judgment. "So far so good." But there is in its constitution a *lack* that *must* be supplied, as we humbly conceive, in order to secure permanently that prompt, energetic and faithful administration of its affairs, which is the only guaranty in any human association, constrained or voluntary, against premature decay and dissolution. We allude to the absence of any provision for a just compensation to the officers of the Society. The Secretary is the only officer, we believe, who receives any thing for his services. This is *just* and *reasonable*. But why should not the others be compensated for their time, and talents, and labor, also? That the Secretary has the most arduous duties to perform, is a very good reason why he should be amply remunerated; but surely the fact furnishes no argument to prove that those who perform a less amount of duty, should not receive a corresponding amount of pay.

It will not do to say, that the officers would not consent to receive such compensation, if it were provided—the honor of pioneering and aiding in so glorious an enterprise is a sufficient reward for the high and patriotic mind. The connection between labor and its appropriate wages is too close to be severed by a momentary enthusiasm, or the laudable ambition of helping forward a noble work. We doubt not that the worthy gentlemen—the present incumbents—have partaken as largely as any of us in the general enthusiasm, and are as entirely under the influence of those generous impulses, which usually accompany lofty purposes and great occasions. But they must pass away—the enthusiasm of a first and successful effort must come to an *end*, even if it be not followed by a corresponding and equal *reaction* of public feeling—while the noblest and purest ambition will tire in the continued performance of gratuitous, and it may be, thankless services.

Nor will it do to say, that the Society does not possess the funds adequate to carry on its necessary operations, and at the same time provide salaries for some 15 officers or more. This may be so, but then is it not greatly to be feared that the Society has not the funds requisite to place itself in an enduring and self-supporting position? It may possibly require some \$40,000 or \$50,000 to be added to its present capital, to enable it to compass this object. Then we can only say, that the Society still wants that amount of funds to complete its proper organization. And *we* are ready, so far as we are concerned, to contribute our mite toward making up the sum.

But it is no part of our purpose, at present, to attempt to furnish any project for raising the necessary funds, or for determining the amount or distribution of the compensation. We willingly submit these questions to wiser and more experienced heads. Our object will be fully accomplished if we succeed in calling the attention of the members generally, and of the Executive Committee particularly, to this subject, which, in our judg-

ment, more intimately concerns the *perpetuity* and ultimate well being of the Society, than any other connected with it. It may be that, for the present, the Society can only make provision for the payment of necessary expenses incurred by those officers who attend the meetings of the Executive Committee. Yet it should ever keep before it the necessity of providing, at some future time, for the just compensation of those who labor in its patriotic cause. *This* is the *sine qua non* condition, which is to insure the Society against an ephemeral and fitful existence, and guarantee the fulfillment of its great destiny, and cause generations to come to pronounce its founders emphatically the greatest benefactors of the *Old Dominion*.

A MEMBER OF THE SOCIETY.

FARMS IMPROVED BY KEEPING SHEEP.

Citizens of Wool growing districts, as parts of Washington and Fayette counties, are familiar with the rapid improvement of "Sheep farms," by sheep grazing alone. It is the belief of many whose opinions have been formed by observation and experience, that, by placing as large a flock of sheep on a poor farm as the land will sustain, and in five years, without any other means, it will be comparatively rich. Were this fact more generally known, it might change the husbandry of considerable portions of this State, the lands of which are better adapted to wool growing, than grain growing, to say nothing of remoteness from produce markets. The following quotations from the Transactions of the Norfolk Agricultural Society, which we find in the Wool Grower, are worthy of consideration:

"A man having a small farm, formerly kept forty sheep, four cows and one horse, and had food enough for them the year round. The price of wool falling, he sold his sheep, and for a number of years has kept other stock altogether. He now keeps but three cows and one horse the year round, and pastures two cows extra through the summer, and a very little hay—not half enough to keep another cow; he has the same amount of pasture and mowing land as when he kept the forty sheep in addition to his other stock, and yet his farm does not look near as well as then. He used to raise turnips among the corn for his sheep to eat in winter, and gave them besides, a few bushels of grain. The lambs, however, more than paid for the extra feed.

"Another farmer, for a great number of years, kept about sixty sheep, eight or nine cows, (or other stock equal,) one pair of oxen and one horse. After keeping the sheep for a number of years, he found he could then keep as large a stock on his farm with the sixty sheep, as he could keep without them before; showing that they had improved the farm to furnish their own support. To stock a farm entirely with sheep would not be so profitable as to keep a limited number—yet it would pay as well as other stock. The object is to keep enough to consume that part of the vegetation peculiarly fitted to sheep; and which other stock will not eat, adding, at the same time, enriching elements to the pastures and yards by their manure. It is the opinion of many farmers, that pastures for other stock may be improved by keeping a small flock of sheep upon them a portion of the time, and the opinion seems fairly supported both by reason and experiment."—*Pennsylvania Farm Journal*.

From Chambers' Journal.

STEAM AMONG THE FARMERS.

Those who visit Christmas cattle shows, simply in a gazing frame of mind, do justice neither to themselves nor to the show. There is something more to do than to admire fat pigs which cannot see out of their eyes, and fat sheep which look more silly even than lean sheep, and fat bullocks which measure an unlimited number of yards round the body. Unless a man roams also among the agricultural implements, he cannot rightly judge a matter which is well worthy of attention—the wonderful energy and activity of the farmers since the repeal of the corn-laws. It is no part of our business to dilate upon political combats, but it is unquestionably a part of every Englishman's business to know that the agriculturists are bravely "putting their shoulders to the wheel," and applying all modern improvements in furtherance of their labors. The gradual spread in the use of steam-power is not among the least remarkable of these appliances. A year or two ago, we happened to meet with a "Song of Steam" in an American newspaper; the name of the writer does not appear; but we feel inclined to reprint here three of the stanzas, partly because there is really a dash of sparkle and spirit about them, and partly because we must beg that farming operations should in future be included in some measure among the labors of steam.

"In the darksome depths of the fathomless mine
My tireless arm doth play,
Where the rocks ne'er saw the sun decline,
Or the dawn of the glorious day.
I bring earth's glittering jewels up
From the hidden cave below,
And I make the fountain's granite cup
With a crystal gush overflow.

"I blow the bellows, I forge the steel
In all the shops of trade;
I hammer the ore and turn the wheel
Where my arms of strength are made.
I manage the furnace, the mill, the mint;
I carry, I spin, I weave;
And all my usings I put into print
On every Saturday eve.

"I've no muscle to weary, no breast to decay,
No bones to be 'laid on the shelf;
And soon I intend you may all go and play
While I manage the world by myself.
But harness me down with your iron bands,
Be sure of your curb and rein;
For I scorn the strength of your puny hands,
As the tempest scorns a chain."

Without going so far as to expect that we may all "go and play," while steam manages the world by itself, we may undoubtedly expect that many hard and laborious kinds of field labor will, more and more every year, be ef-

fectured by steam, which has "no muscle to weary, no breast to decay." We have only to look at the groups of implements and machines proceeding from the well known firms of Ransome, Wedlake, Garrett, Crosskill, Hornsby, Dray, &c.; or to look through the lists and catalogues of those manufacturers; the evidence of the fact becomes then very apparent. Let us very briefly glance at the matter.

Here are the productions of Messrs. Clayton and Shuttleworth of Lincoln, among which, a three horse-power portable steam engine is conspicuous. This compact affair is shaped something like a locomotive; it weighs about a ton and a half, and its provender consists of three hundred weights of coal, and 270 gallons of water per day of ten hours. With this moving power, it will thresh out twenty quarters of corn per day; and when it has done its work in one barn or threshing-floor, a horse will easily draw it to another. Similar engines are made of four, five, six, seven, eight and nine horse-power, all presenting this analogy—that the number of horse-power produced is about equal to the number of hundred weights of coal consumed in a working day of ten hours—a convenient rule for estimating the efficiency of the power. The larger of these portable steam-engines require two horses to draw them from place to place; but in return for this, they will thresh out a larger quantity of corn per day, and become applicable also to grinding, sowing, pumping, and other operations necessary on a large farm. The seventy horse engine is large enough to be made available for a remarkable system which has sprung up in some districts—namely, the *letting out of steam-power*; a portable steam-engine travels about from farm to farm, doing the threshing and sowing, and grinding and pumping for each in succession—a system susceptible of wonderful expansion. Then there are fixed steam-engines for farm work, of four to ten horse-power each. Another ingenious apparatus is a portable threshing machine. This is not a steam-engine, but a capacious vehicle on four wheels, having threshing mechanism within, and pulleys and bands on the outside to enable it to be worked by a steam-engine, either portable or fixed. The facilities thus afforded are remarkable; for you may either take the steam-engine to thresh, or bring the corn to be threshed, according to the arrangements of the farm. The corn is bundled into the vehicle; the steam-power commences its activity, and revolving arms proceed to thresh out the grain with great rapidity. In one form of the machine, the whole of the process of threshing, straw-shaking, riddling, winnowing and bolting, are performed by steam-power, and

in their proper order. How there must be certain revolving arms, and certain revolving cylinders, and certain wriggling or vibrating troughs, will be evident to those who consider the nature of these operations. Then there are straw-shaking machines, and corn-grinding mills, and bone-crushing mills, all worked by steam-power, and all applicable to farm-labor.

Here are Messrs. Dray's portable steam-engines; and here Messrs. Hornsby's; and here Messrs. Garrett's, and Messrs. Barret's, and Messrs. Ransome's; and so on. The relative merits of each and the trade competition between them, we have nothing to do with here. The great point is to know that there are a dozen firms or more manufacturing these powerful aids to agriculture. Some excel in the rapidity with which steam is got up; while others excel in the amount of horse-power produced by the consumption of a given weight of coal.

The Royal Agricultural Society was mainly instrumental in bringing forward the moveable steam-engines for farms, in the interval between 1841 and 1851. Mr. Pusey, a great authority on all these matters, has thus noticed the advantages of portable over fixed engines for farm-work: "If a farm be a large one, and especially if, as is often the case, it be of an irregular shape, there is great waste of labor for horses and men in bringing home all the corn in the straw to one point, and in again carrying out the dung to a distance of perhaps two or three miles; it is therefore common, and should be general, to have a second outlying yard; and this accommodation cannot be reconciled with a fixed engine. If the farm be of a moderate size, it will hardly—and if small, will certainly not—bear the expense of a fixed engine; there would be waste of capital in multiplying fixed engines to be worked but a few days in each year. It is now common, therefore, in some counties, for a man to invest a small capital in a movable engine, and earn his livelihood by letting it out to the farmer. But there is a further advantage in these movable engines, little, I believe, if at all known. Hitherto, corn has been threshed under cover in barns; but with these engines, and the improved threshing-machines, we can thresh the rick in the open air at once as it stands. It will be said: How can you thresh out of doors on a wet day? The answer is simple: neither can you move the rick into your barn on a wet day; and so rapid is the work of the new threshing-machines, that it takes no more time to thresh the corn than to move it."

But steam does something more than this for the farmer: it helps to make pipes for drain-

ing his land; and it helps to steam potatoes and other roots as fodder for animals; and it helps to plough his land—although it must be owned that ploughing-machines have not yet come much into use. In respect to steaming potatoes for pigs, it has been remarked that even diseased potatoes, if not too far gone, by being thus treated may be rendered wholesome, and may be stored up for months.

If the visitor to a cattle-show, who spends a reasonable time in the implement-galleries or yards, would choose to extend his thoughts a little from steam among the farmers, to machinery among the farmers, he would soon find how wonderfully the use of such machinery has spread within the last few years. In nearly every thing which can be called a machine in respect to farming, one of these three things is observable—that a man turns a handle, that a horse exerts its pulling force, or that a steam-engine puts forth its multimorphic power; and it is only those who have watched the progress of recent improvement, who can form even a guess of the wide extent to which the simple hand-instruments—such as the spade, the rake, the hoe, the dibble, the flail, &c.—have been superseded on large farms by skillfully constructed machines. The old ploughs, with wheels and gallows required four horses to draw them; but two horses can now do as much work with a plough of lighter and more scientific construction. The old harrows had their tines or teeth at a definite distance apart; but our farmers can now obtain expanding harrows, which can be adapted to the state of the land. The old rollers, in many cases, were simply tree-trunks rudely fashioned into cylindrical shape, having a frame-work loaded with rough materials to give them weight; but now we have iron rollers, which will last forever. The old farmers were wont to attempt, sometimes hopelessly, to break heavy clods by an alternate use of the roller and the harrow; but the farmers of the new school have now their powerful and efficient clod-crushers, whereby turnip-land can be prepared for corn with celerity and success. The old plough was expected to do more work than it could do well; but the scarifiers, and grubbers, and cultivators of the present day are analogous to a large party of ploughs, all working at once, whereby a large percentage of horse-power is saved. The old seed-lip and dibble deposited the seed very slowly; but the modern drill does this with astonishing quickness; and not only so, but it will even deposit manure and water with the seed in the hollows made for its reception. The old hoe was "slow," both figuratively and really; but the modern horse-hoe is a compound

of four, six, or eight hoes at once, each working more quickly than the original hand-implement. The old sickle was the only instrument used by our fathers and grandfathers for cutting corn; but the M'Cormicks, and Husseys, and Bells have shown us what can be done by reaping-machines. The old rake was the only implement for gathering stray hay and corn; but the modern horse-rake will do the same work ten or twenty times as rapidly. The old hay-fields exhibited simply the handicraft labor which supplied so many Daphnes and Colins to the pastoral poets; but the haymaking-machines now give a different aspect to the affair. The old carts and wagons in which the farmer conveyed his produce from the field to the barn, and from thence to market, were a terrible drag to the horses; but now, like clippers on another element, they weigh less, carry more, and move more quickly. The old flail beat about the corn in a rude way on the barn-floor; but the new threshing-machine enables either horses or steam to do the work more conveniently and more expeditiously. The old process of winnowing left the wind to blow away the chaff in a blind and capricious manner; but the modern winnowing-machines have such a discriminating power, that they can separate the grain into "good corn," "good tail," "tail," "whites," "screenings," and "chaff," thus enabling the farmer to carry to market, produce, the quality of which can be exactly determined. The sheep and lambs of old days had to munch away at whole turnips, as best they might; but the modern turnip-cutter, by presenting the root in nice mouthfuls, economises the muscular power of the animal, and gives him an increased value in the market. The old chaff was cut by hand, with a sort of chopping or guillotine action; but the chaff-cutters now made, perform the work with far greater celerity. The old farmers drained their land, if at all, by using hand-made ditches, and pipes laid in hand-made grooves and gutters; but the new farmers can reap the advantages of the ingenious tile-machines, and can lay down the pipes by the still more ingenious draining-plough.

Nay, not only do farmers now display all this ability, but they have actually become poetical, which the world in general is perhaps not aware of. That Messrs. Moses and Hyam, as Messrs. Warren and Day & Martin formerly did, throw around their business proceedings a halo of poetry, every body knows; but it has, until lately, been new to us that an agricultural implement-maker thinks it worth his while to lisp in numbers; and as it is not to be supposed that he would bring ploughs and poetry together, unless the farmers were pleased there

SOUTHERN PLANTER (1841)

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Missing pages: 173-180

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 309

have free access to the salt and clay from the first of April or May, until the commencement of the winter. Try it, Messrs. Readers of the Planter, and think you will find this prescription no *humbug*.

W. R. H.

Danville, May 30, 1854.

For the Southern Planter.

TO ERADICATE SASSAFRAS.

Mr. Editor,—I notice that in the Schedule of Premiums to be awarded at the coming State Agricultural Fair, \$30 are offered for the best mode of destroying Sassafras bushes. I feel persuaded that I have discovered the most effective mode, and as I am desirous that it should be resorted to generally, I now state, that from ten years' experience, I find that a handfull of salt thrown at the root of each bush, or if they stand very thick, a pretty heavy broadcast of salt, if applied during the month of May, and in a field that is to be pastured that season, will most effectually eradicate it. One of the fields on the farm I now occupy was greatly infested with them when I came in possession of it, and it is now so entirely clear of it, that it would be difficult to get enough for a cup of Tea.

Yours respectfully,

P. D. VENABLE.

Wheatland, April 5th, 1854.

The above was overlooked for May. We publish it now, thinking that June cannot be too late for those who choose to try the experiment.—Ed. So. PLANTER.

For the Southern Planter.

INSECTS IN WHEAT AND OATS IN 1769, 1732 AND 1755.

Mr. Editor,—In the Complete Farmer, published in London in 1769, I find the following, under the head Insect:

"Among others, a small kind of worm gets into the roots, chiefly of oats, and working upwards, destroy all the inside of the plant, which perishes soon after. M. Duhamel suspects it to have been an insect of this kind that destroyed vast quantities of wheat near Genesee, and of which M. de Chateauevieux sent him the following account: 'Our wheat,' says that illustrious husbandman, 'in the month of May, 1755, sustained a loss, which even that cultivated according to the new husbandry, did not escape. We found in it many little white worms, which afterwards became of a chestnut color. They post themselves between the blades, and eat the stems. They are usually found between the first joint and the roots. Every stalk attacked grew no more, but became yellow and withered. The same misfortune befel us in the year 1732.

"These insects appeared about the middle of May, and made such havoc that the crop was almost destroyed."

I was induced to look into the work alluded to, at the request of my friend, Mr. Wm. B. Harrison, in order to ascertain if anything like the joint worm could be found, as far back as its publication. The above is the result of my investigation.

We have no acquaintance with the joint worm, and hope never to have; and, knowing you, Mr. Editor, to be familiar with it, I have taken the liberty of sending you this, to dispose of as you please.

Yours very respectfully,

NATH'L M. OSBORNE.

Cabin Point, April 23d, 1854.

The insect referred to above is not the joint worm; but, from the very brief account given, would seem more nearly to resemble the Hessian fly, which we have no doubt it was. In that aspect, the communication of our friend, Dr. Osborne, is important as fixing the date of the first recorded appearance of that enemy.

For the Southern Planter.

WRITE FOR THE PLANTER.

Mr. Planter,—Cannot you induce your numerous readers to be more liberal in their communications to the pages of your valuable periodical, and thereby enlighten the fraternity in this age of progress, on some improved system of agriculture? I am frequently surprised that the farming community are so negligent in this respect, by withholding information that might be of paramount importance to their brother farmers, and aid in developing the growing interest and onward tendency of agriculture.

Two or more farmers in a neighborhood experiment with common or artificial manures; some succeed well, whilst others make a failure; and these experiments are probably not known beyond the circle of the neighborhood; whereas, they should be reported in the pages of the Planter that others may avoid the erroneous, and adopt the successful plan. It is this mutual interchange of experiments that the farmers are in courtesy, if not in duty, bound to afford each other, that our noble calling may advance with a stride hitherto unknown.

W. R. H.

P. S.—The great scarcity of plants is such, that we may safely predict another short tobacco crop.

W. R. H.

For the Southern Planter.

ON THE APPLICATION OF GUANO FOR CORN.

Mr. Editor,—I have been using this manure for several years, in various ways on the corn crop: viz. in the hill, drill and broadcast. I tried these several ways to ascertain the best mode of application, as well as to improve and benefit the land, and make the best crops. I laid off a piece of land, say three acres: on the first I put about 200 lbs. per acre; on the second about the same quantity; on the last broadcast about 150 lbs. per acre; all of it being poor, but originally good, of a soft gray nature. The first named experiment, the guano in hills and drills, grew off finely at first, and promised to be very superior—but usually there is a pinch upon corn about making time, and at that time it began to fade, and made but a very moderate yield; that in the drill about the same result; that sowed broadcast made a most excellent crop, and yielded about double. I would say to my bro-

ther farmers, never use guano any other way than broadcast, except for vegetables. The time of application, from experiment, is the first weeding of the corn. Sow two rows at a time, just ahead of the ploughs. When sown broadcast it improves the land more generally, and prepares it for small grain. I am now using from 200 to 300 lbs. to the acre. I prefer 300 lbs., because you will be enabled to get two crops from the same manuring. I would say more about the mode of culture, but deem it unnecessary. In conclusion, I would remark for the benefit of practical men, that if there is any merit in my suggestions, the plan is easy and can be adopted by the great body of planters.

EDWIN J. REDD.

Prince Edward, May 16, 1854.

For the Southern Planter.

SALTPETRE AS A MANURE.

Mr. Editor,—On reading in the last number of the "Journal of the Royal Agricultural Society" the experiments of the president on cubic saltpetre as a manure, I was struck with the unsatisfactory nature of a portion of them, and of the conclusions derived from them. In the "American Agriculturist" of May 16th, in an extract from an address before the Highland Agricultural Society, Dr. Anderson, though differing from Mr. Pusey in some respects, repeats one of his conclusions in still stronger terms: "that the effect of nitrate of soda is unequivocally due to the nitric acid and not to the soda." This conclusion seems to me to be forced, and leads me to make the following remarks, to be inserted if you think proper, or, what would be much more agreeable to me, to draw from an abler source some opinion or information with regard to the subject.

Very respectfully,

A SUBSCRIBER.

May 12th, 1854.

In the experiments made by Dr. Pusey on the source of the manuring value of saltpetre, his conclusion that its virtue is proportionate to the amount of nitrogen rather than to the quantity of soda, may be well founded. But these experiments, so far from proving that the virtue is ascribable entirely to the acid, seem to prove that its effect is enhanced by the presence of the alkali.

In the tables given by Mr. Pusey, 6 drachms of nitrate of soda produce a result superior to any quantity of nitric acid used: from 2 to 8 drachms. Now, in 6 drachms of the nitrate we have 3.82 drachms of the acid, and this quantity in combination with the soda surpassing in effect any quantity used of the acid uncombined.

Does this show, to use the words of Dr. Anderson, quoted in the "American Agriculturist" of May 10th, that the beneficial action is "most unequivocally due to the nitric acid, and not to the soda?" Does it not prove, on the contrary, that the presence of the soda produces an effect which the acid alone cannot produce? And is there any thing remarkable in this?

Putting out of view the tendency of the pure acid to form nitrates with other bodies not necessary to the plants and not taken up by them, is it strange that two substances, when combined, should exert an influence which neither of them is separately capable of exerting?

Mr. P. has not even given experiments to test

the power of soda. According to his statements, there is a point below which nitric acid itself is powerless, and a point at which that power is at its maximum.

Now in the nitrate the quantity of soda is equal to 2.18 drachms, but Mr. Pusey has made only one experiment with $1\frac{1}{2}$ drachms of soda. Why may not soda have its limit of manuring virtue, and why may not this quantity be below the limit?

A series of experiments would have been much more satisfactory—and when we see as we often do, the different effects produced by the same manure under apparently similar circumstances, it seems hasty to draw from so small range of experiments the positive conclusion that the manuring virtue of nitrates is not at all owing to the alkalis with which they are combined; especially, when in the very statements given, we find the acid and alkali when combined, possessing greater fertilizing properties than either when used alone.

GUANO DEPOSITS ON THE CHINCHA ISLANDS.

We cull from the London Chronicle, the following valuable abstract of the official report, made on a careful examination of the actual amount of guano remaining in the Chincha Islands. It has evidently been compiled after a careful scrutiny, and a minimum estimate is the result. It exceeds in reality double the quantity roughly obtained by Admiral Morsby, but is below that of private persons engaged in the trade.

PERUVIAN LEGATION, 4 Albemarle st., }
Piccadilly, February 7, 1854. }

A note has been received at the above Legation, from the Minister of Finance of the Republic, bearing date of the 24th of December, in which the undermentioned is communicated to the Charge d'Affairs:

The government nominated a deputation, composed of Mr. Chas. Faraguet, a French engineer, in the service of Peru, and many other engineers and professors of Chemistry, native as well as foreign, in order that they might undertake the measurement of the guano of the Chincha Islands.

This, therefore, has been effected by men best qualified for the purpose, with as much accuracy as could possibly be obtained, adopting the latest improvements in the scientific proceedings, and the following has been given in conformity:

	Tons.
That the island situated at the North contains	4,189,477
That the centre island contains	2,505,948
That the South island contains	5,630,675

Or a total of 12,376,100

The computation is for tons measurement, which, when reduced to tons weight—the standard used in the sale—will increase the quantity to 16,501,466 tons weight of saleable guano. Besides the Chincha Islands, it is well known that Peru possesses many other guano deposits, containing a very considerable quantity, the measurement of which has also been ordered by the government, and will be published in due course.

It will be seen that the estimate is about double that made by Admiral Morsby, of the British Navy, and heretofore published in the Farm Journal.

Penn. Farm Journal for April.

From the Germantown Telegraph.

DRIFTING SOILS—THEIR MANAGEMENT.

The management of this kind of soil in our State (New Jersey) is generally attended with considerable difficulty. Being so light and imponderable, they are drifted by the winds, and washed by the rains, consequently no sward can be "set" in them, so that they are perpetually growing thinner and weaker. As they are generally of a hilly character, the difficulty of conveying manure to them, together with their great barrenness, often occasions them to be neglected; but this need not be, if proper attention be paid to their cultivation. In the first place it will be necessary to pay some attention to working them, or the manner in which the ploughings and harrowings are performed. In no case, indeed, should these implements pass up and down the declivities, but around them. When the former course is pursued, water drains are opened, along which the water falling during copious storms or showers is conducted, deepening them, and affording excellent channels for the transportation of the finer and more valuable parts of the soil to the more fertile lands below.

In the second place, all the manure that is applied should be calculated to produce a constitutional alteration in the land—clay, marl and lime, for instance, with ashes and gypsum, should be liberally applied. The first crops should be such as will derive a large portion of their nourishment from the atmosphere—peas, beans, buck and Indian wheat, &c., and the roller should be frequently used to communicate solidity to the mass. After breaking up a drifting soil, I would sow on ashes to facilitate the decomposition of the soluble silicates, and plant beans the first year. I would then harrow the soil the next season, and sow buckwheat to be turned in as a green crop, and plough in as many crops during the season as the land would produce. Then roll solid in the fall, and the third spring put on a good strong compost with a rich basis of clay, and lay down to grass. This I would turn under the second year after, and again seed down to grass in August. After this I would top-dress with good compost, using the spike roller to facilitate the descent of the nutritive and stimulant particles of the application to the roots, and repeat the operation of top-dressing annually.

In this way a thick set and vigorous sward will be spread over the surface, and no farther difficulty will be experienced from the drifting or washing for years. If clover be sowed in such situations, with a small admixture of timothy, the application of gypsum, lime and house ashes, with a dozen or so pounds of saltpetre

per acre, will produce wonders. The crop will be green early in the spring, as such soils are always forward, and the yield, under this management, will be good, even in dry seasons. If such lands could receive from twenty-five to forty per cent. of clay at the commencement, according to their original proportion of sand, which often varies greatly, they would be at once redeemed.

O. S. R.

Burlington Co., N. J., Dec. 17, 1853.

DOMESTIC BREAD.

The Rhode Island Society for the promotion of industry, gave the first premium on domestic bread, to Mrs. Hiram Hill, of Providence. The following is Mrs. Hill's receipt for making the bread exhibited by her.

For two loaves of the ordinary size, take eight potatoes, pare them, slice very thin and boil quick until quite soft, then mash to a fine pulp, and add a little by little two quarts of water, stirring until a starch is formed, let this cool, and then add one-third of a cup of *new* yeast. This forms the "sponge," which should remain in a moderately warm place for 10 or 12 hours, or "over-night," until it becomes very light and frothy, even if a little sour it is of no consequence. When the "sponge" is ready, add flour, and work it in until you have formed a *stiff, firm* mass. *The longer and more firmly this is kneaded, the better the bread.*

Let the kneaded mass remain say from half to three quarters of an hour to rise, then divide into loaves, put into pans, where it should remain say fifteen minutes, care being taken that it does not rise too much and crack, then put the loaves into a quick oven and bake, say three-quarters of an hour. If the oven is not hot enough, the bread will rise and crack; if too hot, the surface will harden too rapidly and confine the loaf.—*Maine Farmer.*

EXPERIMENTS IN SUCKERING CORN.

Some theorists, not knowing what ridiculous thing to start next, having become pretty well exhausted of schemes, hit upon the suckers of corn, which they contend help along the crop very much, by the pollen from the said suckers falling on the tassels of the forming ears on the main stems. A writer in the *Cultivator*—Mr. George W. Coffin, of Armenia—observing these statements, tried an experiment, whether or not the suckers had anything to do with this procreative process, and the following is the result:

Space was left in the middle of an acre of potatoes, for 100 hills of corn—ten hills each way. This was planted from the middle of an ear, five grains to each hill, and of uniform depth. It came up evenly, and grew without molestation until about six or eight inches high, when small suckers began to spring up from about the base of the main stalks, which I proceeded to remove from alternate rows, not by "*stripping*," as that might lacerate the main stalk and injure its growth, but by *cutting* close down. As often as they attempted to grow, through the season, I removed them in this

way; and when the season of harvesting came, I had 50 hills of clean, upright growth, and 50 of a bushy straggling appearance, having the suckers all on as they grew.

The former furnished large, well filled, and mostly sound ears, weighing $47\frac{1}{2}$ lbs. The latter, more ears, but not as large or sound, weighing $47\frac{1}{2}$ lbs.

I regret that the stalks were not weighed, but very well remember concluding that the increase in good corn was more than balanced by the greater amount of stalks when left to grow natural, and the trouble of cutting the suckers.

HOW TO WINTER ONE HUNDRED SHEEP FROM TWO ACRES OF LAND.

We have been accused of inducing farmers to try visionary experiments. We hardly know what meaning those who use the word visionary would put to it in this connection, nor do we care. We have faith in the following project of producing fodder enough on two acres of land to winter one hundred sheep. But, says Mr. Doubtful, it must be made very rich. Of course it must. That won't hurt the land in the least. But how will you do it? In the first place make the land very rich. Manure it generously—plough it thoroughly—harrow it fine—roll it smooth—put on the marker and mark it into rows three feet apart, and sow Indian corn in drills. Hoe it twice, and after the second hoeing take your seed-sower and sow between each two rows of corn a row of flat turnip seed. After your corn has spindled, cut it up; let it wilt, then tie it into bundles and shock it up as you do corn-stalks which you have cut in the usual way, and let them stand until dry. It would not be strange if you had six tons of fodder per acre when they were sufficiently dry to put into the barn. This will be twelve tons, (from two acres). Now, to winter one hundred sheep you ought to have twenty tons of fodder. You have got twelve of them and want eight more, or four tons from each acre. The turnips ought to produce this amount. Let us see. Allowing a bushel of turnips to weigh sixty pounds, in order to have four tons on an acre you should raise $133\frac{1}{3}$ bushels. Will not your land produce this amount after taking away the Indian corn crop?

So you will have your twenty tons of food from two acres. But will the sheep eat the corn stalks? Yes, we have tried that. Just run the stalks through a straw-cutter and feed them out to the sheep, and they will eat them all up. We have tried it, and several others have tried it. Then run your turnips through a vegetable cutter, and they will eat them all up clean. The sheep should be young and hearty, and have good teeth. Who will try the experiment this year? We are bound to, for one.—*Maine Farmer.*

FINE CATTLE.

A lot of the finest cattle ever fed in the county of Rockingham, passed through Harrisonburg last week, on their way to the Northern markets. They were fed by Mr. Daniel Bierly, jr., within 4 miles of this place, and sold to Mr. John Bowman, jr., at \$5 per hundred, gross. Mr. Bowman paid for the lot—consisting of 11 steers—\$814, being \$74 per head. In addition to the splendid beeves purchased of Mr. Bierly, we understand Mr. Bowman

has 50 others, of his own feeding, which are equally as good as those purchased of Mr. Bierly.

Speaking of fine cattle, reminds us to say, that Mr. Bierly is one of the few men in the county who understand the true policy in the management of his farm. His is "a little farm well tilled"—and he always has, as a consequence, "a little barn well filled." We venture to assert that he makes more per acre, per annum, from his farm, than is made upon the same extent of soil by any other farmer in the county, notwithstanding his land is not better naturally, than the mass of lands in the county. If there is one who manages his farm better than Mr. B. does his, who makes more than he does from the same amount of capital invested in this interest, we should like to hear and to speak out.—*Rockingham Register.*

MERINO SHEEP.—Having increased my flock of Merino Sheep on my farm, in Orange county, to over 800 I am now prepared to sell a few choice yearling Bucks and Ewes. To all who have any acquaintance with Col. Henry S. Randall of New York, and the reputation of his flock, it is only necessary to say that the yearlings I propose selling are the product of ewes purchased of him when he sold out last year, and selected by him personally as the best in his flock. I have his letters, saying that he was offered the same price for his ewes by his neighbors, but that in starting the growth of fine wool in Virginia it was very important to have good sheep, and as he knew these were superior, he preferred selling them to go there. I shall sell no bucks except such as show marks of superiority. All who want to raise their flocks to a high standard at once will do well to apply early, as I have but a limited number for sale. Address by mail, or apply to

WM. G. CRENSHAW, or CRENSHAW & CO.,

June—1st North side of the Basin, Richmond, Va.

WOOL! WOOL!!—Receiving, as we do, large quantities of wool for sale, we are enabled to offer inducements to manufacturers and dealers to examine our stock, and in that way can generally obtain better prices than can be had for small parcels. We solicit consignments from the Wool Growers of Virginia, with the assurance that we can obtain the very highest prices for their fleeces, and that no effort on our part will be spared to afford them satisfaction.

CRENSHAW & CO.,

June—1st North side of the Basin, Richmond, Va.

PERUVIAN GUANO.—Having on hand, and engaged to arrive, a large supply of Guano, we solicit orders. All who buy of us may rely on getting it genuine, as we sell none except what comes direct from the Peruvian agents.

CRENSHAW & CO.,

June—1st North side of the Basin, Richmond, Va.

PAYMENTS TO THE SOUTHERN PLANTER

To the 4th of May, 1854.

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

Mrs. Lucy C. Binford to March 1855	\$1 00
P. A. Taylor to January 1855	
William P. Browne to January 1855	} 3 00
H. L. Taylor to January 1855	
Felix Pierce to January 1855	
Col. Thos. J. M. Cheatham to January 1855	1 00
Capt. C. Breckenridge to January 1855	1 00
Norborne Berkeley to January 1855	2 50
John H. Ranson to January 1853 (in full)	7 00
Messrs. Zimmerman & Co. to January 1855	1 00

Wm. A. Brown to June '54	\$1	A. M. Childress to Jan. '55	\$1	Rd. W. Barton to March '55	\$1
Wm. Segar to January '55	1	E. H. Osborne to "	1	Rev. W. W. Kennedy to Jan. '54	1
Alex. Campbell to Jan. '54	4	W. D. Mansfield to "	1	Wm. S. Jones to January '55	1
Col. D. B. Hancock to Jan. '55	1	R. P. Atkinson to "	1	John T. Clark to "	1
Dr. T. B. Anderson to Jan. '55	1	Richard Hawes to July '54	1	R. D. Warwick to "	1
G. A. Wingfield to Jan. '55	2	D. W. Haxall to July '56	3	Laney Jones to "	1
Col. T. F. Wingfield to Jan. '55	1	T. W. Meriwether to Jan. '55	1	R. N. Neblett to "	2
Gustavus Depp to Jan. '55	1	T. T. Treadway to Jan. '57	3	Col. B. P. Walker to "	5
G. N. N. Porter to March '55	1	Billey W. Talley to July '54	1	P. H. Farmer to "	1
John W. Miller to January '55	1	N. W. Miller to January '55	2	Geo. L. Aiken to January '56	3
R. G. Montgomery to "	2	Wm. Wertembaker to "	1	Wm. F. Carter to January '55	1
Jas. T. Alexander to "	1	Richard Cauthorn to "	1	Rawley Gallaway to "	1
James M. Johns to "	1	Thos. H. Walthall to "	1	Wm. Guthrie to August '54	1
Charles Blue to "	1	Col. B. L. Barrow to "	1	A. T. Gilkeson to Sept. '54	1
Col. Thos. Carskaden to "	1	C. S. Gay to "	1	Warner L. Waring to Jan. '54	1
Capt. David Pugh to "	1	Wm. R. Hatchett to "	1	George Turner to Feb. '55	1
Robert Carmichael to "	1	Gen. S. A. Williams to "	1	Capt. N. L. Paleske to Jan. '55	1
Arthur Warden to "	1	John W. Barker to "	1	A. G. Jeffress to "	1
Jos. W. Morriss to "	1	T. D. Leonard to "	1	Dr. R. R. Puryear to Feb. '55	1
Stephen Dickson to Jan. '54	1	John Sturdivant to "	1	Mayo Cabell to January '53	3
Wm. R. Scarlett to Jan. '55	1	John B. Downman to "	1	Dr. P. C. Calloway to Jan. '55	1
J. J. Ambler to Sept. '54	1	Edward Stabler to "	1	Robert L. Brown to "	1
Wm. A. Scott to Sept. '54	1	B. B. Keesee to "	1	T. B. Montague to "	1
R. T. Bibb to January '54	1	Daniel Jones to "	1	T. C. Robins to "	1
Dr. Josiah Laurence to July '54	1	Wm. H. Whiting to "	1	Wm. Godsey to December '54	1
Wm. P. Newbill to Jan. '55	2	Beverly Randolph to "	1	Joseph Southall to Jan. '55	1
Peter Saunders to April '55	2	M. T. Campbell to "	1	S. B. Major to "	1
Jesse Corn to April '54	1	Elijah J. Stevens to "	1	Thomas Bayley to "	1
R. W. Dalby to April '55	2	Wm. A. Sweet to "	1	James B. Ford to "	1
Jas. Whitehead to Jan. '55	1	Wm. B. Harrison to "	1	James T. Twitty to "	1
A. C. Carrington to July '54	1	J. W. Brockwell to "	1	Dr. W. J. Michie to Jan. '56	2
Wm. S. Thornton to Oct. '54	1	Armstrong Rankin to Sept. '54	2	Dr. Robert Shore to Jan. '55	1
Benj. Sumner to Jan. '55	1	F. M. Ervine to July '54	1	R. F. Ward to "	1
Robert L. Jones to Jan. '55	1	Wm. Gibson to January '55	2	M. Davis to "	1
John H. Clark to Jan. '55	1	Wm. R. Gregg to "	1	Bannister Coffee to "	1
R. P. Pace to April '54	2	E. P. Chamberlayne to "	1	S. Brittan to "	1
B. Franklin Carter to Sept. '54	1	A. Hamlet to "	1	J. R. Manson to "	1
Geo. P. Keesee to January '55	1	Henry M. Baker to March '55	1	T. P. Smith to "	4
Wm. H. Hall to "	1	George H. Lewis to Jan. '55	1	Southey S. Satchell to "	1
Capt. Daniel Coleman to "	1	Thos. R. Dew to "	1	Wm. T. G. Morton to "	1
George W. Dunton to Jan. '54	5	T. B. Robertson to "	1	Col. P. A. Bramham to "	1
Jas. C. Yates to January '55	1	Julius O. Thomas to "	1	Thomas J. Deane to "	1
Vincent Markham to "	1	S. B. Spratley to "	1	J. W. Old to "	1
Thomas Hicks to "	3	W. D. Ranson to "	1	Origen M. Walker to "	1
W. H. Vaughan to "	1	J. T. Cheadle to "	1	Elder H. J. Chandler to "	1
John M. Preston to July '54	3	Pleasant Hubbard to "	1	Dr. Thos. N. Myricks to "	1
Ed. C. Pollard to January '55	2	E. W. Scott to "	1	R. P. Graves to "	1
N. B. Clark to "	1	Rev. D. Witt to "	1	Wm. O. Eubank to "	1
Wm. J. Martin to "	1	E. N. Price to "	2	Dr. J. L. Spencer to Jan. '54	1
Andrew Muirhead to "	1	James M. Dillon to "	1	Robert Hendrick to Jan. '55	1
Robert D. Martin to "	1	W. T. Johnson to "	2	Zorababel Northan to "	1
Harvy A. Jameson to "	1	Wm. T. Wootton to "	2	Geo. F. Harrison to July '55	1
John H. Vermillion to "	1	Wm. T. Harvey to "	1	Dr. E. J. Harrison to Jan. '55	1
Andrew J. Matthews to "	1	George Abbott, Sr. to "	3	Robert A. Calvert to "	1
Rev. John C. Cecil to "	1	Josiah N. Legrand to "	1	Elias Dodson to "	1
Wm. M. Miller to "	1	Col. S. Downing to Jan. '54	2	Sam'l D. Christian to Oct. '54	1
Wm. Anderson to "	1	Isaiah Cherry to Jan. '55	1	Benjamin Vaughan to April '55	1
David M'Gavock to "	1	Jacob Baylor to July '54	2	Jefferson Spindle to Jan. '55	1
Joseph H. Howe to "	1	Christ. Proctor to January '54	4	E. Hickerson to "	1
J. B. Alexander to "	1	Robert Morrison to June '54	1	H. A. Kite to "	1
John Caddall to "	1	M. B. Craig to September '54	1	T. J. Barrett to Jan. '56	10
James Wyson to "	1	T. Whitaker to January '55	1	Nicholas Edmund to Jan. '55	1
James T. Crockett to "	1	Dr. E. A. Salmund to "	1	John W. Paxton to "	1
Gordon Cloyd to "	1	Thos. J. Ancrum to "	1	F. Eppes to "	1
Dexter A. Snow to "	1	Wm. A. Ancrum to "	1	Samuel J. Tebbs to "	1
Dr. James Mottley to "	2	Thos. E. Shannon to "	1	John T. Goodwin to "	1
C. C. M'Phail to "	1	John H. Steger to "	1	John Burr to September '54	1
Hugh Minor to October '54	1	James R. Fleet to Jan. '55	1	R. B. Winfree to January '55	1
P. Fowlkes to January '55	1	Dr. R. H. Nelson to "	1	Josiah D. Smith to "	1
Edward T. Hamlin to Jan. '55	1	W. J. Powers to "	1	Barksdale & Reid to "	1
Z. R. Lewis to "	3	Dr. J. Michaux to "	1	George W. Kyle to "	1
Geo. Whitlock to January '54	1	Ed. F. Baugh to "	1	Capt. J. Anderson to Sept. '54	3
Hugh Chandler to March '54	1	S. Biglow to "	1	W. W. Forbes to "	3

B. Morris to January '54	\$1	J. J. Crews to January '55	\$2	Jesse B. Lucas to Jan. '55	\$1
Wyatt Smith to January '55	1	John B. Crews to "	1	W. T. Humphreys to June '54	1
T. D. Bell to "	1	G. N. Anderson to "	1	Capt. Ed. Beale to "	1
M. M. Johns to "	2	Wm. K. Tune to "	1	Dr. W. E. Walkup to Jan. '55	1
Jer. W. Bondurant to "	1	T. E. Dillard to "	1	Hardy Hardison to "	3
T. D. Richardson to April '55	2	J. H. Cross to "	1	Wm. H. Davis to "	1
Red. W. Wheeler to Jan. '55	1	Wm. Elsom to January '54	1	Wm. Howerton to "	1
Wm. P. Wheeler to "	1	F. G. Morrison to January '56	5	Dr. Henry Easley to "	1
R. E. Dejarnett to Jan. '54	1	T. L. Hundley to January '55	1	Rev. R. H. Wilmer to "	1
E. J. Timberlake to Sept. '54	2	T. Y. Tabb to July '55	2	Wm. S. Dupree to "	1
Rev. E. Boyden to Jan. '55	1	D. M. Wood to April '55	1	Ludy Cawthon to "	1
R. R. Garrett to January '50	1	Sam'l D. Wood to January '55	1	Joseph H. Skelton to "	1
Josiah Burruss to April '55	2	Wm. A. Reynolds to "	1	J. G. Woodson to "	1
Wm. P. Courtney to Jan. '54	1	James B. Brockwell to "	1	W. S. Ligon to "	1
Ed. Farneyhough to July '53	1	Wm. L. Cowardin to "	1	J. Calhoun to "	1
Alfred Carpenter to Jan. '54	1	R. F. Ferguson to "	1	C. J. Fore to "	1
Wm. H. Jones to July '54	1	Dr. Geo. W. Harris to "	2	Ro. Hill to "	1
J. H. Shepherd to January '55	1	J. de Vlaming to January '55	1	J. R. Barksdale to "	1
Jos. W. Twyman to July '54	1	Geo. K. Jones to January '54	2	Oscar M. Crutchfield to "	1
Lewis Steenrod to Jan. '55	1	Col. John Johns to March '55	1	Robert Moir to "	6
John H. Coleman to July '54	1	John W. West to "	1	Dr. W. J. Waller to "	1
Wm. B. Harris to Sept. '54	1	A. A. Legrand to "	1	L. P. Call to "	1
Geo. W. Coleman to July '55	2	Dr. Wm. L. T. Hopkins to "	1	J. Sinclair, Sr. to "	1
James T. Dunkum to Jan. '55	1	Wm. Gordon to January '55	1	John Glenn to "	1
James Faris to "	1	G. S. Harper to "	1	Dr. N. V. Clopton to Jan. '56	2
Wm. H. Turner to "	1	C. Carrington to "	3	Jas. B. L. Williams to Jan. '55	1
Thomas C. Graves to "	1	J. H. Davis to "	7	Theod. B. M'Robert to "	1
Richmond Terrell to Jan. '54	1	Dr. T. P. Shields to "	4	Bolling Hawthorn to "	1
H. M. Harlow to June '54	1	Rand. Harrison to "	1	Peyton S. Coles to July '54	1
J. N. Ragland to January '55	1	Dr. E. J. Harrison to Jan. '56	1	A. T. Maxey to January '55	1
Granberry Nichols to "	3	S. Booker to January '55	1	W. S. Payne to "	1
Geo. W. Lanson to "	1	Alex. Moseley to "	1	W. H. Dickinson to "	1
R. L. Hurt to "	1	W. A. Jones to "	1	Obed Crabell to "	2
Lewis Ellis to July '54	1	J. M. Fowlkes to April '54	1	N. A. Powell to "	1
Geo. W. Eastham to Jan. '55	1	E. W. Simms to April '55	1	Geo. P. Richardson to "	1
Leander Elam to Jan. '56	2	John J. London to Jan. '55	1	Benj. Chambers to "	1
Elsey Fogg to January '55	1	Mayo Cabell to Jan. '54	1	Wm. C. Marrow to "	1
Michael Whitmore to Sept. '54	1	Charles D. Peck to Jan. '55	1	Thos. W. Williams to Jan. '53	1
Temple Walker to January '55	1	Tunis Munsey to "	1	Wm. P. Shepherd to Jan. '55	1
R. H. Cunningham to June '54	1	Edward Johnston to "	1	John A. Thurmond to Jan. '54	1
Waller Holladay to Jan. '55	1	Granville H. Dills to "	1	H. H. Roberts to "	1
Dr. W. J. Pendleton to "	1	Jos. A. Peck to "	1	Rev. Thos. W. Roberts to "	1
John Tucker to April '55	1	Lynch A. Currin to "	1	Ben. G. Harris to January '55	1
Sheler Logan to January '55	1	G. Wood to "	1	Charles H. Lynch to "	6
Richard Bayiklin to July '54	6	J. B. Whitehead to "	1	Gen. O. G. Clay to "	1
R. A. Kidd to January '55	3	Jas. E. Anderson to July '54	1	Wm. S. Field to July '53	1
Rev. A. B. Davidson to "	1	H. W. Barksdale to "	1	W. S. King to April '54	1
Thomas O. Soyars to "	1	Joshua Hightower to "	1	B. W. Womack to January '55	6
James R. Holladay to "	1	John J. Jackson to "	5	John A. Mosby to April '55	1
William C. Jones to "	2	James Ferguson to January '55	1	Archie Brown to January '55	1
Col. James S. Clarke to "	1	Thomas J. H. to "	1	Col. Charles Connor to "	1
Jacob Faulcon to "	1	Wm. F. Wilkinson to "	1	Thomas Daniel to "	1
Joseph S. Judkins to "	1	Moses D. Echols to "	1	Thomas Staples to July '54	2
James Huff to "	1	Bird Dodson to "	1	Dr. John G. Carter to Jan. '54	1
Hanibal Harris to "	1	Stephen C. Townes to "	1	Joseph Spriggs to March '55	1
J. C. Holland to "	3	Isaac T. Oliver to "	1	Gen. George Rust to July '54	1
B. W. Brockenbrough to "	1	Thomas Chaney to "	1	Wm. N. Decker to January '55	1
R. W. Tomlin to "	4	Wm. Wilson to "	1	Dr. Aaron B. Haskins to "	1
S. Gouldin to "	1	Joel H. Tanner to "	1	Wm. T. Mason to "	1
Dr. C. P. Hartwell to "	1	Thos. Rees to September '54	3	S. J. Hart to "	1
A. W. Cousins to "	1	Jas. Law Hooff to Jan. '54	1	Lewis M. Coleman to "	1
R. H. Pollard to "	1	Dr. R. N. Hudson to April '55	1	L. R. Raily to July '54	2
James Dickerson to "	1	George W. Starke to July '54	1	W. W. Minor to January '55	1
H. Madison to February '55	1	Martin P. Brook to Jan. '55	2	Wm. Overton to January '54	1
Wm. Eddins to April '55	1	Wm. A. Bowen to June '54	1	John W. Bradley to Nov. '54	1
Wm. B. Lee to January '55	1	John M. Fant to July '54	1	Robert Tinsley to January '55	1
Philip Slaughter to "	1	J. A. Fisher to "	2	Z. D. Tinsley to "	1
Dr. W. H. Goode to "	1	Geo. Mason Green to April '54	1	Elisha Belts to "	1
Giles Snyder to April '55	1	Chas. P. Chilton to Sept. '54	1	Charles Woolfolk to July '54	1
George Jones to March '55	1	Edwin E. Gibson to Jan. '55	3	Charles H. Winfree to Jan. '55	1
Hugh Montgomerie to Jan. '55	1	Geo. Pannill, Jr. to June '54	1	Wilson Winfree to "	1
Wm. Puryear to "	1	James Williams to Jan. '55	1	John S. Hightower to Sept. '54	1
				John G. Coleman to Jan. '55	1

Geo. R. Lindsay to Jan. '55	\$1	Chas. L. Jones to Nov. '54	\$1	W. H. Moore to July '54	\$2
James Fontaine to "	2	Mrs. M. Henriques to Jan. '55	1	Chas. A. Hundley to Jan. '55	1
Jos. Blanton to April '54	1	Edw'd S. Sydnor to March '55	1	H. G. Richardson, Jr. to "	1
Baker Blanton to January '55	1	Wm. Maxey to January '55	1	Wm. Waring to "	2
Richard Johnson to "	1	Dr. Ed. Hughes to "	1	Wm. S. Gary to "	1
Milton Kirtley to "	1	Thomas Goodman to "	1	Wm. L. Pannill to "	1
Dr. James L. Jones to "	1	Thos. W. Crowder to "	1	George W. Lipscomb to "	4
Mrs. C. L. Armistead to "	1	Rob. J. Goodman to "	1	Elkanah Clements to "	3
Dr. M. Pendleton to Jan. '54	1	Edwin T. Morris to April '55	1	W. S. Fontaine to "	3
Dr. W. F. Gaines to Jan. '55	4	Frank. Shackelford to Jan. '55	1	James B. Ellett to "	2
Stith Bouldin to "	1	Warner T. Cook to "	1	Wm. A. Woods to "	1
E. Brown to "	1	Temple G. Catlett to "	1	John Sizer to "	2
Jn. Yount to "	1	John H. Hughes to "	1	B. Blake to January '56	2
Dr. John G. Skelton to "	7	John R. Cary to "	1	S. Hansberger to January '55	1
John R. Quarles to "	1	Samuel B. Chapman to "	1	Dr. Wash. Anderson to "	1
James D. Crawley to "	1	Capt. John M. Pierce to "	1	Ro. Whitehead to "	1
Dr. A. C. Wood to "	1	Thomas W. Banks to "	1	B. F. Garrett to April '55	1
J. Frank Fry to "	1	E. J. Stubblefield to "	1	George W. Starke to July '55	1
Thos. J. Valentine to "	1	John P. Talliaferro to "	1	Th. H. Brown to April '54	1
J. R. Warren to "	1	Robt. H. Anderson to "	1	F. Lewis Marshall to Jan. '56	3
John N. Gresham to Feb. '55	1	Dr. M. H. Miller to "	1	Edward C. Turner to Jan. '55	1
Jasper L. Rowe to Jan. '55	8	Junius B. Brown to "	1	Rev. A. L. Holladay to May '55	1
John F. M. George to "	2	Thomas Hughes to "	1	Joseph Mayo to January '54	6
S. G. Fauntleroy to "	3	Roscoe C. Trevillian to "	1	Chas. Carter Lee to Jan. '55	2
J. W. Taylor to "	1	Cyrus C. Pointer to "	1	L. L. Smith to "	1
William Pollard to "	2	Robt. B. Jones to "	1	Jesse S. Armistead to "	1
Sam'l F. Harwood to Aug. '54	1	W. F. Jones to "	1	John Lowry to "	1
Geo. B. Mill to January '55	2	F. G. Bridges to "	1	Wm. H. Goodwin to "	1
J. J. Erwin to "	1	Wm. F. Hall to "	1	R. O. Shirley to May '54	1
Pride Jones to "	3	A. S. Trevillian to "	1	David O. Witt to January '55	1
Thomas J. Hicks to April '55	1	Thomas C. Baytop to "	1	Thos. J. Preston to April '55	1
B. Brown to January '55	4	Samuel R. Medlicott to "	1	James T. Jones to January '55	1
Lewis Teel to "	3	Wm. Shackelford to "	1	James W. Hall to "	2
Dr. Wm. A. Hill to June '54	1	John M. Thurston to "	1	Wm. Blackburn to Jan. '53	1
Wm. Hancock to January '55	1	Wm. R. Smart to "	1	James R. Pulliam to April '55	1
Robert Collins to "	1	J. M. Nicholson to "	1	John A. Montague to Jan. '55	1
J. B. Chandler to "	1	James H. King to "	3	A. C. Brown to "	1
Wm. G. Claytor to "	1	Dr. Ro. H. Tebbs to "	3	J. T. T. Hundley to "	1
Dr. T. W. Hicks to "	1	Larkin S. Garrett to Oct. '54	2	John F. Hawkins to "	1
Paul J. M. Horseley to "	1	Dr. J. S. Lewis to "	1	Alex. Cunningham to "	1
Wm. Y. Downman to "	1	James O. Pollard to Jan. '55	2	H. C. Land to "	1
Wm. H. Fowlkes to "	1	W. C. Pemberton to "	3	A. Burton to "	1
Wm. H. Tunstall to "	1	J. T. Neal to Jan. '54	2	C. C. Tinsley to January '55	1
Chas. Mason to September '57	5	Dr. P. P. Duval to Jan. '55	2	J. W. Reeve to "	1
R. C. Robins to January '56	5	James H. Johnson to "	2	Dr. E. P. Williams to "	1
Wm. F. Leavitt to January '55	1	Y. J. Clements to "	3	Smith Petty to January '54	1
R. B. Baptist to "	3	Wm. F. Hilliard to "	3	George Rogers to January '57	4
Dennis R. Fielder to July '54	1	William Boulware to July '54	2	John B. Crenshaw to Jan. '55	1
Capt. B. R. Pulliam to "	10	C. J. Boshier to January '55	2	A. M. Hobson to "	1
R. E. Walker to January '55	10	Mrs. Wm. A. Ellett to Jan. '54	2	John D. Hobson to "	1
Dr. A. Bryant to "	1	Samuel P. Tignor to Jan. '55	3	James M. Walker to "	1
B. Watkins Leigh to "	1	Dr. A. H. Perkins to Oct. '54	1	Dr. John R. Moore to "	1
Tucker Carrington to Sept. '54	1	J. Pemberton to October '53	1	Col. R. Rowzee to "	1
Dr. H. L. Jeffries to Jan. '55	1	Wm. M. Turner to January '55	2	Wm. F. Gunn to "	1
J. F. Claiborne to "	1	Reuben A. Hilliard to "	2	A. S. Jones to "	1
Col. J. A. M'Craw to "	1	David Rider to "	3	Lemuel Martin to "	1
Beverly E. West to April '55	1	Temple C. Moore to "	2	N. B. Richardson to "	1
John A. Britton to Jan. '55	1	Philemon Bird to July '53	2	A. L. Anderson to "	1
Capt. Ed. Haskins to "	1	Edward Gresham to Sept. '54	3	James Armistead to Jan. '56	2
Thomas Betterton to May '55	1	R. T. Gwathmey to Jan. '54	2	E. L. Bullard to December '54	1
Thomas Paramore to Jan. '55	1	Temple Clark to March '54	1	J. T. Hamner to January '55	1
N. C. Crenshaw to "	1	Philip E. Brooke to Jan. '55	1	Dr. Minge to "	1
Thomas R. Hazard to "	1	Lewis Taylor to "	1	Nath'l N. Manlep to Nov. '54	1
A. A. Hughes to "	1	Wm. C. Hundley to March '55	1	John White to January '55	1
I. A. Goddin to "	1	Thomas Haynes to Jan. '55	1	R. Harrison to April '55	1
Claudius Dickinson to "	1	Wm. B. Bailey to March '55	1	John Walker to May '55	1
J. O. Claybrook to "	1	G. W. Eichelberger to July '54	2	Wm. F. Nicol to July '54	1
Freeman Epes to "	1	F. N. Eichelberger to "	2	Dr. W. A. Christian to Jan. '55	1
Joseph H. Rowlett to "	1	Roger Chew to October '54	1	Dr. A. L. Brent to "	1
Henry O. Gill to "	1	Amos Shepherd to July '54	1	H. P. Taylor to April '55	1
R. H. Harwood to "	1	J. M. M'Farland to "	1	R. L. Rudasilla to Jan. '55	1
Wm. H. Hening to "	1	W. T. Brittingham to Jan. '55	1	Joseph S. Perkins to May '55	1
Dr. A. V. Payne to "	1	Jacob Michaux to July '55	1	Hiram O. Bannon to Jan. '55	2

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(FORMERLY UNION,)

Corner of Main and Nineteenth Streets, Richmond,
J. E. NORRIS, PROPRIETOR.

mar—tf Price of Board, per day, \$1 50.

SOUTHERN AGRICULTURAL IMPLEMENT MANUFACTORY AND SEED STORE.—We would call the particular attention of farmers to our Horse-Powers and Threshing Machines, that we and many others consider the best in use, on account of simplicity, durability and economy to the user; easy kept in order, giving little or no dust to the feeder; the strongest and most durable in use. We call the attention of those in want to send in their orders as early as possible, as we do not wish to disappoint any who may be in want of a good machine, as we were unable to supply the demand last year for a great many, owing to not receiving the orders in time. We build from four-horse sweep power to twelve-horse. Also Mott, Lewis & Willson's Wrought Iron Railway Horse-Power for one or two horses. All of which we warrant to give entire satisfaction, and do more work in a given time, according to team, than any machine in this State. We will refer to a few gentlemen, if necessary, who live in different counties, and have used our machines, so that those who are in want of a superior machine can inquire of its merits: Francis Nelson, G. T. Brumby and Dr. L. C. Crump, New Kent; Col. Thomas Wilcox, Dr. William A. Selden and Dr. James Wilcox, Charles City; Dr. N. M. Osburn, Prince George; J. P. Talliaferro, York county; Fielding Taylor, T. M. Stubblefield, William H. Roy and W. P. Smith, Gloucester; Henry Cox, Henrico; George Taylor, Hanover; William M. Harrison and H. L. Brook, Richmond city; Colonel Hancock and A. W. Dunn, Chesterfield; Robert Dunn, Petersburg; Hon. Wm. S. Archer, Dr. Scott, V. Archer and W. V. Southall, Amelia; William E. Green, Charlotte; Randolph Harrison and Julian Harrison, Goochland; I. R. Barksdale, Albemarle; D. C. Dejarrett, Caroline; Col. C. G. Coleman, Louisa; H. M. Nelson, Clarke, and many other gentlemen, who have used our machine, and any of those gentlemen will, with pleasure, give their opinion of its qualities. We also manufacture Zimmermann's Improved Machine for threshing, cleaning and bagging at one operation. This machine is gotten up in the best manner, of the best materials, and warranted to perform well. It has taken the premium over the Pitts' New York or Buffalo Machine at several fairs, and it is classed a No. 1 machine. We manufacture three sizes, 24, 30 and 36 inch machines, four, eight and twelve-horse powers, and cheaper than any other machine for the same purpose. Those who are in want of a first class Thresher will please send in their orders early. Thankful for past favors, we shall endeavor to merit a continuance of the same.

MOTT, LEWIS & WILLSON,
Sign of the Plough, No. 36 Main Street.

ap—3t

GENERAL AGENCY AND COMMISSION BUSINESS.—The subscriber tenders his thanks for the many calls heretofore received, and again offers his services on reasonable terms. Now for sale many Farms in Maryland and Virginia, Stallions, Bulls, Bucks, Boars, of improved stock; improved Fowls of all kinds; Mares, Cows, Ewes, Sows; Ewes one-half and three-fourths Cotswold; Calves at three months old, one-half Alderney; South Down Ewes with their lambs. For particulars address (post paid) the subscriber,

MARTIN GOLDSBOROUGH,
38 Holiday Street, Baltimore, Maryland.

P. S.—Answers to letters particularly desired. M. G. may—1f

REMOVAL.—SAMUEL SUTHERLAND respectfully informs his friends and the public that he has removed his GUN and PISTOL STORE from his late stand, opposite the Banks, to a house opposite Eagle Square, in room No. 132, which has been handsomely fitted up, especially for the accommodation of himself and his patrons, and where he is now opening a new and splendid assortment of Guns, Pistols, Cutlery, Canes, Fishing Tackle, and all kinds of goods desired by Southern Sportsmen, embracing many articles useful to farmers and housekeepers generally—all of which he offers at reasonable prices, by wholesale or retail. Thankful for past favors, he respectfully invites his friends and customers to call and see him at his new stand.

may—3t

VALUABLE ALBEMARLE FARM FOR SALE.—The subscriber offers for sale that valuable and well known farm, the D. S., situated on the waters of Ivy Creek, 3½ miles from the University of Virginia, 4½ from Charlottesville, and immediately on the Staunton and Charlottesville Turnpike, and Virginia Central Rail Road, in one of the most beautiful sections of the State, and in a neighborhood long proverbial for its highly cultivated society, its fertile lands, its pure and abundant water and general healthfulness; also possessing the greatest facilities to the best of markets. The D. S. contains 695 acres, about one hundred acres in timber, and the balance in a fine state of improvement. It has for many years been considered one of the most productive farms in the county, producing finely all the various crops of this section. There is an abundant supply of running water in every field, and large portions of the farm could be converted into watered meadow. The improvements are good and of every variety. Being anxious to sell, terms will be made very accommodating. Address

GEO. B. STEPHENS,

ap—1f Woodville Depot, Albemarle, Va.

PREMIUM WHEAT FANS.—We are sole Agents for the Rockaway Fan, for which the premium was awarded at the Virginia State Agricultural Fair in November last, and are prepared to receive orders for the same at the manufacturer's prices in Baltimore. We have also for sale Hickok's Premium Cider Mill, at manufacturer's price; Taylor's Patent Hames, the very best article now in use. All of which we shall be happy to supply our customers with at our Southern Agricultural Implement Manufactory and Seed Store, sign of the Plough, No. 36 Main Street.

ap—4t MOTT, LEWIS & WILLSON.

PRIME MERINO STOCK FOR SALE.—The undersigned having associated himself with Col. Philip St. Geo. Cocke, for the purpose of growing fine wool and raising choice Merino Stock, and ultimately upon a very extensive scale in both Powhatan and Brunswick counties, is now prepared to offer 75 buck lambs, old enough for delivery in September next.

These lambs are sired by three Bucks which have taken prizes in two different States of the Union. One of them took the first prize in the State of New York for two years in succession. A large number of our Ewes have been purchased from very superior northern flocks. I have on hand some good stock Bucks nearly ready for use this fall.

I will box up and deliver for transportation, either on the James River Canal or Danville Rail Road, with proper directions for feeding and without extra charge, any stock ordered, but will in no case be responsible for accidents or losses occurring after such delivery. The cash must in all cases accompany orders.

Neither care nor expense will be spared to procure and keep up Stock of the purest and best quality; and I assure the Southern Agriculturists that it is designed to make this one of the most interesting and best wool growing and stock raising establishments in the United States.

I invite persons interested to call on me at my residence at Belmead, or to address me by letter as below.

THEODORE N. DAVISSON,
Jefferson P. O., Powhatan co., Va.

jun—4t

ALBANY TILE WORKS, corner of Patroon and Knox streets, Albany, N. Y. Drain Tile of the following descriptions and prices suitable for land drainage, always on hand in large or small quantities of the first quality, delivered at the docks and railroad depots free of cartage:

Horse-shoe Tile.

4½ inch calibre,\$18 per 1000 feet.
3½ do. 15 do.
2½ do. 12 do.

Sole Tile or Pipe.

3 inch calibre,\$18 per 1000 feet.
2 do. 12 do.

Large Tile for drains about dwellings, yards, &c., of various sizes, \$4 and \$8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains at \$4 per 100 feet. Drain your land and save your crops. Orders from a distance will receive prompt attention.

A. S. BABCOCK.

Albany, April 20, 1854.

jun—1f

GREAT PREMIUM FAN, patented December 20, 1853. Montgomery's Celebrated Double Screen Rockaway Wheat Fan, has, during the past year, been proved to be the best Fan ever offered in the Middle States, having taken premiums over all that have been offered to the public from every quarter of the United States. It took the first premium at the Maryland State Agricultural Society's Exhibition, in October last, where all the most celebrated Fans were in competition.

The first premium at the Virginia State Agricultural Society's Exhibition, in November last.

The Maryland Institute awarded silver medals to it at its Exhibitions in 1852 and 1853, as superior to all others on exhibition.

The first premium was awarded at the Talbot County (Maryland) Show, in 1852; and

The first premium at the Prince George's County (Maryland) Exhibition, in 1853, by the special vote of the Society, in consequence of its superiority and value, it being contrary to their standing rules to award premiums to articles made out of the county.

We annex the following certificate from a respectable farmer of St. Mary's county, and any number of others could be published if necessary, all tending to show the decided superiority of this Fan over any others that have ever been introduced in the Middle States—and as the manufacturers devote their whole attention to this one article, and rely for its continued success upon the faithfulness of its make, as well as the superiority of its principles of construction, farmers and others may rely on having their Fans made of the best materials and workmanship.

ST. GERAMERS, ST. MARY'S CO., MD., Oct. 6, 1853.

This is to certify, that I have tried Messrs. J. Montgomery & Brother's Wheat Fan in some tailings I made in cleaning a part of my crop, which I did not think could be made worth anything; it extracted from a bushel and a half of filth about three pecks of pure wheat. I must say that I never saw a Fan that can even come in competition with J. Montgomery & Brother's Rockaway Wheat Fan, for screening wheat.

BENJAMIN M'KAY.

REFERENCES.

City of Baltimore: John S. Williams, foot of Commerce street; Messrs. Seth & Godwin, No. 4 Bowly's wharf; E. B. Harris, No. 4 Bowly's wharf; Michael Dorsey, Light street; Thos. J. Hall, Light street; N. E. Berry, Lombard street; Mr. Wear Charles; R. D. Burns, foot of Bowly's wharf; chants. No. 2 Bowly's wharf—all commission merchants.

Virginia referees: Gen. B. Peyton, Virginia; William S. Archer, Virginia; Harvey, Virginia; Rowlett H. Carter, Virginia; Lewis G. C. Lane, Richmond; Robert Cole, & Co., Petersburg; A. Heartwall, D. I. Payner, James B. Lunford, Virginia; M. Jones, Geo. W. Field, Col. Isham Trotter, John Ravenscroft Wm. Towns, Jas. Hays, Sr., Dr. Wm. W. Oliver, Sams, McGehee, William M. Watkins, William I. Scott.

We are prepared to sell State or County rights to those who wish to manufacture our Fan.

All orders addressed to the undersigned at the Baltimore City (Md.) Post Office, will be promptly attended to.

J. MONTGOMERY & BRO.

No. 155 N. High st., between Hillen and Gay streets,
mary—ly Baltimore.

SUFFOLK PIGS.—The subscribers are prepared to receive orders for pure Suffolk Pigs, bred from stock imported by the late William Stickney in 1848, and by the subscribers in January; also an importation of twelve in October, 1853. Address

JOSIAH STICKNEY, Watertown,
Or, ISAAC STICKNEY, Boston, Mass.

ap—3t

IMPROVED SUPER PHOSPHATE OF LIME.—The subscriber is manufacturing the above at his Bone Mill, a short distance from the city, of the best and purest kind. Farmers are requested to examine his before purchasing elsewhere; the quality will speak for itself, and his price is the same as that manufactured out of the State.

mary—tf

R. R. DUVAL.

SUPERIOR SWINE AND PREMIUM POULTRY.—I am prepared to engage pigs by my large Byefield and superior Suffolk boars, from matchless sows of the following breeds: Byefield, Suffolk, Skinner, Essex, Chester, Delaware, Cheshire and Russian—most of them of mammoth size.

The finest collection of ornamental and domestic Poultry in Virginia—receiving the premium as the finest collection and upon individual pairs. They consist of the following: Brahma Pootra, Imperial Chinese, Colatta, Dorking, Spangled Hamburg, Seabright and African Bantams, Sumatra Pheasant Game, Ablin Game, Mexican Game, Ebon Game, Crested Turkey, Purple Turkey, Pure White Turkey, Bremen Geese, Hong Kong Geese, Wild Geese, Crested Black and White Ducks, Java Ducks, Penguin Ducks, Rouen Ducks, Aylesbury Ducks, Pure White Guinea Fowls, Italian Pea Fowl, Madagascar or Lopped Eared Rabbits—ears 22 inches long, 5 broad.

The above are bred in separate apartments, and can be obtained at moderate prices by addressing

JOHN G. TURPIN,

Clover Dale, near Petersburg, Va.

mar—tf

GREAT REDUCTION IN PRICES OF HATS AND BOOTS.—J. H. ANTHONY'S FASHIONABLE HAT STORE, Columbian Hotel Corner. The cheapest place in the city of Richmond to buy hats and boots is at the above store, where every article sold may be relied on as represented. By this means he has gained a good run of custom, and his customers feel satisfied. Below is a list of his prices, which will be strictly adhered to:

Best quality moleskin, - - -	\$3 50
Second quality moleskin, - - -	3 00
Best quality silk, - - -	2 50
Second quality silk, - - -	2 00
Fine Calfskin Sewed Boots only three dollars and fifty cents.	

Also, Caps, Shoes and Umbrellas.

J. H. Anthony has made an arrangement with one of the best makers in the city of Philadelphia to supply him with a handsome and substantial calfskin sewed Boot, which he will sell at the unprecedented low price of three dollars and fifty cents. The attention of gentlemen is respectfully solicited, as they are the best and cheapest boots that have ever been offered for sale in this city. He intends to keep but the one kind, and sell them at one price.

mar '54—tf

AT THE SOUTHERN AGRICULTURAL IMPLEMENT MANUFACTORY AND SEED STORE, can be found a large collection of the strongest and most useful articles for the Southern farmer, as will be seen by reference to the report of the committee on that branch at the Virginia State Agricultural Fair, held here in November

1853, that the premium for the largest, strongest and most useful collection of Implements was awarded to Mott, Lewis & Co. They are daily adding to our assortment from our large Machine Shop, Ploughs of all kinds from the most approved patterns now in use. Among them may be found the justly celebrated Wiley or Mott Plough, with double points; Minor & Horten of Nos. 18, 18½ up to No. 22; Hitchcock, Nos. 21 and 21½; improved Davis, both wrought and cast share; improved Mc' Cormick, improved Livingston, from the original patterns, and many other kinds too numerous to mention. Also, castings for all ploughs, by the piece or ton; Corn Cultivators of different kinds; Tobacco Cultivators; Harrows, from one-horse up to four-horse; Corn Shellers, from the single spout up to the Virginia Sheller and the Premium Mumma Sheller; Corn and Cob Crushers; Straw Cutters of all patterns from \$7 up to \$55; Grain Cradles of the most approved patterns; Grass Swards; Churns, Ox Yokes, Store Trucks, Hay and Straw Forks, from 6½ cents up to \$1 50; Spades, Shovels, and many other articles too numerous to mention. Also, Landreth's best Garden and Field Seeds. All of which will be sold on as reasonable terms as they can be had from any Northern city. Call and examine for yourselves.

MOTT, LEWIS & WILLSON,
Sign of the Plough, No. 36 Main Street.

ap—4t

ATTENTION FARMERS AND MILLERS. Premium Grain Cleaner—patented April 20, 1852. We would most respectfully call the attention of Farmers and others to our Improved Grain Fan, which we are manufacturing at our shop in Fredericksburg, Va., where we have a number finished for the inspection of Farmers and others. We might give thousands of certificates to show the superiority of our Fans, but deem it unnecessary, as a trial of the fan will give satisfaction. It is simple in its construction, and cannot be surpassed in expeditiously cleaning all kinds of Grain from Cockle, Smut, Garlic, Cheat, &c., and is an excellent chaffer. We have selected good material and would be pleased to furnish all in want of a good Fan mill. All our work is warranted to be well made and do a good business. Our teams are passing through the country, and will deliver Fans at any point within seventy miles of the shop. Those convenient to rail-road or steam-boat landings can have them delivered at their depot.

Farmers will please send their orders early.

Communications addressed to T. J. Doyle & Co., at Fredericksburg, Va., are promptly attended to.

For Premiums and Certificates see handbills.

jun—2t* T. J. DOYLE & CO.

FARM, STOCK, CROPS, NEGROES, & C., FOR SALE.—The subscribers are authorized to sell a valuable farm in the county of Buckingham, $5\frac{1}{2}$ miles from the Court House, containing upwards of 800 acres, having on it every necessary improvement, consisting of a handsome two story dwelling just completed, barn with threshing machine, stables, corn crib, carriage and ice houses, blacksmith's shop, &c., with a kitchen and meat house about to be erected. It has also a fine garden and an orchard of choice fruit, embracing almost every variety grown in Virginia. It will be sold with the growing crops, (175 bushels of wheat and 100 bushels of oats have been seeded) stock, tools and implements of every description, and 16 first rate farm and house servants, one of whom is a good blacksmith.

This farm is situated in a region proverbial for health and agreeable society, 15 farms and dwellings being in view from the dwelling.

The owner desiring to remove to the South, and being unwilling to break up the relations existing among his negroes, will dispose of the whole at a great bargain.

For terms, &c., apply to

MARTIN GOLDSBOROUGH, Baltimore, or
RUFFIN & AUGUST, Richmond, Va.

jun—tf

GENERAL AGENCY FOR THE SALE AND PURCHASE OF LANDS.—FRANK: G. RUFFIN, Secretary of the Virginia State Agricultural Society, and N. AUGUST, Notary Public and Accountant, offer their services to the public as General Agents for the sale and purchase of lands in Virginia, and in the Southern and Western States. Those wishing our services, having lands for sale, are requested to furnish us with a full description of such property, and the terms, &c., upon which they are willing to sell; and those wishing to purchase are requested to inform us of the locality in which they wish to purchase, the price they are willing to pay, &c. Our charges will be moderate.

Office at the office of the Virginia State Agricultural Society. jan—tf

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-Staffs, 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

STEPHEN H. FISHER, MANUFACTURER OF BOOTS AND SHOES, No. 228, Broad Street, north side, between 3d and 4th streets, Richmond, Virginia, keeps constantly on hand a full assortment of ready made Boots and Shoes of his own manufacture, for Ladies' and Children's wear, which he will sell as low as can be purchased in this city. Boots and Shoes for Gentlemen and Boys on hand, or made to order at short notice. Servants' Shoes of all qualities always on hand. All work warranted.

Farmers are invited to give him a call. oclj

J. B. & W. F. POAGUE'S PATENT PLAN FOR HYDRAULIC CEMENT PIPES.—This is the cheapest and most durable piping ever offered to the public for conveying or elevating water for any distance desired, and can be enlarged or diminished to suit the flow or column of water, and the strength increased in proportion. The pipes can be either moulded in the ditch just as they are intended to remain, or moulded in a yard, and when hardened, transported any distance, and the pieces united in the ditch by cement mortar. The pipes can be easily attached to the ram or any kind of hydrant. They have been thoroughly tested by a number of persons. All persons desiring further information, or wishing to purchase rights for any un-sold State or county, can get a printed circular containing directions for constructing and using said moulds, with certificates of their utility, by applying (post-paid) to the Patentees.

We are prepared to undertake and execute jobs of piping in this and the surrounding counties.

J. B. & W. F. POAGUE.

Address Fancy Hill P. O., Rockbridge county, Va.

jun—2t*

ALBANY AGRICULTURAL WORKS.—EMERY'S Patent Rail-road HORSE POWERS THRESHING MACHINES, SEPARATORS, &c. together with a full and general assortment of Farm Implements and Machinery, Field and Garden Seeds, Fertilizers, &c. &c. Full Catalogues and descriptions sent gratis on application to the subscriber.

RICH'D H. PEASE

369 & 371 Broadway, Albany, N. Y.

The above machines may be procured of Mr. James A. Lipscomb, Richmond; Rowlett, Hardy & Co., Petersburg; Addison & Meade Alexandria; Radcliffe & Son, Washington, D. C., at Albany prices, adding transportation. jun—2t*

SINTON & SONS' NURSERY, NEAR RICHMOND, VIRGINIA.

AS the season for planting has arrived, the subscribers would respectfully call the attention of their friends and the public generally, to their large and extensive collection of FRUIT TREES, embracing, perhaps, a selection that has not been surpassed, for the climate of Virginia, and nearly all propagated from fruit-bearing trees in their own orchard.

Catalogues, with directions for planting, may be had at William Palmer's Seed and Plough Store; at Peyton Johnston & Brother's Apothecary Store; at C. J. Sinton & Co's. Hardware Store, and at Logan Waller's Commission House, where any orders left will be punctually attended to, and letters addressed to the subscribers, Richmond, will receive prompt attention.

nov—tf

JOSEPH SINTON & SONS.

AGENCY FOR THE PURCHASE AND SALE OF IMPROVED STOCK.

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

AARON CLEMENT, Philadelphia.

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

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

CONTENTS OF NUMBER V.

	PAGE
Essay on Enriching and Improving Poor Land.....	161
A Reviewer reviewed—an Oddity let loose.....	164
Report on Fighting Creek Farm.....	168
How is the Agricultural Society of Virginia to be Placed upon a Permanent and Self-sustaining Basis?.....	169
Farms Improved by Keeping Sheep.....	170
Steam among the Farmers.....	170
Soda Water.....	173
Premium Essay on Hillside Ditching.....	173
Shanghai Cocks and Hens, with a Portrait.....	176
Quere about the Roof of Tobacco Houses.....	177
The Prospects of Stock.....	177
The Tobacco Crop of Virginia.....	178
The Wheat Crop.....	178
Price of Wheat in England.....	178
Harvest Drink, Diet and Medicine.....	178
Analysis of the Red Lands of the S. W. Mountains.....	178
Acceptance of Mr. Timberlake's Challenge.....	180
Distemper in Cattle.....	180
To Eradicate Sassafras.....	181
Insects in Wheat and Oats in 1769, 1732 and 1755.....	181
On the Application of Guano for Corn.....	181
Saltpetre as a Manure.....	182
Experiments in Succoring Corn.....	183
Drifting Soils—their Management.....	183
How to Winter 100 Sheep from Two Acres of Land.....	184

McLANE'S WORM SPECIFIC.

The following, from a customer, shows the demand which this great medicine has created wherever it has been introduced:

BLOSSBURG, Tioga Co., Pa., March 30, 1850.

Gentlemen—In consequence of the great consumption of your "Worm Specific" in this place and vicinity, we have entirely exhausted our stock. We should feel obliged by your forwarding, via Corning, N. Y. 20 dozen, with your bill, on the reception of which we will remit you the money.

From the wonderful effects of said "Specific" in this neighborhood, there could be sold annually a large quantity, if to be had, (wholesale and retail) from some local agent. If you would compensate a person for trouble and expense attending, I think I could make it to your advantage to send you, respectfully,
WM. M. MALLORY,

McLane's Celebrated Liver Pills, which will please be careful to ask for "Dr. other vermifuges, in vermifuges," and take none else. All Lane's genuine Vermifuges, are worthless. Dr. Mc can now be had at all respectable celebrated Liver Pills, States and Canada.

NO FAMILY SHOULD BE WITHOUT

We speak of McLane's Liver Pills, which come an indispensable Family Medicine. The frightful symptoms which arise from a diseased Liver manifest themselves, more or less, in every family; dyspepsia, sick headache, obstruction of the menses, ague and fever, pains in the side, with dry, hacking cough, are all the results of hepatic derangement—and for these Dr. McLane's Pills are a sovereign remedy. They have never been known to fail, and they should be kept at all times by families.

DIRECTIONS.—Take two or three going to bed, every second or third night. If they do not purge two or three times by next morning, take one or two more. A slight breakfast should invariably follow their use.

The Liver Pill may also be used where purging is simply necessary. As an anti-bilious purgative, they are inferior to none. And in doses of two or three, they give astonishing relief to sick headache; also in slight derangements of the stomach.

Purchasers will be careful to ask for "Dr. McLane's Celebrated Liver Pills," and take none else. There are other Pills, purporting to be Liver Pills, now before the public. Dr. McLane's Liver Pills, also his celebrated Vermifuge, can now be had at all the respectable Drug Stores in the United States and Canada.

For sale by
PURCELL, LADD & CO.
Corner Main and 14th street, Richmond.

ZIMMERMAN & CO'S CELEBRATED PATENT PREMIUM THRESHER, CLEANER AND BAGGER, which received the first premium at the Crystal Palace, New York, this making ten premiums in two seasons, in competition with the most celebrated Separators of the day; proving conclusively, that simplicity in construction, cheapness in price and durability in machine, is being fully appreciated, and the old complicated costly separators must yield their place to a superior machine. This Machine, for threshing, separating, cleaning twice, screening and bagging, (by one simple operation,) all kinds of Grain—the greatest labor-saving machine extant; for simplicity, durability, cheapness and capacity, it has no rival in the world. It is capable of turning out, ready for the mill or for seed from 300 to 500 bushels of wheat per day, with six or eight horses, and eight hands—or from 500 to 800 bushels with twelve horses and as many hands, doing the work cleanly and breaking less grain, than any machine now in use. This machine received the first premiums at the Maryland State Fair, Baltimore, in 1852 and 1853; the Washington County Maryland Fair; Valley Agricultural Fair of Virginia in 1852 and 1853; the Rappahannock Agricultural Society, at Port Royal, Va.; Indiana State Fair, Indianapolis, 1853. This machine is so simple in construction, that the still fan and shoe completely cleans and bags the grain, dispensing with all the complicated machinery (and consequent liability of derangement) in all other separators, thus making it more desirable to the farmer.

SHOP PRICES OF ZIMMERMAN & CO'S THRESHER, CLEANER, BAGGER AND POWER—Thresher, Cleaner and Bagger complete, 6 and 8 horses, \$175; Power for same, \$100—making \$275 for the whole complete. Thresher, Cleaner and Bagger, 36 inch Cylinder, \$200; Power for same, \$135, for 8, 10 and 12 horses. This machine is complete with Band, Wrenches, &c.

REFERENCES.—Samuel Sands, Esq., Editor of the "American Farmer"; Col. Edward Lloyd, Easton, Md.; Capt. D. Cox, Northumberland county, Va.; Hill Carter, Esq., Richmond; Richard Willis, Esq., Richmond; Col. Charles Carroll, near Ellicott's Mills, Md.; F. Nelson, Esq., Richmond; Col. B. Davenport, Jefferson county, Va.; Dr. Harding, Northumberland county, Va.; Captain Hardie, Northumberland county, Va.; Hugh Nelson, Esq., Clarke county, Va.; Charles Mason, Esq., King George county, Va.; S. W. Thomas, Esq., Clarke county, Va.; Dr. T. and Marlow, Frederick city, Md.; David Boyd, Esq., Frederick city, Md.; Ezra Houck, Frederick city, Md.; Samuel L. Middletown Valley, Md.; John Clagett, Hagerstown, Md.

The above machines are manufactured in Charlotte, Virginia. All orders addressed to us will be attended to with promptness, and all Threshers sent out warranted to come up to the standard.

ap—3t*

ZIMMERMAN & CO.

IMPORTANT TO AGRICULTURISTS.—I desire to call the attention of the farmers of Virginia, Maryland, &c. to my patent attachment for grinding and distributing grain, and to give notice that I claim to be the true and original inventor of these machines now on sale at the agricultural warehouses of Addison & Meade, Alexandria, Va., and which will be sold at the warehouse of Baker & Brown, Winchester, Va. They are also in possession of many farmers in Clarke, Jefferson, Culpeper and other counties. Although a patent has been granted by mistake to Messrs. Henson & Rhor of Charlestown, Va., for a part of my machine, I have taken measures at the Patent Office to establish my original exclusive title to the invention claimed by them, and shall enforce my rights by the due course of law.

Persons desirous of obtaining these machines, or wishing to purchase rights for counties, States or territories, will please apply to me at Summit Point, Jefferson county, Va., or to Addison & Meade, Alexandria, Va., or to Baker & Brown, Winchester, Va. Farmers can have the attachment affixed to any drill by application as above.

jun—3t

T. F. NELSON.

McCONNELL & BURTON,
DENTISTS,

Main Street, between 9th and 10th Streets, Richmond, Va.
JOHN McCONNELL.
W. LEIGH BURTON.