

THE SOUTHERN PLANTER.

Devoted to Agriculture, Horticulture, and the Household Arts.

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

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

FRANK: G. RUFFIN, EDITOR.

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MINUTES OF AGRICULTURAL FACTS AND OBSERVATIONS,

*Collected and noted by the Agricultural Commissioner,
and ordered to be published by the Executive Com-
mittee of the Virginia State Agricultural Society.*

[Continued from page 291.]

Fruit and Fruit Trees.

35. Mr. R. T. Lacy, of New Kent, has been successful in rearing and growing peach trees. His orchard contains nearly forty fine varieties, and several of them of new and valuable kinds, all produced from seeds planted by himself. Some persons rely with confidence on the seeds of choice peaches producing trees of like fruit. Others distrust the seeds altogether for continuing the kind, and rely only on grafting or inoculating for that object. Mr. L. has found that in a great majority of cases, the seeds of the best peaches have produced like kinds, without any diminution of size, flavor, or other value. In the cases of exception from this general result, the products of seeds have been other kinds of peaches, generally inferior, if not worthless. But in a small number of such cases of variation of the product from the parent fruit, he has obtained new and also improved and very fine kinds.

36. Mr. Lacy has practised, with entire success, a similar mode (which he saw recommended in a Tennessee paper) guarding against the worms which injure peach trees, and destroy so many entire orchards, by boring into the tender bark, just at the junction of the stem and the roots, or at the surface of the earth. The remedy is simply to raise a hill or mound of earth around the lower part of the body of each tree, about 12 or 18 inches high, (or as large as a sweet potato hill.) This covering kills the worms already in the tree, by excluding air—and the earth covers the tender bark, which is all at or below the former surface of the earth, so that there is not, in the harder bark above, a suitable place for the boring of the parent insect. The hills may be raised at any time. They have not been removed, nor have they required any further change. For some years of trial, the plan has been found entirely successful.

[Query. Where marl is plenty, would it not be well to make the hill of marl, instead of common earth? A thick and hard covering of the earth below stone fruit trees has been found greatly be-

neficial in preventing the boring into the ground of cutworm, which breeds the worms that injure stone fruit.—E. R.]

37. Mr. Th. M. Crowell, of Halifax county, North Carolina, informed me that the smearing a very little tar, by rubbing over with a slightly tarred piece of cloth, will effectually prevent young fruit trees being barked by hares in winter. It is not necessary, and would be injurious to the young trees, to cover the exposed part with tar. A slight touch of the soft tar, here and there, from the earth to as high as the hares can reach, is sufficient, as the strong odor of the tar deters them from eating any bark so contaminated. Of course, such an application, and so acting, will require renewal at the beginning of every winter. As very young and small trees with tender bark only are exposed to this common and great injury and destruction, such young trees are very easily treated as advised.

38. If a valuable young apple tree should have the bark eaten around by hares, it may be saved. Mr. Julian C. Ruffin, of Prince George county, had a young tree, then about an inch in diameter, of which the bark was thus eaten off all around, the irregular ring so skinned being from one to three inches wide. This injury occurred some time in the winter. The next spring, at the proper time for grafting, (1850) two apple twigs (which had been before cut for grafting) were grafted into the remaining and living bark, both above and below the skinned wood—one graft on each side of the tree. The grafts united well with the tree, and grew rapidly, the whole sap passing through them. The skinned portion of the young tree soon died, and the grafts now make double stems, of sufficient size and strength, and which will in time meet and unite. If, in such a case, there had been one or more sprouts growing from below the wound, it would be still better to ingraft above.

39. Another fact and matter of trial may be useful. It is the universal understanding that *grafting* only can be done in spring, and *budding* late in summer. But if for any reason, apple twigs designed for grafting, cannot be so used, their buds may be used for budding. Being kept buried in the earth, the sap will move in such twigs, the buds swell, and the bark will then slip. As soon as this condition occurs, buds from the twigs may be inserted in the bark, and will live as well as if at the usual and much later time—as Mr. R. has tried and proved in practice, as to apple grafts. He has not tried in this manner the buds of any stone-fruit. If they can be thus propagated, by spring-

budding from twigs cut off and buried in winter, an important purpose can be served. Stone-fruit, though easily and safely budded, cannot well be propagated by grafting. The buds cannot be conveyed alive and healthy any considerable distance in summer, the usual (and supposed only) time for budding. But in winter, the twigs may be safely carried to any distance, and then, in the manner just described, (if applicable to stone-fruit,) the buds may be inoculated in the spring.

40. Lieutenant M. F. Maury, U. S. N., long ago made some thermometrical experiments and observations on the difference and changes of temperature, on valley ground and different heights of the hill-sides rising above. The results were, of course, in accordance with the laws established by science, of the accumulation, radiation, &c. of heat. But the differences observed between hill and valley were unexpectedly great, and indicated important and sure rules for the proper positions of peach and other fruit trees, of which the young fruits are especially liable to be killed by late spring frosts. The surface, soil, and also the air nearest to the earth, in valleys, or low lying land, are much more highly heated in the day, and are also cooled to much lower degrees in the nights, and especially under conditions of the atmosphere most favorable to the radiation (and loss) of heat. Hence, the heat of the earth and of the air of valleys, in sunshine, tend to forward the budding and blossoming of peach trees sooner than would be on the higher hill-sides, (other conditions being alike and equal,) and the much greater lowering of temperature in the valleys, in the clear nights, and consequent severer and later frosts, must act to kill tender fruits when they would be safe on higher though neighboring positions, where as great fluctuations and extremes of both heat and cold cannot exist.

Though the experiments and observations made and stated to me by Lieutenant Maury would be enough to assure us of their value as instruction in practical agriculture, this instruction is not merely of theoretical and scientific reasoning. The rules indicated have, in some cases, been illustrated in practice, and the practical results have been found to accord with and sustain the theory. He stated as examples of the working of the rule, the following facts:

In Amherst county, a gentleman pointed out to him, a particular horizontal strip of forest land, on which the young sprouts were never killed by severe late frosts, when they were generally killed on neighboring land of lower elevation.

In Frederick county, there is an elevated ridge of land on which the apples so generally are safe, when all others in the neighborhood are killed by frosts, that it has acquired the name of "Apple-pie Ridge."

When visiting a relative, in Albemarle, he found that all the peaches had been killed by frost in the peach orchards in the valley near the mansion, while they had escaped, and were bearing in abundance at another part of the estate, high up the side of the neighboring mountain.

The usual safety of the peaches on elevated localities near Washington, affords frequent and extensive proof of the rule. And these proofs were, on one occasion, the more striking, by the contrast of the peach trees of a very careful culturist, on much lower land, having been all killed by frost, when all the neighboring hill orchards had escaped.

Lieutenant Maury farther remarked that the best fruit-bearing altitudes were not the same in dif-

ferent localities. They must depend on latitude, and, perhaps, other conditions, and should be determined by experiment.

[Most of the following minutes on "smut," in substance, were prepared for publication some six weeks ago, and (after approval by the Committee of Publication) were placed in the hands of a publisher, who carelessly suffered the manuscript to be destroyed. Anxious that the warning and instruction should be still made available for the ensuing seeding time, then already begun, the writer, after reaching home, on September 23d, had again to search out his authorities, and, without the aid of any fragment of the previous writing, to prepare what will here appear. This was all done in less than a day, and the second reference to the committee and the sending to the press, &c., will follow as soon as possible after the hasty writing. As I could not again see the individuals whose opinions are quoted, (except in a single case,) my frail memory may have caused some errors or omissions—though certainly not as to anything important or material. These circumstances only have induced the thus offering an apology, so foreign to my usage, for even such hasty and imperfect preparation.—E. R.]

Marlborough, Sept. 25, 1854.

Smut in Wheat and Remedies.—Danger of Brine as a Steep.

41. The disease of wheat called *smut* is a mystery, in respect to its origin or cause, and also the manner of prevention. Among the difficulties of treating the subject, some arise from the one disease, here understood, being called by different names, and also from the one name "smut" being applied to very different diseases of wheat. Hence, many old farmers do not yet know what is smut. The disease I refer to, if existing, is easily seen in the field when wheat is ripening. Most generally, but not universally, if one head of wheat is diseased, every head and grain from the same root is completely smutted. The heads appear dingy, and still darker when wet with rain. The skin of each grain is whole, and the grain full, but turgid and misshaped, and very dark. It is easily mashed between the fingers, and instead of white flour, the skin is filled and distended with a loose black dust, having a disagreeable odor, something like that of putrid salt fish. The smutted grains of wheat, or "smut-balls," when broken in the threshing of the wheat, spread the dust over the sound grains, and injure them for making flour, in proportion to the extent of the contamination.

Certain opinions in regard to this disease have long been generally received as true, and have been taught in numerous publications, and for many years, mostly without being denied or questioned by any opposer. Most of these doctrines, are generally correct. But to nearly all the general rules, there are sometimes found, in practice, remarkable and unaccountable exceptions; and which exceptions, no less than the general rules, it is very important should be known and understood. For the want of such knowledge, great losses in wheat crops occur every year.

The opinions referred to, and which have long

been held by intelligent farmers, and writers, are the following:

Smut is infectious by contagion. The smut dust being sprinkled upon grains of wheat, of a crop before entirely free from smut, will communicate the disease, and cause good and clean seed, so contaminated, to produce a smutted crop. Of course, when but a few smutted heads first appear on a farm previously exempt, the bursting of the smut-balls, and their defiling the otherwise good seed, will induce the disease to increase from year to year, unless clean seed be procured from abroad, or the foul seed be purified. The smut dust may be washed off, or its vitality destroyed, by various processes of washing, steeping or sprinkling. Among the salts most approved and recommended, for these purposes, are common salt, (muriate of soda,) Glauber's salt, (sulphate of soda,) and bluestone, (sulphate of copper.) The most common steep has been a saturated solution of common salt, (or brine,) and for many years it has been repeated in numerous publications, and rarely contradicted, that steeping wheat in this solution was a safe and effectual remedy.

The other opinions are generally correct. But steeping in brine, I maintain, is, without exception, injurious to the germination of the seed. Yet many have advised this steeping for as long as 24 hours; and many have so practised, and did not know the damage, for want of proper observation and comparison. The editor of the American Farmer for this month, (September, 1854,) repeats the recommendation of washing seed wheat in saturated brine, as part of the process to prevent smut. He further adds: "Besides, the soaking will tend to facilitate the earlier vegetation of the seed." This supposed benefit, and also the safety of brining seed wheat, will be contradicted by some of the observations to be stated below.

In 1836, I ascertained, by large practice and loss, that the steeping of wheat 12 hours was injurious, and (by experiment) still more so for 18 and 22 hours, which was still within the maximum of time recommended in books, or at least deemed safe. My then observations on that head were published in the Farmers' Register, (Vol. III., p. 692,) but they have not served to guard others against still greater and more recent losses. This year, Mr. William H. Harrison, of Amelia, who had brined his seed wheat, estimated his loss of crop thereby incurred at not less than 1000 bushels. This, and reports of other like losses, have induced me to offer here an abstract of the observations formerly published, and also some later experiments and facts on different branches of this general subject.

42. About 23 or 24 years ago, I first observed heads of smutted wheat sprinkled throughout my crop. The seed (part of that crop) for the next autumn's sowing, was washed first in fresh water and then steeped in saturated brine. The time of remaining in brine was not noted, and is not now remembered. But, then, supposing it altogether safe, it is probable that the times varied according to convenience. As no experiment or comparison was made, no damage to the germination was observed or suspected. The brined wheat was well dusted with quicklime, as usual. For want of lime, a few acres were sown with seed from the same bulk of slightly infected wheat. The crop was entirely clear of smut, (so far as observed,) and equally clear both from the few bushels of seed sown dry and unprepared, and that both brined and limed for the great body of the crop.

43. In 1835, smut having again appeared in the preceding crop, brining and liming was again resorted to with confidence, and without any suspicion of danger. I was further encouraged to steep longer, by learning previously from Mr. A. B. Spooner, near Petersburg, that he every year steeped his seed 18 hours in saturated brine, and did not fear extending the time to 24 hours. Mr. Spooner, on a small and highly manured farm, made very heavy crops of wheat. But probably he had not observed closely enough to detect any injury to germination; and heavy seeding on rich land might hide the actual loss of an eighth or more of the seed sown. My seed for the first week's sowing was steeped 18 hours. The wheat came up so thin, that (together with the confirmation of the experiments to follow) I was convinced of the danger and injury to germination, and subsequently avoided the hazard of long steeping. The result on the next crop, as to smut, was not noted, and I do not now remember it. But, as I did not lose any of my previous confidence in the brining as a preventive, I presume it was then of satisfactory effect.

44. *Experiments.*—The same seeding time, and on September 30th, the day on which seeding was begun, I took a handful of the seed wheat, and reserving half dry, the other half was put in a glass of saturated brine, and suffered to remain twenty-two hours; then taken out, drained, and while wet sprinkled with as much quicklime as would stick to the grains. One hundred of these grains were placed on wet cotton floating on half a pint of water in a glass—the water fresh and pure, except for the small remains of salt and lime adhering to the grains. Some hundreds of the dry grains (not steeped, or previously wetted,) were at the same time placed on like wet cotton floating in another glass. The remaining steeped seeds, and also the dry, were sown in two rows, side by side, and equally covered about an inch deep.

Results.—The earth was then unusually dry. Yet the seeds sown dry came up about twenty-four hours earlier than those which had been steeped. A like result ensued, and about as much difference in the times of first sprouting of the respective quantities of seed in the glasses.

As the sprouting was so evidently retarded by the steeping, the doubt arose whether the germinating power was not also weakened and damaged, and in many seeds destroyed. These imperfect experiments could not fully bear on this question, as to the sown seeds. As they had not been counted, the failures to sprout could not be known. Of the one hundred steeped seeds on floating cotton, new sprouts continued to show for sixteen days, after so placing the seeds, at which time nineteen still remained not sprouted. However, perhaps some of these seeds might have sprouted if observed longer—or that they were prevented from sprouting by being kept too wet. (A much surer and a perfect mode of trying the germination of seeds, is to place them on cotton cloth folded to four or more thicknesses, and covered by the like, placed on some open or pervious support, and all kept moist by pouring water on as often as needed. The superfluous water, dripping off, can do no harm.)

45. In 1845, there had been observed a very few heads of smut in my crop of wheat—which, according to my then views, made it necessary to again resort to the remedy then deemed effectual for its object, but dangerous to its germination. To lessen the risk, the wheat (after being first washed in fresh water,) was not permitted to re-

main longer in brine than to stir it thoroughly, and skim off the floating impurities, and then to steep while the operator limed and stirred and spread the last preceding washed wheat. The time of steeping rarely exceeded half an hour. Yet, in the growth of the crop, and by comparison with small portions not steeped (and sown dry) it was manifest that much of the steeped seed failed to come up. This damage was doubtless increased by the threshing of that crop having been done by a new (spiked cylinder) machine, which cracked an unusual great number of the grains. Many grains are cracked in all machines, though not perceptible to the eye. And I believe that in all such, the germ is killed by the penetrating brine.

46. *Experiments.*—The same seeding time (1845) of good wheat, a portion was put in a saturated solution of Glauber's salts and lime, stood 12 hours, then taken out and drained, and spread thin, and sprinkled with and stirred in quicklime—so remained, and still moist, 12 hours longer, but had dried in 6 more, (or 18 in all.) After remaining dry for 18 hours longer, 30 grains of this, A, were washed slightly in fresh water, and put on cotton cloth, kept moist, to sprout.

Of same wheat, kept 12 hours in a saturated solution of common salt and lime, B, then limed, &c., as above, and had barely dried in 36 hours, when washed, and 30 grains put to sprout on same cloth, and at same time with A.

Of same wheat, not steeped, and dry, C, moistened and put to sprout with A and B.

Results.—Of C, some germs had started in 12 hours, and in 48 hours, 24 grains of the 30 had put out radicles. Of B, the first sprouting was 6 hours later than of C, and 9 grains only had sprouted in 48 hours. Of A, no sprout was visible in 24 hours, and one only in 48 hours. The drying of the cloth and grains, by neglect, prevented longer observations. Of A, 100 grains were also carefully planted, and not one came up.

47. Seven bushels of seed had been saved from the rear (or feeding place) of the machine, shattered out without passing through the machine. This had been saved separately, as of the most perfect grain. But, without design, the sowing of this seed showed the much greater damage sustained by other seed being cracked by the machine, and then killed by steeping. This "drum" wheat was brined (say steeped about half an hour,) and limed precisely like the seed sown on both sides, and at the same rate. Yet, after the plants were well up, the ground sown with the 7 bushels was so much more thickly covered, that the difference and the outlines could be distinguished at some hundreds of yards distance, and in any direction. As the sowing of all was done in the same day, continuously, by the same seedsman, it is very improbable that there could have been any perceptible difference in the rate of sowing. The "drum" wheat, like all other steeped in brine, was doubtless retarded in germination; but none being cracked, none had the germs killed, as in the threshed wheat.

Though still deeming the brining of seed an effectual remedy, (generally) against smut, it was thenceforward also deemed too injurious to be used. At a later time, I tried two other remedies. In England, it is believed that the keeping of seed a year will destroy the vitality of the smut, so that the most smutty seed may then be sown safely. I tried this with 30 bushels of seed kept from the previous year's seeding, and which, like the new seed, had a very little smut. The product of the

old seed was obviously cleaner than that of the new, (alike slightly smutted) but still was not entirely free from smut.

48. The next year I tried the intermixing of dry lime, just slaked, with the seed wheat, as soon as it was threshed and fanned. About a cask of stone lime (3 bushels) was used to the 100 bushels of seed. This process had been before used by some of the farmers in Prince George and Charles City counties, and supposed a good preventive against smut, and it was certainly safe. This plan also seemed to lessen the proportion of smut, compared to the previous crop, but did not remove all.

This keeping of seed wheat with dry quicklime thoroughly intermixed, is beneficial in several respects, besides so far as it may guard against smut. The wheat so treated is almost safe from being stolen, and is much less injured by rats and other vermin. The grain is discolored and would be damaged for grinding. The germinating power is certainly unimpaired. Of 100 grains of seed, which had remained in lime for 14 months, tried in moistened cloth for trial, 96 sprouted. The wheat, thus treated, increases in bulk about 5 or 6 per cent. after fanning off the loose lime.

49. *Experiment.*—For the next year's seeding, (1852,) I had left 84 bushels of old seed, which had remained in lime for 14 months. In all the portion of the next crop produced from this seed, I could not find a head of smutted wheat, though observing closely through the reaping. The remainder of the crop, sown with new seed, and also put in dry lime, showed some little smut throughout. From this last trial of keeping seed a year, and in lime, and the entire exemption of the product from smut, I thought a safe and sure remedy was found. All my seed for the next sowing was of this kind. But the crop of 1854 did not show the exemption so marked in the preceding year. There was, indeed, very little smut, but enough to show that both these means combined did not make a complete preventive. Lest I should be misunderstood, I will add that, though not finding any remedy certain and complete, I have never yet had enough smut in any crop of wheat to cause material loss, or to make it an objection to the sale of the crop. But my main object, in the foregoing minutes, on smut, has not been so much to discuss the efficacy of any remedies, as to indicate the danger of the one most generally approved and in use.

Messrs. John A. Selden and Hill Carter, both concur in deeming all modes of steeping or washing seed wheat in brine to be injurious. Each of them uses (when necessary) a different mode for preventing smut, and each confides in his method as being effectual, or as having been so to this time. They are as follows:

50. Mr. John A. Selden, has long been satisfied of great injury being caused by steeping seed wheat in brine, and has avoided all use of brine for that purpose. He has seen two seedings of large crops, so much injured in germination, that there was no mistaking the cause, or the operation. In one of these cases, very little of the seed sown germinated. He does not know how long, in that case, the seed remained in the brine. He entirely believes in smut being contagious, and that merely washing in fresh water, and then dusting the wet seed with dry caustic lime will prevent smut, even when the seed was greatly mixed with smut. He washes the seed, if smutty, in three waters, then spreads it thin on the barn floor, sifts over and stirs among the wheat enough lime to slightly coat over every

grain, (as usually done after steeping or washing in brine.) On one occasion, he treated in this manner some seed wheat which he bought, which was a beautiful sample of grain, but greatly mixed with smut—so much so, as to be offensive to the smell. The crop from the washed seed had no smut.

51. Mr. Hill Carter, also, and for like reasons, objects to all use of brine. For prevention of smut, he puts the seed in whitewash, made by putting unslaked quicklime in water, and having the mixture thin enough for the light grains and impurities to float and be skimmed off, when stirring the seed under the fluid; as soon as this has been done sufficiently, the wheat is dipped out and drained in baskets, and then spread to dry. Enough slaked quicklime is sprinkled over to separate the grains, and render them dry enough for convenient sowing. The same whitewash is used twice, or sometimes thrice; but when it is deemed too foul, the remnant is thrown away. The heat produced by slaking the lime is not hurtful to the seed, if much below the boiling degree. The effect of this whitewash steep is always to discolor the grain, and sometimes the skin can easily be slipped off by pressing the wet grain between the finger and thumb, without the germination being affected. The wheat is allowed to remain no longer in the steep than to wash and stir and cleanse it well. This preventive is deemed by Mr. C. as both effectual and safe.

52. Judge Thomas Ruffin, of Allamance, North Carolina, has used the solution of bluestone for smutted seed wheat and always found the product perfectly free of the disease. From his practice and experience, he had entire confidence in this preventive remedy.

53. Col. Williamson Simmons of Prince George county, Virginia, has used saturated brine for all his seed wheat, and afterwards dusting with quicklime (the most generally used preventive) for eight or ten years; has found it effectual against smut, and had not suspected any loss in or injury to the seed wheat. His washing was always of short time. He had never made any comparative trials of the sprouting.

The last two minutes, of cases of entire success, and confidence in the use of these different washes or steeps, might be multiplied to any number. These cases happened to be the last stated to me—and they will serve as examples of the more extended opinions of numerous intelligent farmers. On the other side, as examples of remarkable exceptions to these general rules of entire preventive effect, I will add the following cases, which, more fully reported, have just appeared in the last number of the Southern Planter:

54. Col. Edmund Fontaine, of Hanover, used the strong solution of bluestone, as a steep, for 12 to 16 hours, and in the usual and approved manner, and with all due care, for his seed wheat, of a previous smutty crop, and for his several farms. The wheat came up well. The crops produced from this seed had about as much smut as those from which the seed had been taken.

For experiment, a small portion of the same seed had been mixed with a large quantity of smut balls and dust, before separated in fanning, the mixture rubbed together well by the hand, and then this foul sample sown separately for observation. The product had about as much smut as that from the steeped seed. For the next autumn's seeding, (1853,) he used the seed of his crops having some smut (as stated above) without any preparation. When writing his communication, August 3d, he

had heard, particularly, from only one of his farms, where the threshing was then nearly finished, and the overseer reported that he had found no smut in the crop.

55. The other case of exception, referred to, is that of Dr. Thomas Meaux, of Amelia, whose very striking facts cannot be more concisely quoted than in his own words, (Southern Planter, September, 1854.) He says: "After fifteen years of what was considered the successful use of brining and liming seed wheat, in preventing smut, I published the fact in the Planter. Two consecutive years now satisfy me the conclusion arrived at was fallacious, and I retract the opinion. On the contrary, I have heard of three well authenticated cases of much injury being done to the vegetative power of the seed by the process."

56. From all my experience and information on this mysterious disease, and its remedies, I draw the following inferences:

That smut is infectious, and usually may be communicated by contagion of smut to other pure wheat:

That smut also originates where none had existed before, from sources or causes as yet unknown:

That all the usual remedies of washing or steeping, (and perhaps dry liming,) are generally effectual in guarding against smut occurring to any considerable extent; but that no one is always and completely a preventive:

That brining seed wheat is always injurious to the germinating power—and destructive as to all cracked grains.

With much less confidence, and indeed much doubt, I offer the following supposed reason for the apparent contradictory operations of the different preventive remedies for smut, viz: That the disease already produced, and the smut dust already in contact with sound grains of wheat, are certainly and always removed and destroyed by the usual washings and cleanings of the grain, or the vitality of existing smut is destroyed by contact of caustic lime. But any such remedy, however effectual and complete, cannot prevent the *new originating* of smut in the next growing crop, from the unknown sources or causes, whether these be in the peculiar condition of the soil, or the seed, or the atmosphere, or any thing else unknown serving in any other case to originate this disease where it had not been before.

Softening or Disintegrating Stony or Hard Calcareous Matters and Bones, by the Fermentation of Putrescent Manure.

57. Dr. William S. Morton, of Cumberland, first made known to the public, through the first number of the Farmers' Register, the existence of what he then supposed to be marl of peculiar character, on the farm of his then residence in Prince Edward county. The earth in question, though not marl in any of the many senses in which that term has been used, was indeed a bed, of very limited thickness, containing scattered nodules of stony hardness, and which contained 70 or 80 per cent. of carbonate of lime. I have since seen the like formation in various other places both in Virginia and in South Carolina. The lumps are manifestly the result of the slow deposition (by evaporation) of rain water, which after having dissolved lime nearer the surface, had sunk as low as the earth permitted percolation, and had there deposited the dissolved lime.

These lumps, though so rich in lime, were to

few to be worth digging and collecting, and also so extremely hard as to be almost worthless as manure, unless burnt, or otherwise reduced to powder. Accidentally, a small quantity of these collected nodules had been left by Dr. Morton in a pile in his stock yard where the winter's manure was to be made. After its ordinary and partial fermentation, it was removed in the spring; and the calcareous lumps had then become so reduced that if they had not been known, and searched for, they would not have been discovered or observed.

58. This fact, very recently stated by Dr. M. brought to my recollection another like fact which I read long ago in the old Edinburgh Farmers' Magazine—of a pile of hard shells being accidentally covered by a heap of fermenting manure, and being thereby so softened and reduced as to be suitable for manuring.

59. But the same operation of strongly fermenting manure it seems may be brought to bear effectively on the important and difficult subject of bones. An anonymous but intelligent writer, in the New England Farmer, reports the following experiment of his neighbor Mr. Edward Willis, near Marshfield, Massachusetts: "Taking a quantity of bones, none of them perhaps larger, and most of them smaller than a man's two fists, he made a good layer of fresh horse-manure, on which he placed a layer of bones, then another layer of manure, then a layer of bones, and so on to the top, covering the heap over well with the manure. It lay somewhat longer than he intended, and was allowed to become somewhat fire-fanged. But the bones were utterly decomposed, disintegrated and dissolved—so that the whole heap had become a homogeneous mass, and you could not even detect any bones in it." Now if this statement is true, (which I have no reason to doubt,) it was by the aid of the process of hot fermentation that the bones were so completely dissolved. I know that they are not sensibly affected (in my own practice of burying dead animals in manure,) when there is no heat of fermentation. The disintegrating effect, above stated, was not promoted by the manure being allowed to "fire-fang"—but, if not completed before, would have been checked by "fire-fanging." This effect is caused by want of enough moisture; and when fully produced, the fermentation is stopped, as well as the manure being much damaged. Proper watering of the heap would have prevented dryness and this damage, and would have maintained fermentation longer and more equably, and been better in all respects.—E. R.

Green Corn as Forage.

60. Mr. Edmund J. Plowden, of St. Mary's, Maryland, in a visit to Cuba last year, found that Indian corn, sown broad-cast, or planted so thickly as not to form ears, and the plants cut off when well in tassel, and later, made the chief and usually the sole food of horses, mules, and other animals, and of those at work, and when travelling, as well as when standing. This provender, green and newly cut, was brought to Havana, on the backs of pack-mules, (no wheel carriages being in use for transportation from or on the plantations,) and also was used as food generally in the country, so far as he travelled, and observed, or learned by his inquiries. He heard of horses and mules, travelling far and well on this provender alone.

The Facts, and Causes, of Injury to Animals from Eating Peas.

61. [It is a prevalent though disputed opinion in

the Southern States, and held by many experienced planters, that the feeding of hogs and other live stock on pea-fields, is frequently and generally, though at uncertain times, injurious and sometimes fatal to the feeding stock. In particular, as to hogs—though the general practice of beginning the fattening of those for slaughter on the pea-fields is free from all danger, and greatly beneficial, yet it is believed that if the store (or stock) hogs feed in like manner, they will generally be diseased, (with worms or otherwise,) in the course of the following year, and will be in general bad condition, even if not actually dying from the consequences of the feeding on the pea-field the previous winter. It is my purpose to collect facts or opinions bearing on this question, from experienced and judicious observers.—E. R.]

62. Mr. James C. Johnston, of Edenton, North Carolina, in former time has had cattle to die, and hogs to become diseased, from grazing in his pea-fields. There was then no care used to avoid such ill effects, and the grazing was continued through the whole winter, for the hogs to glean all the peas, and the cattle to eat the dry remains of pea-vines and the corn-shucks. The damage to cattle was by their being gorged with peas, and this food swelling in their stomachs. Latterly, cattle have never been turned into a pea-field when with empty stomachs, and eager for food—and with that precaution only, no cattle have suffered, from (in other respects) unlimited access to the pea-fields.

The damage to hogs was different. They thrive well and fatten fast, and suffer no damage, for some weeks (say 4, or 5 at most,) on a pea-field. But if continued longer, they are apt to become diseased, and as believed, by having worms in the kidneys. He has in latter years effectually guarded against such and all damage, by removing the hogs, after 4 or 5 weeks—when they are nearly fattened on the peas—and finishing the fattening with corn, of those designed for slaughter that season. He does not put sows having young pigs on the pea-field at all—having observed that when removed (for safety) afterwards to their usual woods range, they dwindled and got in bad condition.

63. Mr. F. Nixon, of Perquimons, agrees with the views of Mr. Johnston. He also (in deference to common opinion) has feared damage to his sows and pigs, and tried to prevent their getting on the pea-fields. But sometimes they could not be kept out, and have fed on the pea-field until in winter, and, as long as there remained enough food. No damage to them ensued. Ascribes the injury produced to the hogs getting fat on peas, and then being put on a comparatively stinted allowance of food. He formerly had his live-stock, when grazing on peas, to be sick, and die in some cases. But for the last 10 years, has had no such loss, or material injury. After a dry time, and then rain, the dry remains of vines are thereby made more tender and palatable, cows eat greedily, and are apt to have colic.

64. Mr. Whitmill Hill, of Halifax county, North Carolina, concurs in the foregoing opinions. He keeps ashes in water for his hogs in the pea-field—and restricts their remaining to 5 or 6 weeks—but always gives a little corn every day, which change of food he deems important to their safety. Has lost as few as on any other feeding. He grinds peas and feeds the meal to milk cows in winter. They become fat, (and do not therefore give less, but the more milk,) but when put on common scant food, they pined and continued to decline until all

died. This occurred for three years. Since, he has continued the fattening of cows so fed (if not already quite fat,) and killed them for beef.

Mr. H. is sure of the "clay" and the yellow "cow" pea being different kinds—though generally supposed to be the same—and he deems that the "clay" pea is safe, and (as is generally believed) the "cow" pea more dangerous for stock, than any other known pea. When hungry cattle eat plentifully of the cow pea, especially, and then drink, the peas swell, and the animals suffer with colic, or die.

65. Mr. Nixon says it is a prevailing opinion that the peas on certain spaces of land, are much more likely to cause disease or death to cattle, than other lands—and without any cause being suspected. He thinks that the peas of a particular field of his own farm were more dangerous to cattle than of any other part of his land. Peas are more likely to be hurtful to cattle when the plants are first killed by frost.

66. Mr. — Hanson, of Sumter county, Florida, thinks that in his country (where peas are extensively grown, and fed upon by stock,) no danger or damage occurs to hogs or cattle on pea-fields, provided the animals are never turned in when hungry. His land, hammock, lies high generally, and does not need draining.

67. Mr. James Ruffin, formerly of Marengo, Alabama, planted on the highly calcareous and rich black land of that county. Both his hogs and cattle, grazing on peas, died to such extent, that he ceased such grazing entirely, and even to plant peas, (as he supposed they could not be safely used there for stock,) for ten years before he left that country. It was the general understanding, there, that the grazing of peas on the calcareous (or prairie and cane-brake) lands, was always dangerous, and often fatal to cattle and hogs, while on the sandy [and non-calcareous] soils there was no danger or injury to stock.

68. Mr. Thomas M. Johnston, of Greene, Alabama, cultivates on the black cane-brake and calcareous land of that region. Peas do not there produce as well in seed as on the sandy soils. Some 15 years ago, he first began to plant largely, and of a reddish pea, there called "Tory," and grazed after corn was removed. Late in winter, and when the pea provender was comparatively scanty, some of the cattle died, and as he supposed from feeding on the pea crop. The others, which did not die, did not seem to be in any way hurt by the like feeding. The hogs, also grazing, were not known to have received any damage. The injury to the cattle caused the pea-culture to be then suspended. Some length of time after, he heard stated what his informant believed to be sure means for avoiding all injury to stock, which consisted in fully feeding every animal before its being turned at any time on a pea-field. Thus encouraged, he again (three years ago,) planted peas largely, a black kind. In January the stock began again to die, and he lost soon after, and as supposed entirely from this cause, and with all the precaution advised, 42 store hogs, and 22 head of cattle. Fearing injury, he did not let the hogs for slaughter go on the peas at all. None of the others died until in January. Since then, he has raised peas only as food for his negroes—and on the remains of such small quantities, his stock have not received any injury. He has abandoned pea-raising for feeding stock, deeming it, for him, altogether unsafe.

69. Mr. Jas. W. Cotton, of Halifax, N. Carolina,

cultivates light (or sandy) land. Some years ago, but for one year only, raised the cow-pea, which is tender, and soon rots after rain. The hogs for slaughter had been before panned, and well fed (on corn) and were nearly fat, when turned upon the pea-field. After 10 or 12 days only, and in December, the hogs were declining. On examination, the peas in the field were found to be generally rotting, or already rotted. The hogs were immediately removed, and panned as before, and again fed abundantly on corn. Nevertheless, they continued to decline for some time longer, before recovering their lost flesh and health, which all did afterwards, to some extent, but not fully. He next planted a black pea, of which the grain or seeds produced were remarkably hard, and would not rot throughout all winter, or by remaining wet. The stock did not like these peas, and ate of them with apparently little relish—but were kept on the food through all winter, and until nearly all the peas were eaten. No loss, or sickness, of either hogs or cattle occurred. Still, this black pea, though found safe, was very unproductive in seed, and was abandoned as soon as a preferable kind was obtained. This was the "clay" pea—and which though in appearance it is much like the tender and easily rotting cow (or buff) pea, is a very different kind in other respects. The clay pea is of a paler yellow (or buff) color than the cow pea. The "clay" was rather later than either the "cow" or the "Bass" pea—but has been since forwarded by his saving seed every year from the earliest ripened pods. It is a good vine-bearer, and usually the most productive of seed known. On a field of 200 acres of corn and peas of this kind, after gathering the corn, he turned in (December) 100 hogs to be fattened for slaughter, and all his cattle and mules. No care or safeguard used, except to have enough water for the stock, and several accessible and good watering places. As usual when on peas, the fattening hogs had also a little corn every day, and were often salted. When fully fat, and removed and killed, the remaining store hogs, about 150, were first turned upon the field, and remained until March, when the land was ploughed and sown in oats. At that time, the ground was still covered with sound peas, much more in quantity than enough for seeding the land. The store hogs were then fat—and after being then removed, no dwindling or marks of disease were found. But he always feeds his store hogs every day with corn, (except when on the pea-field,) and thus maintains their good condition.

Mr. Cotton had heard of both hogs and cattle dying, and in large proportion of the whole number, by feeding on a field of black-eye peas—a white and very tender kind, which rots easily and quickly.

He had heard that hogs were especially liable to disease (of the kidneys,) when feeding on a pea-field in wet weather, and were safe in dry weather. After an uncommonly dry feeding time, when slaughtering his hogs, then fat, and apparently healthy and in best condition, he directed the particular negroes who gutted the carcasses to examine the kidneys of all. In every case, they were found to be inflamed, and generally wormy. Hogs, thus affected, if not killed, but kept through another year, as store hogs, he thinks would have become more diseased. At another time of killing, after a remarkably wet December, while the hogs were on the pea-field, none of their kidneys were found diseased.

. Cotton is decidedly of opinion that it is the eating of peas that is the most general cause of their being injurious to animals feeding on them. He also thinks that animals are killed in some cases by eating voraciously of sound peas, and then drinking, and the peas swelling greatly in the stomach, and so causing great pain, and often death. He knew of a horse, when hungry, breaking into a field of black-eye (white) peas, when ripe and dry, and quite sound. After eating as much as he chose, the horse went to drink, and died before he left the water's edge many yards. The white or other tender peas, the most liable to rot when exposed, also swell the most in the stomach. Neither green (unripe) peas of this kind, nor dry and sound peas of the hard kinds, (not easy to rot,) if eaten as ravenously, would have killed any animal.

70. Mr. Thomas P. Devereux, of Halifax, North Carolina, raises peas very largely, both among corn, and also separately, and also, after reserving an abundant supply of pork, (at least 200 lbs. for every worker, man, woman and child, and his family supply,) sells a large surplus. His whole stock of hogs are turned on the pea-fields, and no damage found, or apprehended. He thinks that if hogs, after getting fat, on any kind of food, are stinted, or suffered to become poor, or are declining in condition, they will be very apt to die; but not the more so because of having been fattened on peas. Also, if the peas are altogether of a tender kind, and they rot—or if sprouting in a warm spell in winter, and then the sprouts are killed by cold—in either case they are injurious to hogs who feed thereon. But even this danger is not incurred, if there are plenty of sound and unsprouted peas. For hogs exhibit, in a remarkable degree, discrimination and preference in the selection of their food. If they have in the same field, for example, Bass and cow-peas, (the latter grain very tender and liable to rot, and the former the reverse—) they will not touch the Bass-peas as long as the cow-peas are sound and in plenty. Also, they will not eat either of the green or of sprouted or rotten peas, though of a preferred kind, if they can find enough of other dry and sound peas. Acting on the rule of never letting fat hogs become poorer, he slaughters every one, even if less than half grown, that is fat by Christmas. The remaining sows and pigs, &c., continue on the pea-field until in March, if the peas remain in plenty, which is always the case after a good bearing year. Wherever there are many hogs kept, of course it may be expected that some will be diseased, and some will die. But Mr. D. thinks that his losses by death have not been greater from the hogs being fed on peas to such great extent as in his usual practice. He has not put other kinds of stock on peas.

71. Mr. — Ellerbe, of Darlington District, S. Carolina, says that in that part of the country it is the general opinion, and scarcely questioned by any, that it is dangerous for store hogs (those not designed to be killed as soon as fat,) to be fed on the pea-field—as they will be liable to become diseased, and many will die, during the following year. Similar results are found in the year succeeding an autumn when acorns, &c., have been very plentiful, and the hogs have become fat in their woods range, though not turned on peas. [This fact, or opinion, was also stated by others.] The cow-pea is the kind almost universally raised in Darlington—which is easy to rot in wet weather. The hogs designed for slaughter only are put on the field, after the corn has been gathered. No care or restriction

is used as to the hogs eating the peas, while remaining thereon, except that they are supplied with plenty of ashes, in which some salt is intermixed, and which they eat freely. When nearly fat enough, the hogs are fed on corn, to “harden the fat” until ready for slaughter.

[However much difference of opinion and of conclusions may appear in the several views expressed in the foregoing minutes, as to the injurious effects of stock feeding on pea-fields, it seems to me that there is enough of general agreement on main points to reconcile these differences, and to enable us to avoid the evils which many persons have suffered under so heavily. The inferences which may be safely drawn from all the foregoing testimony, seem to me to be as follows:

1st. That rotten peas and pea-vines are always dangerous as food, and frequently and quickly fatal to the animals eating them in quantity.

2d. That sound peas, alone, are not hurtful immediately in any case—unless swallowed in large quantity by very hungry animals, and then by swelling in the stomach.

3d. That the seemingly contradictory facts experienced, and also the opinions that certain kinds of peas—and also any kinds grown on certain localities—are highly dangerous—while other kinds of peas, and the growths of other places, are safe, or much less dangerous—are to be explained and reconciled by the facts that certain kinds of peas are much more liable to rot or sprout in wet weather—and also that all growths of calcareous, close, and rich or wet soils, are more liable to rot than those of non-calcareous, sandy and dry soils.

4th. That though sound peas, when not voraciously eaten, are not speedily injurious, the greater weight of testimony makes the exclusive and full feeding on peas to be injurious to hogs and cattle at later times. Even this danger of future disease would seem avoidable by using other food besides peas, or by not permitting the animals to be more stinted in food afterwards, and to become poorer.—E. R.]

Peas and Sweet Potatoes for Fattening Hogs.

72. Mr. Nathan Winslow, of Perquimons county, fattens his hogs for slaughter and sale, as well as for his own consumption, almost entirely on peas and sweet potatoes. From the 1st to 15th of September, the hogs are turned on a pea-field. At the same time, a small portion of the sweet potato ground is fenced off. The wood-land is close at hand, and the hogs are turned therein every day. This is done, because he deems it better for the health of the hogs. Every night, alternately the hogs are turned into the pea-field and the potatoes—new portions of the latter being brought in as the first enclosed are exhausted. Thus kept on peas and potatoes alone (for he supposes they get very little from the woods,) the hogs become very fat. For change of food, and late in the fattening, swill is added to the food, made of turnips, boiled with a little corn-meal and seasoned with salt. Mr. Winslow is confident that all the corn consumed during the whole time of fattening does not exceed

the average of a peck for each hog. Therefore the fattening is due in very slight degree to corn, and almost entirely to the peas and potatoes. Peas alone will fatten very considerably, but not enough to make good pork. But with potatoes, the hogs are not only made very fat, but their fat is even more firm and white than of hogs fattened on corn. After cold weather requires that potatoes should be dug, they are boiled before being fed to the hogs. Mr. Winslow is a very large and successful raiser of hogs, and seller of pork. I learn from others that his pork, fattened as above stated, is deemed the best in the markets.

Pea-Culture for Manuring.

73. Twelve to fifteen years ago, Judge Thomas Ruffin, of Allamance, North Carolina, gave up an enclosed lot of 14 acres, of very poor and exhausted land to the following culture: The land was ploughed every spring, usually in May, and peas planted in 3 feet rows and about 15 to 18 inches apart—12 to 15 seed dropped at each place. Two slight ploughings were subsequently given, soon after the last of which the vines crossed and covered the intervals, so that no further tillage was needed, or practicable. One slight hand-hoeing was given early, to chop out the strong weeds between the stations. The whole tillage very slight and cheap. When from half to two-thirds of the pods were ripe (or dry,) the hogs designed for slaughter that season only were put into the lot, (usually 80 to 100) and remained until they had eaten all the peas. They eat but little of either the vines and leaves, or of the pea-hulls. Sometimes a little grazing of beef cattle only occurred in addition to the hogs. All remained in the lot during the whole time of their grazing on it, night and day, and no other food given—except sometimes a cart load of pumpkins or turnips were given, once or twice a week, and this of course not until late, or after frost. For 5 successive years, and about the middle of the whole term, the continued pea culture was varied by 3 crops of oats being sown, in years alternating with others of pea-culture, making a crop of peas and of oats in alternate years. The oats, when in milk, had the hogs turned on, and as much of the crop eaten as the hogs would consume—and also of the second growth of young plants, from the wasted seeds germinating. This substitution of oats was deemed less valuable than the peas, and so was abandoned, and the general course resumed. No other manure, or aid, has been given to the land in this whole time. No products have been (or could have been) measured. But Judge R. is sure that the land could not have produced more than 5 bushels of corn to the acre when his course was begun, and that it would now bring three times as much, or 15 bushels. This is still a poor rate of product—and much less of improvement than usually obtained from pea-manuring. But in this case, all the product of seed or grain of every year's growth, has been consumed, (except the few pumpkins or turnips,) and no return, other than the excrements of the fattening animals. The hilly surface of the land permitting washing, with all the care to prevent, has also retarded the progress of improvement.

Repeated Applications of Guano Losing Effect.—Rapid Disappearance of Animal Manure.

74. Mr. Edmund J. Plowden, of St. Mary's county, Md., cultivates, near the mouth of the Wicomico river, emptying in the Potomac, oppo-

site Westmoreland, Va. The land in question had been limed in 1840, with 150 bushels of slacked lime to the acre; the lime burnt of shells of the "Indian banks," which, from admixtures of bones, &c., contains about two per cent. of phosphate of lime, the land red, not originally fertile, bore pine partly at first, and had been under a second growth of pine previous to the second clearing. Following a crop of corn, in 1844, the same autumn Peruvian guano had been ploughed under for wheat, 200 pounds to the acre. The crop good, and the benefit from guano satisfactory. It being necessary to make a change of the fields, or of the cropping, the same land (in wheat stubble) was again ploughed for and sown in wheat, with 200 pounds of Patagonian guano ploughed under. The effects good, and the crop of wheat satisfactory. The land had been sown in clover, and produced a very good growth, and remained under that crop the succeeding year, (as usual,) was grazed, but partially, after May 10th, and ploughed under in August for wheat, for which (wheat or clover fallow,) there was ploughed under a third application of 150 pounds of Peruvian guano. Fair or moderate product of wheat, not so good as before, and the clover succeeding inferior, though a good clover season. After one year of clover, corn, a tolerable crop. No wheat followed the corn that autumn; but next year the land was ploughed for wheat, (a usual practice, and good for destroying blue-grass, and called "corn-stubble fallow,") and 150 pounds of guano applied. The crop of wheat (1852) was very inferior to every one of the former crops, and inferior, as he thinks, to what would have been the crop if no guano had ever been used. The clover following was a very scanty sprinkling of plants, and these of very poor growth. The weeds which have possession of the ground are such as belong to poor land. All the guano used in this series of years, (700 pounds in all to the acre,) was bought of the importers, and each lot believed to be good of its kind.

With the above first two, or, perhaps, three applications of guano, there was intermixed and sown half a bushel of gypsum to the acre; but not approving the addition, the gypsum was afterwards omitted.

75. Mr. Plowden further states that his countyman, Dr. Robert Neale, (an intelligent, observant and scientific farmer,) used on a piece of land—for corn—250 pounds of guano, ploughed under broadcast, and 200 pounds more in the drills, on same space, (450 pounds in all.) The corn stood very thick—the season was plenty wet—and the product very heavy. Mr. P. saw the crop standing, and it was supposed to be equal to 90 or 100 bushels to the acre. Next year the same land was prepared for tobacco, with another application of 250 to 300 lbs. of guano, ploughed under broadcast. From the time the tobacco plants were set out, they continued stunted, and scarcely grew at all, and produced scarcely any crop. On a part of the same, manured from the farm yard, (on the guano for the previous corn crop only,) there was made a very fine crop of tobacco. This land of Dr. Neale is part of a section of country on which guano has been found to be peculiarly efficacious.

76. Another case of remarkable and rapid disappearance of the most abundant and rich animal manure had occurred in Mr. Plowden's personal experience. Formerly, when he was a very young and inexperienced farmer, and also owning a large herring fishery, he applied an immense quantity of

fish offal to a quarter of an acre of neighboring poor land, with the intention of making it a rich lot of timothy grass. 20,000 spoilt herrings were applied, and much of other fish offal, so as to cover the surface entirely. It was ploughed under, and the land tilled in corn. The crop was from 70 to 80 bushels to the acre. The land was next sown in timothy—but the product was so remarkably poor, that it was ploughed up the next year and corn again planted. The product of corn was not less remarkably small, as if no manure had recently or ever been applied.

77. Mr. F. Nixon of Perquimons, N. C., also formerly owning one of the large fisheries on Albemarle Sound, had, for ten years successively, manured land (before poor and rather sandy,) and to considerable extent with the garbage of the millions of herrings caught and "trimmed" for salting. There was so much of this richest of manures, that the proprietors could not use it all in proper or economical manner, and, therefore, it was applied in very great quantities. A deep furrow was run by the plough, along side of each row of the young corn, and the heads and other trimmings of five herrings were dropped opposite each corn hill, and covered deeply. The growth of corn was from 35 to 40 bushels to the acre. The like manuring was given every spring, and a corn crop grown. Peas, as usual, were planted and grown among the corn—but these were consumed, by grazing animals, after the gathering of the corn. After ten years of rich animal manuring and cropping, the manuring was suspended and the same cropping continued. The before increased product ceased with the manuring, and the land returned immediately to its former very small amount of production.

Per Contra.—Good Effects of Repeated Dressings of Guano.

78. Mr. W. M. Ambler of Louisa county, on his farm on South Anna River, in 1849, applied 240 lbs. of guano per acre to 8 acres of very poor and greatly washed and galled land. It was sown in wheat, and brought about 10 bushels to the acre, the exact measured product being a small portion over or under that quantity. This was deemed a good and profitable effect, as the land would have scarcely brought wheat at all, without the guano. Clover seed had been sown, and a moderate crop grew—as much as could be expected on other land yielding 10 bushels of wheat. Next year the land was in corn, after 100 to 120 lbs. of guano added, and brought a crop satisfactory from the manure used, but the product not measured separately. (A light cover of wheat straw had been ploughed under, preceding the corn.) The ground sown the same autumn (after the corn) in wheat, on 300 lbs. more of guano. The product was supposed, by estimate, to be 17 bushels to the acre. 650 lbs. of guano, in all, applied, from 1849 to 1852. The clover was grazed, and seemed a moderate crop.

In all other cases of repeated or excessive applications, in Mr. Ambler's experience, and observation in his neighborhood, there has been no diminution of effect in the last, compared to the early applications. The locality is about thirty miles above the eastern visible granite. Lime has been repeatedly tried on his farm, and in various ways, and has produced no effects.

Destruction of Sassafras Bushes.

9. Judge Thos. Ruffin of Allemanee, N. C., has

found that *close and continued* browsing by sheep and cattle on the young and tender leaves and shoots of sassafras bushes, for two years, will kill them, root and branch—at least on his land and in his neighborhood. (Red soil, stiff, but pervious to water, of good original fertility, with undulating or hilly surface.) If the bushes are too tall for their tops to be reached by the stock, they should be partly cut and broken down, but not cut off or grubbed up. If the ground set with sassafras is turned out of culture, and left unenclosed, and exposed to the ranging cattle of all the neighborhood, the bushes will die in two years; and as soon if in enclosed pasture land, if in like manner the young leaves and shoots are continually removed by grazing stock. All grazing stock, except hogs, are very fond of browsing on sassafras.

80. Since entering the foregoing minute, I have been assured of the like destructive results of close grazing of sassafras bushes, by Messrs. Robert Bridgers of Edgecombe, and Nathan Winslow of Perquimons. The latter was confident that on the close of the third year of grazing, there would not be a sassafras bush or its roots left alive.

81. Mr. W. Mazyck Porcher of Charleston District, S. C., remembers parts of his farm (near the Santee,) which, after having been previously long under cotton culture every year in succession, (which necessarily involved the repeated cutting off of every shoot of sassafras, as of every other weed,) were "turned out," and exposed immediately thereafter to the close grazing of cattle and of sheep also, for full ten years. Then the ground was again put under cotton-culture; and the sassafras sprouts came up and stood as thickly over the ground as ever. The grazing, though seeming in some measure to keep down the growth had not killed it, even above ground, nor lessened the vitality of the roots.

[Remarks by E. R.—In my own practice, and from observations continued for 40 years, I have had full evidence that the growth of sassafras bushes can neither be destroyed, nor permanently diminished, by deep grubbing and all the weeding and tillage processes required in any ordinary rotation. The cessation of grubbing and chopping for even two months of the growing season, serves to give to every root and shoot a renewal of the term of life; and the cessation for a whole year converts the ground infested with this growth to a thicket of large shrubs. The number of shoots increase under the best tillage and grubbing. The cause is in the peculiar manner of growth. The main roots of sassafras run horizontally in great numbers, and to great distances, forming a network at the depth of ten inches or more under the surface of the ground. From these horizontal roots spring up numerous perpendicular shoots above ground. Any grubbing that does not reach the deep horizontal root, though of the smallest bush, merely cuts through what appears to be its tap root, but which, supplied from the large horizontal root below, rapidly throws out new shoots. It would require very deep and unusual grubbing to cut the horizontal root; and if doing so, at great labor, new shoots immediately put out from both

of the severed ends. No other ordinary tillage process can reach these roots. Of course, the destruction of sassafras bushes, by grubbing, is impossible. But the laws of vegetation would teach, what has been observed in practice, as above stated, that the continued removal of the leaves in their very early growth, must finally kill the entire plant, root and branch.

My own farm furnishes a case approaching in success, as to time, to the above, and as complete in effect—and another case of apparent failure. The first is of land surrounding the mansion, formerly cultivated regularly, and a part of it then thickly set with small sassafras bushes. About five years ago, the land was made a standing pasture, and has since been constantly grazed, generally by sheep, and always by a few cattle. The grazing has not been close. The sassafras bushes were first cut off by a scythe, and since have been chopped off, at the ground once, or perhaps twice. On examining the ground since receiving the above information, (Sept. 25th,) not a trace of a sassafras is to be found—nor even a dead stem remaining.

Another adjoining field, kept as long as pasture, has numerous small sassafras bushels still living. But this has not been continuously grazed except by hogs—very rarely, and for short times by sheep—and sometimes in every summer there were neither cattle, sheep, nor horses, for one or two months together.]

83. We all know that the young shoots and leaves of sassafras bushes are eaten with relish by most grazing stock—horses, mules, cattle and sheep. The young shoots and leaves (if not the older) are also very mucilaginous, as all know who have chewed them for their pleasant flavor. But I have not until lately heard of their being used as forage. Mr. Francis Nixon of Perquimons, stated that he had known calves, when penned, to be separated from the cows, but not to be entirely deprived of milk, to be fed on the branches or tops of sassafras bushes—of which the calves ate heartily, and kept in very good order on this food only, with a little milk which they were still permitted to suck after the milking of the cows.

Suckering Corn.—Labor and Benefit.

84. It is almost universally the custom to pull off the suckers which shoot out from the roots of young corn. But it is done so imperfectly, and so many of the later suckers are left to grow, that I have long doubted whether the operation, as performed, did any good. The earliest suckers will make good ears, if the land can yield as much. These are usually all pulled off, and by neglect, the latter suckers only are left, which bring either deformed and imperfect ears, or more generally, none. Under these impressions, I have for many years omitted all suckering of corn, until making the following trial of the labor of perfect and effectual suckering, (which is never done in large practice,) and the benefit of such suckering.

Experiment.—On June 5th, 1851, five adjacent corn rows, 384 yards long, were suckered (for the first time) by only one careful and trusty laborer, who was thus employed 1 hour and 32 minutes,

The corn stood two stalks together at every 3 feet in the row, and the rows 5½ feet apart. On June 14th, these rows again needed and had suckering. The time required not observed; but probably it was not less than the first. On July 2nd, again suckered the same. It then engaged the labor of two hands for 40 minutes, equal to 80 minutes for one laborer. The suckers pulled off at this third operation, I counted myself, after they were pulled off, and laid in rows for my inspection. They amounted to 936, varying from 10 to 40 inches in length, and generally from 18 to 24 inches. No doubt some of the larger had been omitted, because small and not observed at the second pulling. All this and the adjoining ground was sown in peas on June 5th, and produced a heavy cover. Other experiments and measurements of corn made close by, showed that this growth of peas damaged the growth of the corn. Possibly it may have increased the evil of suckers remaining.

Result.—October 15th.—Gathered, shucked, and measured the corn on these five rows, (suckered,) and also of five other rows on each side, of like corn and land, but from which no suckers had been pulled off. The products as follows:

| | |
|--|-----|
| Five rows, suckered, 384 yards long, made of | |
| baskets of ears, (1½ bushels each)..... | 31½ |
| Ten rows, (not suckered,) same length, 55½ | |
| ÷2=average..... | 25¾ |
| Difference..... | 3¾ |

Or rather more than 13 per cent. increase caused by this perfect and timely suckering. The corn suffered severely by drought, which probably made suckers, thick planting of corn, and also the cover of peas, sown thus early—all more injurious to the product of corn.

But even if as great increase were always to be gained from suckering corn, it is clear that it is never done, and cannot be done thus laboriously, and effectually through the crop. Since that trial, I have tried to have all the first suckers left; but to pull off all the latter growth, and not to leave but one (the oldest,) on any one stalk.

[My corn is an early kind—the Maryland “twin,” or “prolific” corn.—E. R.]

Want of Action, or of Profitable Results of Guano.

85. [Guano as manure has been so generally found beneficial, and also, in most cases, profitable, that success seems to be the general rule, and failures are but exceptions to the rule. This I readily admit, at least as to immediate or early effects—though remaining more in doubt as to results of much later times. Heretofore, in all the numerous publications on guano, we have seen little else of facts stated than cases of successful and profitable applications of this manure. Of such exemplifications of the working of the general rule, so many have been published, and so many have been observed or otherwise known by almost every intelligent farmer, that it would be useless for me to swell these minutes by adding more of such facts of successful use. But, though not so published, or generally known, there are also many well authenticated facts of failures—and within the accurate practice and observation of good farmers. It is important that such failures, or the absence of profitable results, or of but partial success, and whether in first applications or after several repetitions, shall be made as well known. In offering the following minutes of some

such cases, it is by no means my object to oppose the judicious and cautious use of guano.—E. R.]

86. Dr. Wm. F. Gaines of Hanover, has used guano for five or six years, and in all about 25 or 30 tons, on his farm, Powhite, bordering on Chickahominy. The soil light. The average product in corn (without and before guano,) 15 to 25 bushels to the acre, and from 6 to 8 of wheat, after corn. In some cases, good effects were obtained. But in the greater number of cases, so slight have been the benefits derived, that he is sure that, on the whole business, he has not been more than repaid for the outlay. No abiding improvement of the land has been seen, even where best early effect was noted. The guanoed land has not been thereby made capable of securing better stands of clover.

87. Mr. Francis K. Nelson of New Kent, on the White House farm, has used guano to the extent of 70 tons, in several different years. He estimated the returns as being about enough fully to reimburse the costs—but yielding no clear profit to encourage the continuation of the use. He has used this manure on soils of various qualities, including some very poor lands, as well as much of good. In the autumn, 1852, among the last of his trials, he used 3 tons for wheat on very poor land—some ploughed under, some harrowed in with the seed, and some as top-dressing. He is confident that the benefits did not more than repay the expense, if so much.

88. Mr. John Taylor of Caroline, applied 10 tons of guano to his wheat, on Hazlewood farm, on the Rappahannock, in 1852. Soil, generally sandy, hazel loam, originally fertile, and now in good condition, [the farm and the subject of "Arator."] But there were smaller portions of different kinds of soil included, some very stiff. The guano was applied about 110 lbs. to the acre, with an equal quantity of gypsum previously mixed. A small space had double this quantity for comparison. Some of the dressing was ploughed under, and part harrowed in, at the time of seeding wheat. No benefit worth consideration was produced on any part of the field, or by any mode of application.

89. In 1853, he again sowed, for wheat, 4 tons of guano, without gypsum, and, as before, with very little effect, and certainly without anything like an approach to reimbursement of the costs.

90. He has heard generally, and in many cases particularly, of the applications of guano made last autumn, (1853) on almost every farm along the southern side of the Rappahannock, for about 40 miles in Caroline and Essex counties; [soil mostly sandy and rich]—and he does not believe that in any one case has the expenses been paid by the increase made in the crop of wheat. He has heard of much better results this year on sundry farms on the northern side of the river, in King George and Westmoreland counties.

[To be continued.]

To SAVE ONE'S BACON.—May I venture to suggest that this phrase has reference to the custom at Dunmow, in Essex, of giving a fitch of bacon to any married couple residing in the parish, who live in harmony for a year and a day. A man and his wife who stopped short when on the verge of a quarrel might be said to have "just saved their bacon;" and in course of time the phrase would be applied to any one who barely escaped any loss or danger.—*Notes and Queries.*

For the Southern Planter.

ESSAY ON THE CULTURE OF TOBACCO.

Mr. Editor,—In compliance with your request, I will attempt an essay on the culture of tobacco, though I confess in justice to myself I should have left the task for abler hands than mine. I scarcely know where to begin or where to stop, as too much detail will necessarily cause the repetition of matter familiar to many, while to a beginner the minutia is quite essential. At the risk therefore of being tedious, I shall begin with raising plants, and treat briefly of the other operations until the crop is ready for market, requesting you to curtail such portions as you may think proper.

Every tobacco planter knows that his success is greatly dependent upon his having an abundance of plants, of good size, and in good time. Like all other valuable objects, the attainment of them requires perseverance and trouble. It is first necessary to select suitable locations for plant beds, and it is better to have several small beds than one or two large ones, since if any disaster should happen the chance of success with several in different localities will be much better. For a crop of 100,000 hills four beds of about 300 square yards each I should recommend. As to soil, the texture differs so widely in different sections of the country, it is best to leave it to the planter's judgment, simply stating that a rich, moist, virgin soil in the woods with a southern exposure, and in a clay soil a little admixture of sand, is such as we generally find preferred. As early in the winter as possible, a sufficient quantity of wood should be cut at the places intended to be burned, the bed cleaned off by cutting off trees, shrubs, and raking off leaves, &c. I should prefer always to burn most or all before Christmas if possible, as the land is generally in much better condition than after the winter rains, and it requires much less wood. Having the wood cut, skids are laid across the centre of the proposed bed, and wood laid across them covering some four or five feet. After burning about an hour, the hands with wooden hooks draw the fire from the centre towards each end on the skids, wood is put on, and so continue to draw the fire, and add wood until the bed is completed. I prefer beginning in the centre if the wood is at hand, being more expeditious, but otherwise commence at either end and burn as above. The fires should be good ones and kept burning a sufficient time to insure the burning of the land thoroughly. An hour (when the land is in good condition) from the time the fire has been well started, will be long enough for each pile of wood before it is moved. When sufficiently cool it is cleaned off and well coultured, the roots, &c., taken off, then a heavy dressing of fine stable manure (prepared during the summer for the purpose) chopped in with the hoes, the whole well raked, sowed and trod. I think it highly important to manure the plant bed at this time, as the plants derive an early support from it which they never lose, and I would recommend the preparation of enough manure for that purpose during the summer. About two table-spoonfuls of seed for every 100 square yards will be sufficient and not too much. The seed are mixed with old ashes, and to sow them regularly it is best to sow one-half over the bed, and the other half across the first sowing. It is then trodden and thickly covered with brush. About the first of March the beds should be sowed over, lest some

accident should destroy the first sowing. Some persons have standing beds in locations particularly favorable, but from my experience I cannot recommend them. Should it be necessary, however, after the first year, the bed should be scraped over with the hoes and covered several inches deep with wheat straw or leaves (as soon as the plants are drawn from it) lightly burnt in the winter and similarly managed with those above spoken of. As to the use of guano, it may answer well, but stable manure succeeds well, and I think well enough should answer. As soon as the danger of frost is over the beds are uncovered, and from this time until time for planting, they should be closely attended to, for I know by close and persevering attention I have had most unpromising beds turn out well. If there should be any grass or weeds they should be gotten rid of, and from time to time repeatedly they should be well manured with stable manure and old ashes mixed, the former prepared as for plant beds, and occasionally a dressing of plaster if the weather is dry will be all I can recommend. As to the fly, our worst enemy, I have no remedy to offer against them, save the preparation of our beds in such manner by manuring, and the subsequent attention, as to force the growth of the plants so rapidly that the fly can only destroy a part at most. Should a failure, after due care and attention, seem certain, recourse should be had to the hot-bed system recommended some time since in the Planter.

I come now to the second part of my subject, viz: the preparation of land, planting and cultivation. Fresh land seems peculiarly adapted to the tobacco crop, but there is now so little to clear in Virginia I shall only speak of old land, taking it for granted that the newly cleared land will be well coultured and put in as good order as possible. The tobacco crop requires a rich soil, needs but little rain, and is a precarious crop in low, wet, situations. In this portion of the state it requires all the manure that is raised on the plantation. The land intended for tobacco, whether an old lot, or one to be made, should be broken up with a two-horse plough early in the winter. In addition to the freezes, and better pulverization, I think a number of insects are thereby destroyed. As to the raising and management of manure, it is not necessary to speak, as that is a subject of itself, ably treated of by many of your correspondents. I must remark, however, that I think the manure is generally applied too late. It is generally coarse, prepared with but little care, and not under cover. Hence, a valuable portion is lost, and the remainder is far from being in a suitable condition for the nourishment of young plants. If composted some weeks before use, or ploughed early in the land, (virtually composting it in the soil,) it will then be ready to give the plant, when it most needs it, an early and vigorous start. When applied late, it requires time for it to be in a condition to be appropriated, and the young plant suffers at the most critical time, and seldom recovers. Should there be a deficiency of manure, guano should be applied in ample quantity to supply what is wanting: Indeed, from the quality of manure generally made, the addition of a little guano may be profitably made. I have seen most marked effect from a small quantity applied on land after the farm-yard manure had been ploughed in, and do not hesitate to recommend its use in that manner. I have no doubt it gives the tobacco a good start, and keeps it in a growing state until the farm-yard manure

is ready to be taken up. As to the artificial grasses, I believe herdsgrass is the best preparation, and clover with us has not succeeded, being hard to get a stand often, and it seems to generate the cut-worm. From the analysis of the pea, it containing a large amount of potash, I am disposed to think our lots might be kept up with a good fallow of them and a little guano. I am now trying the experiment. I shall have two lots, and plant one in tobacco and sow one in wheat; after cutting the wheat sow in peas and fallow for tobacco, and follow the tobacco with wheat, thus raising a remunerating crop from each lot every year. Having digressed a little too far, I return again to the preparation of the land. Having ploughed the land, it is well to harrow once or twice during the winter. The latter part of February, plough in the farm-yard manure with single mould-board ploughs. In April, when the land is in good order, that is, moist enough for a season in the hill, if guano is used, sow it on the land and with the same single ploughs, bed the land, laying off the bed three feet three inches. If the land will admit of it, I should lay it off both ways by simply crossing the beds with a trowel hoe the same distance of the beds. The land is now hilled, and care should be taken to have large, full hills, applying all the loam to the hill. The first season after the 10th of May commence planting, though it will be good time any season in May, or up to 10th of June, while I should never, if I had plants, wait for the old fogie's notion and not plant until 25th of May or 1st of June. Having a season, or if the plants are large enough and a season in the hill when made, the plants should be drawn by the most trusty hands, while the others cut off the hills and clap them in the centre with the hoes, the plants being drawn, are dropped by a few hands, while others follow with pegs and plant them. It is very important to guard against a common error, planting too deep; only bury the roots of the plant, and press the dirt closely to them, but do not bury the bud. Should the seasons be difficult for planting, or, as is the case sometimes, should it be necessary, to water and plant, I know no method as likely to insure every plant, as covering with a handful of wheat chaff. It will be necessary to replant every season until late, to secure a good stand. The cut-worm is the first enemy we have to contend with. The best plan is to go over a portion of the crop early every morning and kill them while above ground. The cultivation of the crop will in some measure depend upon the seasons, and the judgment of the planter must decide the necessary changes from any established method. As soon as convenient, say in a week or ten days after planting, the hills should be scraped down. A crust is generally formed around the plant, excluding the air from the roots of the plant which this slight working removes, and any young grass is also destroyed. The next working should be more thorough, and should be given as soon as the plant has started to grow, with the single-horse Dagon run as close as possible to the plant, throwing off one-third of the hill, lapping the dirt between the rows, then throw back to the plant with the same, and follow with the hoes, giving a good hill. I think it highly important to have the hills large, and all the loose dirt drawn up on the hill. Large hills, with clean furrows between the rows of tobacco, will allow all superfluous water to sink or run off, so as not to injure the tobacco. From ten to fifteen days after this working, it will be necessary

to give just such another working, hilling up the tobacco still higher. Should the land be laid off both ways, let this working be across the first. As soon as the plants are high enough, one or two hands should begin to prime and top them by taking off a few of the lower leaves, and taking out the buds. There is great difference of opinion as to the proper height of topping. From eight to twenty leaves are recommended—the latter for manufacturing. If the tobacco is pretty forward and the land rich, at first prime off just enough leaves to hill up the tobacco well, and top to from twelve to fourteen leaves; continue to top to twelve leaves until 1st of August, then top to ten until, say, middle of August, and from that time until 1st of September top to eight, then six. By thus priming and topping, I believe more tobacco is made, and of as good quality as if topped altogether at eight leaves, inasmuch as the lower leaves soon get their growth, and take no more support from the soil, and serve to protect the balance from dirt and the roots from the effects of the sun. The above workings, will generally be enough with the plough, though grass should never be permitted to grow among the tobacco, and as it will be necessary to scrape up once or twice more with the hoes, if grassy or hard, it will facilitate the hoe work very much by simply running a trowel hoe once in the middle of the row. By thorough working, keeping all loose dirt scraped up in the hill and topping as above, I think we do all to prevent the crop from one of its worst disasters—spotting or firing. About the same time that topping is begun, another enemy, viz: the horn worm, makes its appearance, and it will be necessary to kill them by going over the crop as often as possible, and diligent watching. By being very careful, not only can a number of worms (before they have done any mischief) be destroyed, but the eggs also. In addition to killing them on the plants, I think it well to have as many flies as possible destroyed, which can be easily done by watching about the Jamestown weeds about sunset, and catching them. If this plan was generally pursued, I have no doubt it would greatly diminish the number of worms. Shortly after topping, suckers come out, and it will be necessary (to use planter's language) to worm and sucker the crops all together. The crop should be gone over at least once every week. But two crops of suckers appear, but the crop is generally so irregular, the process of suckering and worming continues until the crop is cut. Next comes cutting and housing. The houses should be large and tight. At least twenty-four feet square. The better plan is to have them tight, with windows to admit air when requisite. I prefer them tight, as it requires less wood to cure the tobacco, and it will not come in order when cured after every rain. While almost every planter will admit the importance of permitting tobacco to become thoroughly ripe before it is cut, but few have the patience to wait for it. Overseers and hands are eager to get rid of it when cutting commences, and not unfrequently the employers join in the onslaught. Unless it spots (in which case no time should be lost, but cut forthwith) it should be allowed to get fully ripe. When ripe, it has a rich, glossy look, (and some varieties ripen piebald,) the edges and ends of the leaves curl under, and the leaf when doubled upon itself and pressed between the fingers, crack very freely. Having determined to cut, it is well to order the cutters to leave every plant about which there is

any doubt. The plant is split with a knife to within a few inches of the ground, cut off below the last leaf and placed bottom upwards between the hills. As soon as it can be handled without breaking, it is placed in small parcels, say enough to hang from six to eight sticks and hung on the sticks, from eight to twelve plants, according to size, on each, and then laid upon the ground like shingles on a house. A large quantity may be put together in this way without injury until time to scaffold or house as preferred. A better plan, however, is to put the sticks in the hill on the north side, with the ends or butts of the plant to the south. When all that is cut is hung, it is then removed, and I have never sustained any loss by it. If time will allow, and the weather is not threatening, I prefer housing the tobacco without scaffolding. It will yellow as well crowded in the barn as on the scaffold, and all danger of injury from rain is avoided, as well as loss of some from the effects of the sun. When put in the house it may remain a few days longer than if scaffolded, before firing, which, however, is no disadvantage. It is carried from the field crowded as closely as possible on the tiers, permitted to remain from six to eight days or longer, until it is yellowed sufficiently, then it should be opened, and the sticks arranged in the barn for firing. The sticks should be placed from six to eight inches apart, and may be placed a little closer in the roof than the body of the barn. The wood being arranged around the barn for the first two days, the fires should be small; a little warmer the second than the first day, and raised still higher the third and fourth days. If the weather is not damp in four or five days, (without firing at night, which is very hazardous,) the fires may be stopped, as the tobacco will be sufficiently cured for the process to continue without fire.* The degree of heat, though often spoken of as judged by the thermometer, is generally tested by the hand being applied to the lowest tier pole. When the fires are hottest the hand can bear without being very disagreeable, the heat of the tier pole, and by frequently applying the hand during the process of curing, it becomes a good test of the heat. Whenever the weather is so damp as to bring the tobacco in high order it must be dried by fire. When so thoroughly cured as to be bulked down without any risk, it should be taken down in supple order the first season for stripping. A platform little raised from the ground should be made across the barn, (the sticks generally used for that purpose laid across logs,) the tobacco taken off the sticks and well packed, lapping the tails and then covered with tobacco sticks—straw is better, to prevent its drying. Whenever the weather is such as not to allow out-door work, the tobacco is stripped. No operation is more important than properly assorting tobacco. The buyer always judges by the meanest sample in a hog'shead, so that good tobacco may sell at inferior prices by being badly assorted. Every tobacco planter should have a good stove to use in his barn when stripping. It is more comfortable, no smoke, and there is no danger of fire from it—quite an important consideration. Hands enough to keep the remainder employed, assort, while the others tie up in bundles of from six to eight leaves. The proper number of kinds depend upon the looks of the crop after it is cured. If the crop is a mixed one in color, as is generally the case with

* If the leaf is cured well and weather fair and cool, the fires may be stopped.

mine, I make five kinds. 1st, the largest and best; dark; 2d, largest yellow; 3d, second quality, or short of those are put together, making third kind, and two kinds of lugs; those leaves that are whole and inferior leaves of the best tobacco make the best quality, while the ragged and most indifferent of the whole compose the meanest lugs. If the crop is a uniform one in color, either dark or yellow, of course four kinds would be enough, 1st and 2d quality, leaf and lugs. The manner of assorting as well as tying, should be frequently noticed. The tyers should have leaves of the same length in a bundle, and of same color, and the heads should be short. A small leaf, or a portion of a large leaf should be used for tying. A good hand will tie one thousand bundles a day, which is the only manner I know of judging a day's work. By a few trials, a planter will soon know how much each hand will tie. At night the day's work is bulked down, unless the order is doubtful, in which case it is hung up. If bulked, it should be laid straight, taking two bundles at a time, and covered. It remains in this condition until near time for prizing, when it is taken up, hung upon sticks, twelve or fourteen bundles on a stick, hoisted in the barn, the sticks eight or ten inches apart. After it dries thoroughly, the first good season it is taken down—should be straightened and packed with almost as much care as in prizing. This, I think, adds greatly to the appearance of tobacco, especially, if it is indifferent, and as good tobacco sells on its own merits, we should do all we can to sell an inferior article well. While packing, the inferior bundles of each class should be thrown out and put with the class they suit. After packing, it should be heavily weighted and covered. For prizing, at least three hands are needed. Here again, any inferior bundles should be picked out, and the bundles of good tobacco passed through the hands of those handling and put each one separately in the hogshead. Handling as much as possible gets rid of the dirt, and when opened in market the sample shows much better than if prized without being properly straightened. About 1,400 lbs., if good tobacco, should be prized in a hogshead, and if lugs, the heavier the better.

WM. H. JONES.

Mecklenburg, August, 1854.

PRESERVING BUTTER.

The farmers of Aberdeen, Scotland, are said to practice the following method of curing their butter, which gives it a great superiority over that of their neighbors:

"Take two quarts of the best common salt, one ounce of sugar, and one ounce of common saltpetre; take one ounce of this composition for one pound of butter, work it well into the mass, and close it up for use. The butter cured with this mixture appears of a rich marrowy consistency, and fine color, and never acquires a brittle hardness nor tastes salty. Dr. Anderson says: 'I have eaten butter cured with the above composition that has been kept for three years, and it was as sweet as at first. It must be noted, however, that butter thus cured, requires to stand three weeks or a month before it is used. If it is sooner opened, the salts are not sufficiently blended with it, and sometimes the coolness of the nitre will be perceived, which totally disappears afterwards.'"

For the Southern Planter.

EXPERIMENT IN RE-SEEDING WHEAT.

[Selected from the papers of the Nottoway Club.]

Mr. President.—In compliance with a regulation of our Club, which requires each member to write occasionally an experiment on some agricultural subject, and as the wheat crop is the subject of discussion at our next meeting, I propose to give an account of an experiment made last fall in re-seeding wheat.

On the 10th of November last, having examined a lot of my wheat which had been seeded the first of the previous month, (October,) I discovered that there was not more than one-half of the quantity of wheat up that was usually upon the land. The question arose in my mind, how am I to remedy this? Here I have a rich lot which has been seeded upwards of five weeks, and the wheat up, not more than half thick enough. To lose no time in re-sowing it I became satisfied at once that it was necessary, and with better seed than the first, which was damaged. But what quantity of seed and in what manner I should re-sow were the subjects of doubt with me. After recollecting the many reports given that wheat harrowed over in the spring, in seeding clover, was not injured, but continued to be improved, I concluded it would not receive injury from the same treatment, or if broken up entirely at so early a stage of its growth, and, therefore, determined to re-sow one-half of the quantity of seed that was usually sowed, calculating on the half then up, to enable the land to produce its full crop. I thought of and preferred getting in the seed with Geddes' large harrow, but finding the land (which is naturally stiff) made so hard and close by the frequent rains, which had recently fallen, that the harrow could not accomplish it. I finally concluded to put the seed in with the trowel-hoe. At the time of operation one of my neighbors remarked to me, "you are destroying what little wheat you have there." I then called his attention to the effect produced by the plough—how nicely it removed and placed the wheat uprightly, and how few grains were left exposed or blades covered. I was apprehensive that the manner of putting in the seed might not answer so well, as it had no rain sooner than the seventh day after being seeded, and also that it would ripen irregularly. My fears, however, proved to be ill founded. Both seedings ripened together, and came to the scythe, yielding a fine crop of grain, and I believe as much as the said lot would have made had there been a sufficiency of wheat upon the land from the first seeding. I re-seeded also a piece of fresh land a day or two afterwards. In this case I used the trowel-hoe on one portion and the harrow on the other, (as the soil here is light and porous,) but discovered no difference, either in the growth or yield of wheat from the two modes of putting the seed in. This land likewise succeeded in yielding an average crop.

R. E. HASKINS.

WHEAT TRADE IN FREDERICKSBURG.—To give an idea of what the millers of that vicinity are doing this season, the Fredericksburg News states that one of them has already taken in 11,000 bushels, to say nothing of what he has bought besides. One of them has sold 15,000 bushels in the shape of flour and has the cash ready to buy more.

For the Southern Planter.

SAVING PORK.

Mr. Editor.—As the season for the slaughtering of hogs for bacon is near at hand I venture, at the risk of being considered a bore, to add a scrap to others which I have already written for the Planter. I wrote for it some years ago a series of short articles, and among them one upon my present subject. Though a trite and hackneyed subject it is an important one.

The error still prevails that it is wrong to salt pork until it is rid of the animal heat, and a mischievous error it is. It may be wrong to *pack* it, but it is not far wrong to apply salt to it, for the salt will rid it the sooner of the animal heat, and prepare it the sooner for "salting down" and packing. I have known house-keepers, in doubtful weather, to slaughter their hogs, split them down the spine, and keep them lying out of doors all night, to clear them of animal heat. In the name of animal chemistry and common sense, I ask why not sprinkle them with pure salt and keep apart, either in the house or out of doors? They get cool the sooner by so managing, and by the time the animal heat gets out, the salt gets in nearly to the bone. This I know from many years' experience; yet some of my neighbors have said to me "I have tried your plan, and my meat is tainted by the hot weather." But on inquiry, they salted and *packed* while the meat was *warm*—whereas, if they had salted first, and after it had got cool then re-salted and packed, they would have had sound bacon, as I had the same seasons, upon the plan which I am advocating.

I will not trespass upon your columns by commenting upon the almost innumerable expedients for making good bacon, nor pretend to originality which I do not claim, except it be original with me to write and talk upon a common-place practical subject, rather than upon a more ideal one. It was well said by a medical writer, in his prefatory remarks upon an excellent essay upon burns and scalds, that a man who could make an improvement in addition to the knowledge which we had in the treatment of our prevalent fevers, would deserve more credit than would the discoverer of an infallible remedy for hydrophobia.

T. H. A.

From the New England Farmer.

HOUSE PAINTING.

The item of painting, paper-hanging and glazing, is no small one in New England, where there is, without question, a more general use of paint than in any other section of the world. Nowhere will you find less unpainted buildings, in proportion to the number, than here. Everybody uses paint—we are sorry not to be able to except even some of the *sweet heart* confectionary people. All are interested more or less in its cost and preservation. The general subject, with appropriateness of the various hues for the different purposes of use and ornament, will be the subject of these articles.

I need not say to those who understand the

subject, that it is one which is usually far too little understood; coming as it does under every day observation, it would seem to be well for all to know its most simple details.

Since the recent extensive manufacture of zinc, white as a pigment, there has been great inquiry as to its merits, in comparison with lead. Having given the subject personal attention for the past two years, I am prepared to recommend zinc, because it is not so poisonous, an equal number of pounds will cover more surface equally well, and it is more beautiful. And besides, I know no reason why it is not more durable. There is a mistaken notion, which is very prevalent, that white lead is the *oxide* of lead. It is the *subcarbonate*—*litharge* is the *oxide*, and *red lead* the *deutoxide*, while white zinc, as it is called, is the *oxide* of zinc; and not a carbonate, like white lead.

The drying process is not by evaporation like varnish, but by the absorption of oxygen from the atmosphere. Inexperienced painters frequently complain that zinc does not cover so well as lead; the reason is they use it *too thin*; it has to be mixed apparently thicker and spread on more flowing than lead; so treated, it is more satisfactory, and still not so expensive as lead. The idea has been extensively promulgated, that painting done in the fall of the year, is far better than at any other season. It is easy to see the origin of this notion and the means of its continuance. Painters always have a special rush of work in the spring; all nature is then thawing out of winter quarters. Man feels the renovating influences, and then, if ever, a desire to assist nature in the beautifying processes going on round him, to make improvements and repairs. All want their work done "right off," but they can't all be accommodated at once; the painter must be idle most of the year, or have his work distributed through the season. Some shrewd one starts the idea that it is actually *better* to wait—the economical ones do wait—and the idea is extensively diffused; everybody believes it, and the painter is benefited, and the story has performed its mission. Now the proper time to repaint is, when your buildings need it; when they begin to *chalk*, for even if there is an advantage, the loss sustained, will, beyond all doubt, more than counterbalance the benefit to be derived by waiting. The best time to paint is when it will be *thoroughly dry*, before either very *hot* or very *cold* weather; were there no other considerations to be taken into account.

As to color for outside painting, a house with no architectural pretensions may, with propriety, be painted white, or almost any other lively color, but a building, the moulding,

cornices, carvings, &c., which are alone ornamental, should not be painted white, or any other brilliant color, because the amount of light reflected, would in a great measure destroy the architectural effect.

SKYLIGHT.

ONIONS FOR FOWLS.

Scarcely too much can be said in praise of onions for fowls. They seem to be a preventive and remedy for various diseases to which domestic poultry is liable. Having frequently tested their excellence, we can speak understandingly. For gapes and inflammation of the throat, eyes and head, onions are almost a specific. We would recommend feeding fowls, and especially the young chickens, as many as they will eat as often as twice or three times a week. They should be finely chopped. A small addition of corn meal is an improvement.



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RICHMOND, NOVEMBER, 1854.

TERMS.

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☞ Postage on the *Southern Planter*, (when paid in advance,) to any part of the United States one cent and a half per quarter, or six cents per annum.

EDITORIAL.

For the last week we have been working, with three clerks, in the office of the Virginia State Agricultural Society for forty-eight hours out of every twenty-four, and have no time for editorial.

For the *Southern Planter*.

LEXINGTON (KENTUCKY) FAIR.

Mr. Editor.—On the 2d of September last I started for Kentucky, with the intention of being present at the Lexington Show. It will not be worth while to describe my trip, for there is nothing worth writing about until you get into Kentucky proper. I had a most disagreeable time for travelling, for it was a week of unmitigated drought, scorching sun, suffocating dust, and heat unparalleled. The whole country over which I travelled is burnt up; the crop of corn reduced in consequence, generally to one-fourth, and in no case will there be more than half a crop. I thought we, in this portion of Virginia, had suffered badly from the drought, but after getting to Kentucky I concluded that we had escaped wonderfully. The people of Kentucky, in addition to the burning up of their pastures and diminution of their corn crop, have suffered very much for the want of water for their stock, having to haul, in some cases, some two or three miles. There will be but few hogs fattened, and none, I think, for the Virginia and Southern markets, for corn is selling, for nearly as much by the bushel as it generally brings by the barrel. The loss of a corn crop is a serious matter in Kentucky, for it is upon that they depend for fattening their mules, hogs and cattle; and whenever there is such a failure of the crop as there is at present the prices of lean stock of all kinds is sure to fall. Fat stock, both mules and cattle, sell readily and at fair prices, but I think stock mules and stock cattle are at least twenty-five per cent. lower now than when I was in Kentucky two years ago. Good beef cattle, of sufficient age to drive to the New York market, were selling readily at 7 dollars per hundred, whilst two year olds, fat, but which are two young to be driven as far as New York, and are generally sent to Cincinnati, Louisville, Frankfort, and the nearer markets, were selling at about 6 cents net. Most of the cattle in Kentucky are sold by net weight, as there are hay scales erected at convenient places for weighing them. For cattle not *thoroughly* fat the rule is to take off 45 lbs. in the hundred. Whilst on the subject of beef, I will give you the weight of a lot of two year old high grade Short-Horn steers which I saw and which were weighed by the above rule. They were 30 in number, well formed, beautiful cattle, but owing to the drought not near so fat as I have seen cattle of the same age. They weighed 725 lbs. net, and come to \$43 50 per head. Had they been in the usual condition they would have weighed at least 850 lbs. The Kentuckians use oxen on their farms generally, and do nearly all their hauling with them, and they have a great deal of hauling to do in the winter, in getting out their feed to their stock, fire-wood for their families, and rails for fencing. They prefer, even for oxen, high grade Short-Horns, for the reason that they buy them at three or four years old, work them two or three years, feed them on corn through the months of March and April and sell

them in the fall, weighing generally over 1000 lbs. net. I saw six weighed, at the same time with the two year olds, which averaged over 1100 lbs. net, and sold for nearly \$160 a pair. The two year olds, mentioned above, were nothing extra; they were a fair sample of Kentucky two year old steers, and it was for that reason I have given you the weight and prices. But I must come to the Lexington Show.

The Show Grounds are beautifully located, on elevated grounds about half a mile south of the city, in a beautiful grove, affording fine shade for the visitors and stock, which was so much needed on account of the extreme heat. The grounds contain about 50 acres, which were purchased by the Society at an expense of about \$12,000. The Society has spent about as much more in fitting up the grounds, and I thought the whole arrangements of the grounds, whether we consider the facilities of getting to and from the show, or the comfort and convenience of the crowd when in the enclosure, were perfect and complete. They manage their shows in Kentucky different from any I have ever been at, and I will endeavor to describe their mode of management. There is an amphitheatre erected, which is over 300 feet in diameter. It is a circle and closely planked up about 6 feet high, when the seats commence, and rise one above the other, like the seats of a circus, and run back some 40 feet, affording room for 12 or 15,000 persons; under the seats and outside the ring are booths, in which all kinds of refreshments are served. The whole is well covered with shingles, and the spectators are comfortably seated during the whole show. On the first day nothing is exhibited except manufactures, agricultural implements, grain of different kinds, fruit, products of the garden, and dairy, poultry, &c. There is no stock of any kind on the ground the first day; on the second day cattle, sheep and hogs are exhibited; on the third, horses for harness and saddle; and on the fourth, draught horses, jacks, mules, &c.

The first day is called the ladies' day, as on that day all kinds of domestic manufactures are shown, consisting of jeans, shirts, socks, blankets, needlework of various kinds, but most of all, of fine quilts, some of silk, silk velvet, worsted, and cotton. The quilts were hung upon lines stretched across the ring, and looked most beautiful. I tried to count them, and if I made no mistake, there were upwards of *eighty*. I am not good at describing such things, and will pass to the second day. And here, again, the show is different, for they do not class the cattle into Short-Horns, Herefords, Devons, Ayrshires and natives. They have but one class as far as breed is concerned. They give a premium for the "best bull four years old or over," and so on down to calves; and all kinds show against each other. There was not a Hereford, Devon or Ayrshire on the ground, and never will be, I suppose, if they have to show against the Short-Horns.

You will, of course, expect me to give a description of the show of cattle more particularly than anything else. I was enabled to examine the cattle well, for through the kindness and partiality of some of my friends in Kentucky, I had been appointed one of the judges of cattle. The judges were all selected from other States, none of whom attended, however, except Mr. E. H. Smith, of New York, and myself.

I thought of you often whilst examining the cattle, and wished that you could be present, so that you could have *seen*, how entirely you were mistaken, when comparing the Short-Horns, with the

Devons and Herefords. You said "though there might be a sprinkling of premium animals, the average of excellence would be less." I pledge you my word as a man, and what little judgment I may have about cattle, that out of more than one hundred Short-Horns, which were shown, I saw very few ordinary, and not one inferior animal. And they were of all ages from calves to four year olds. You know how I begged you to go with me to Kentucky, for it is there you must go, if you wish to see the Short-Horns in perfection, for Kentucky is, in truth, "the home of the Short-Horns." They have got to be the common cattle of the country, and "see cattle where you will, you will see the Short-Horn colors, of red, and white, and roan, and you will see the form too, and the horn." The Kentuckians have long since learned that animals, well bred and properly managed, are profitable, whilst bad stock of any kind, and badly provided for, seldom repay the expense of keeping them. They get an earlier and better return, and the expense of fattening is diminished, for they get them into market so much earlier. I was very anxious to see the late importation of Short-Horns, which sold at such enormous prices last year, and to see whether they were better than the fine animals which I had seen in Kentucky at previous visits. Some of the animals are very fine, and others I think had better have been left in England—they certainly, at least, will not improve the many fine herds which they already had in Kentucky. I am the last person to say anything against the improvement of stock of any kind; and every one who attempts it has my best wishes. But improving stock is one thing, and importing miserable brutes—the refuse of English herds for the sake of the profit—is another and quite different affair. The success of the Company last year was so great that it gave rise to several other companies, who have imported a great many, both sheep and cattle. I saw several which had just got to Kentucky, which I think they will find some difficulty in disposing of. They had a *few*, and only a few, which were very good. I never could conceive why a bad animal should be made good merely by crossing the Atlantic. But to the Show.

In the class of bulls, four years or over, there were two entries. The premium was taken by Young Chilton, (No. 11,278 in the Herd Book,) imported last year, and purchased by Wm. Warfield at \$3005. He is, to my thinking, the best of the imported bulls. He is an animal of fine symmetry well proportioned; the quality of his flesh very fine, and his handling superior. He stood at \$24 last year, and cleared his cost; he now stands at \$50, and is making a full season, which I was glad to hear, for there is no person who has taken more pains to have fine stock, or who better deserved them, than his liberal and gentlemanly owner.

In the class of bulls over three and under four years old, there were four entries; three of them imported, belonging to Mr. Alexander, of Woodford and one bred in Kentucky. The premium was taken by Mr. Alexander with Lord John, and the second premium by the Kentucky bull belonging to Mr. Gratz—both very good.

Bulls two years old, eight entries, premiums both taken by imported bulls. The first was Mr. Alexander's "Grand Master," a very fine animal—very fat, however. The second, taken by A. & J. Alle with "Senator," a very fair bull, but his handling not as good as it ought to have been for a white animal.

Bulls one year old, nine entries; premium taken by George M. Bedford. This bull was eighteen months old, and weighed 1430 lbs. This was, in my opinion, the finest bull on the ground. He was good all over, and notwithstanding his size, which is no merit of itself, he was fine in every point, with small bones, perfect symmetry, and a fineness of handling, unsurpassed; in a word, he came up entirely to my ideas of what a pure, high-bred Short-Horn bull should be. The second prize was taken by E. G. Bedford, with a roan bull—very fine, as he had to be to get even the second prize, for the class was an excellent one, and contained several animals of uncommon merit.

Bull calves, twenty-five entries; premium to George Bowman, with a bull calf of perfect form and first rate quality. He was, I understood, got by the imported bull John O'Gaunt (No. 11,621 in Herd Book). It was this bull, John O'Gaunt, which I said in my article in the September number I thought one of the finest bulls I had ever seen, with the exception of his horns. I saw him in 1852 just imported, and about twenty-two months old. He cost his owner, Col. James S. Matson, in Kentucky, about \$1000. He stood him twelve months at \$25, and he went to 104 cows during the year. He sold him before the great sale last year at \$4000 to a company on the south side of the Kentucky river. The company stood him for the last year at \$50, and he went to 80 cows. So you see Col. Matson made \$5600 by him, and the company have made this year \$4000, and the bull not yet four years old. This is the way they do things in Kentucky. Our folks think \$50 a pretty high price for a calf. Matson bought a Cotswold buck at the Company's sale last year, and stood him at \$25, and made a "big season." I am, however, getting off my subject.

Cows four years or over, nine entries; premium to Mr. R. Duncan for a Kentucky bred cow, and a fine animal she was. Second premium to B. J. Clay for "Diana," bred in Kentucky, beating some imported cows.

Cows three years and under four, five entries; premium to Abram Renick for a Kentucky bred cow, "Duchess," as perfect an animal as any man need wish to see. Her pedigree, which I happen to know, is long and rich, and her appearance equals her breeding. No breeder need wish to possess a superior animal, and if he does, he is not likely to get it, for this cow is as near perfection as cows get to be. It affords me great pleasure to give my opinion about this cow, for no breeder has taken more pains in breeding and rearing his stock than Abram Renick. I doubt whether any man in the Union has bred as many good bulls, and bull breeding tests a breeder's qualifications more than any thing else. As strange as it may seem to you, it is much easier to breed good cows and heifers than it is to breed good bulls. Tested in this way Abram Renick stands at the top of his profession. He bred the premium yearling bull, spoken of above as belonging to George M. Bedford. The second premium bull was bred by his brother James. They were both got by the same bull, "Renick," which last was also bred by the Renicks and sold to Capt. Ben. Warfield and his son William, who now own him and the imported bull Young Chilton also. The bull "Renick" is now eight years old, but fine and vigorous, and the getter of more real fine stock than any bull in the Union. I purchased, when in Kentucky two years ago, for my friend, Mr. John Sanders, of this county, "Cossack," an

own brother of the above cow "Duchess." He is very fine, and will, no doubt, leave some superior stock in this county. The second premium in this class was taken by Mr. William T. Calmes, with "Princess," bred by himself, an uncommonly fine cow, not quite equal in quality to the premium cow, but one of which any breeder might well be proud. I think there were one or two imported cows shown in this class.

Heifers two years old, eight entries. This, as a class, was the best of any class shown. It was the best I ever saw or expect to see again soon; they were all so good that there was great difficulty in deciding the superiority of one over the other. I think I was nearly paid for my trip, in seeing 8 two year old heifers, of such perfection of form, and first rate quality. They elicited the admiration of every judge, and they desired proclamation to be made from the stand "that such a ring was never seen, and that each was worthy of a premium." Highly as I have always thought of the Short-Horns, their great excellencies were never before more fully impressed upon me. To magnificent size they united fine touch and every characteristic which belongs to their celebrated race. The premium was given to E. G. Bedford; and the second to W. H. Renick—both bred in Kentucky. There were, I understood, some imported heifers shown in this class.

Heifers one year old, twelve entries. First premium to J. Duncan; second to H. Stonestreet. This as a class was also very fine, and the judges differed more in their opinions than in any other.

Heifer calves, eighteen entries. Premium to Mr. Alexander for a perfectly formed heifer, rather hard in "the touch," but with that exception as perfect as any animal of her age could be. Second premium to Col. J. S. Williams—fine, also, and if I recollect right, superior in quality to her competitor.

There were four entries of "fat bullocks, four years old or over;" two entries of "free martins, or spayed heifers, four years old or over;" three entries of "fat bullocks, free martins, or spayed heifers, three years old and under four;" two entries of "free martin or spayed heifers, two years old and under three;" five entries "fat bullock, free martin, or spayed heifer, one year old and under two;" "oxen three years old and over;" eleven entries; "oxen under three years old;" six entries—all fat and fine as Kentucky corn and blue-grass could make them.

Hogs came next, and although there were not very many upon the ground—about fifty in all—they were fine. They like the Irish Grazier and Woburn hogs better, I believe, than any others. They must have hogs that can travel well after they are fattened. The Suffolks are too short-legged for travelling, but I have no doubt that to cross a Suffolk boar with Grazier and Woburn sows would give them a very superior animal, with sufficient length of leg for travelling.

The show of sheep was most excellent, especially in Cotswolds and South Downs. There were about forty sheep shown, consisting of long, middle and fine wool. I do not profess to be much of a judge of Cotswolds, but cannot help thinking those shown by Mr. O. H. Burbridge, of Bourbon, who took all the premiums for long wools, are as fine as any of their kind.

On the third day the horses were shown. It was a fine show, as might be expected in Kentucky, both in blooded horses and roadsters. There were

about three hundred and fifty horses of all kinds shown.

The fourth day the "draught horses, jacks, stock mules," &c., were shown. I did not stay to see it, having seen several shows of the same kind; and having no fancy for these long eared gentry, which, however, is a source of great wealth to Kentucky, I concluded to go up to my friend Renick's and take a good look at his Short-Horns. To give our "folks" some idea of Kentucky jacks and mules, I will give you the height of some of them which I learned afterwards. With all this size they were said by those who are good judges of this kind of stock to be fine also. Mules one year old. Premium mule 16½ hands high; second premium 16 hands 1½ inches. Jacks one year old. Premium jack 14 hands 3 inches high; second premium jack 14½ hands high. Jacks under one year. Premium jack 13 hands 3 inches high.

The show of poultry was quite moderate; one pair of Seabright bantams, the handsomest of the kind I ever saw; a few Dorkings; a dozen or so Shanghais, and a like number of Brahma Pootras; which last looked as though they would not be able to hang together much longer, and a coop of Poland top-knots, made up the collection. There was only one coop of ducks, the white top-knots. The Kentuckians seem to care very little about "fancy poultry;" and I can hardly tell why it is they have not gone into the "Chittagongs," the "Great Malays," the "Great Chin-India," "Hoang Hos," "Hong Kong," "Imperial Chinese or Mandarin," &c. &c. fowls. If there is any place that would suit them it is Kentucky. They would be fine to follow the fattening cattle, to keep the corn from being wasted. Instead of one of these "cockerels," weighing 12 to 15 lbs., he ought, after following fat cattle one winter, to draw 20 or 25 lbs. One of the Brahma Pootra "cockerels" (I believe that is the name the "fancy books" give young cocks,) which I saw, I would have taken to be the identical chap which sat for the portrait which you published in the June number of the Planter if I had not met him in Kentucky.

To say that I was highly delighted with the show in every department gives me great pleasure. So hearty, warm and hospitable is the welcome which a stranger receives in this glorious State, it would disqualify him for criticism, if any thing faulty had appeared. But I can with truth say that of four or five shows which I have been at, this was the best I have been at. Every comfort and convenience was provided for the judges and invited guests, and dinner provided each day at the expense of the Society. This was hardly necessary, however, for the visitors take their dinners with them in their carriages, and about one o'clock the cloths are spread under the sugar trees, and every person invited to eat. Lexington was filled to overflowing, and but for the fact that the private houses were opened for the reception of company, not only in Lexington, but for miles around, I do not see how the crowd could have been accommodated. I had a most happy time of it at my friend William Warfield's, about four miles from Lexington, who "keeps open house" on such occasions. He had kindly invited me before leaving home to "make his house my home" during my stay in Kentucky, and I was glad to accept his kind invitation, to get out of the bustle and confusion of the town.

You must excuse me for not writing earlier. It is with difficulty I have written at all. I was taken sick the second night after leaving Kentucky, and

had a hard time of it getting home. Since getting home, I have been confined to my room and to my bed most of my time, and would not attempt to write now but for the fact that I promised you a description of the show, and I suppose you would like to have it for the November number. I am afraid it is not in time, but I could not write it sooner. I intend as soon as I can to write you an article about "Abram Renick and his Short-Horns" and some other things which I saw in Kentucky

Truly yours,

ALEX. S. MATHEWS.

Wythe County, October, 1854.

For the Southern Planter.

HARVEST, THE PAST YEAR, FROM EXTRA EARLY SEEDING.

Mr. Editor,—I promised you in a former communication to give the result at harvest of a field of wheat sowed from the 25th of August to the 15th of September inclusive. I proceed to do so, by stating what you already know, from sad experience, that it was quite a disastrous year for wheat, on account of the rust. I had 47 acres, sowed as above stated and reaped from them 946 bushels of good wheat making an average of a little over 20 per acre. It is fair to state that the field was badly gleaned, by hirelings, and badly threshed by a machine out of order. I have no hesitation in stating, however, from the experiment, that no one need fear early seeding, as early as August, who uses guano or who has very rich land. In the part experimented on the rust injured me much less than any other part of my field; and I doubt exceedingly if I had not feared the frost of spring, and grazed until the 27th of February, whether I should have been hurt by rust, although, seeding as I did a late variety of wheat. I will state just here what I noticed in regard to frost injuring wheat, as regards luxuriant &c. In the above experiment there was a bed of wheat from some cause, much more luxuriant than any other, so much so, that the cattle, horses and sheep, refused to eat it. That bed stood the frost of winter and the late ones of spring better than any in the field, and yielded in proportion to 47 bushels per acre.

If you can give me any experience on grazing as to its benefits or injury to the crop, you will confer a favor. If no injury is sustained on behalf of suffering sheep in winter, I would say graze.

Yours truly, &c.

WAT H. TYLER.

Willon, Westmoreland, October, 1854.

We thank our correspondent for the above communication on early seeding. We think that many persons in lower Virginia are too much afraid of it, and if each man would make the experiment we doubt not he would be satisfied to sow much earlier than is now done. Whether as early as the seeding above, is rather questionable, but still matter of fair experiment.

As to grazing wheat with sheep we have no doubt of its benefit, under proper conditions, to both sheep and wheat. To state them now requires more than we have at command.

FATTENING ANIMALS.

There are certain principles which apply to the feeding of all animals which we will shortly notice.

1. The *breed* is of great importance. A well bred animal not only affords less waste, but has the meat in the right places, the fibre is tender and juicy, and the fat is put on just where it is wanted. Compare the hind leg of a full-bloom Durham ox, and a common one. The bone at the base of the tail extends much further in the former, affording more room for flesh, and the thigh swells out of convex or circular shape; while in the common ox it falls in, dishing and hollow. Now the "round" is the most valuable cut, and is only found in perfection in high-bred stock. The same is the case over the whole body. So well do eastern butchers understand this, that their prices are regulated by the breed, even where too animals are equally fat. They know that in a Durham or Hereford ox, not only will there be less offal in proportion to weight, the greatest quantity of meat will be where it brings the highest price when retailed, and will be of a richer flavor, and more tender fibre. The same is the case with hogs. A large hog may chance to make more meat on a given quantity of food than a small one, but the meat of the first will be coarse and tasteless compared with the other; and in the east, flavor and tenderness greatly regulate prices. Consequently, moderate sized, short-legged, small headed hogs, always, in the long run, beat large breeds out of favor. In preparing for a market, "fashion and taste" must be as much considered by the farmer as by the tailor. This one fact is at present revolutionizing the English breed of sheep. The aristocracy always paid high for small Welch and Scotch mutton; but the great consumers, the mechanics, preferred large fat joints. The taste is now changed. In Manchester and other such cities, these large joints have become unsaleable; and all the efforts of the breeder are now turned towards small breeds maturing early, with comparatively little fat. According to late writers, the large Leicester and Cotswolds are going quite out of fashion. When we give \$3,000 for a Durham bull it is not that his progeny are "intrinsicly" more valuable to that amount, but the increased value and the fashion together, make up the difference. And it is thus, that while Durhams and Herefords are preferred for ships and packing, Devons are high in repute for private families. The joints are smaller, but the meat has a peculiar richness, probably found in no other kind of stock; and the proportionate waste is said to be less than in any

other breed. Thus in the London market, the Scotch Kyloes, and then the Devons, (the former even smaller than the latter,) bring the highest price, because preferred by the aristocracy. So in Dublin, spayed heifers are sought for. But the breed also regulates the profit. There is nothing more certain than that one kind of animal will fatten to a given point on much less food than another, and as fattening our stock is only another mode of selling our grain and grass, those animals are to be preferred which come to maturity soonest, and fatten on the least food. The difference in hogs is very great and important. While some breeds must be fed for two, or even three winters, others are full grown and fattened at ten months old; and the difference in profit is enormous. We cannot go into particulars, but the following rules may be considered as applying to all: An animal may be expected to fatten easily when it has fine bone, and fine soft elastic skin, with thin or silky hair; the head and legs short, the "barrel" large, but chest and lungs small; and when it is quiet, sleepy, and easy in temper. An unquiet, restless, quick-tempered animal, is generally a bad feeder, and unprofitable.

2. Much depends in fattening on outward and mechanical management. Fat is *carbon*, or the coal which supplies the body with heat. If we are exposed to cold, it is burnt up in our lungs as fast as it is deposited by the blood; but if we are kept warm, by shelter or clothing, it is deposited throughout the body, as a supply on hand when needed. Warm stables and pens are a great assistance in fattening, and should never be neglected. So also quiet and peacefulness are important. Every excited action consumes some part of the body which has to be supplied by the food, and detracts from the fat. In the climate of Michigan, warm stables, regular feeding at fixed hours, and kind treatment, with perfect cleanliness, save many a bushel of grain. Animals fed at irregular times are always uneasy and fretting.

3. Ground and cooked food fatten much more profitably than raw food. Mr. Ellsworth found that hogs made as much flesh on one pound of corn ground and boiled to mush, as two pounds raw unground corn; though the first did not fatten quite as rapidly, as they could not consume as much food in the twenty-four hours. By grinding and smoking, ten hogs will each gain 100 pounds in weight, on the same food that five would do if it were raw.

4. A change of food helps in fattening. Thus an ox fed entirely on corn and hay will not fatten as fast, or as well, as one which has roots, pumpkins, ground oats or buckwheat,

&c., fed to it at regular periods. The latter may contain intrinsically less nourishing matter than the corn, but the change produces some unknown effect on the stomach and system, that adds to the capability of depositing fat. The best feeders change the food very frequently, and find that they make a decided profit by so doing. Salt should be given with every meal to cattle—say an ounce a day. It preserves the appetite and prevents torpor of the liver to which all fattening animals are subject. This torpor, or disease, is to a certain extent conducive to fat; but carried too far the animal sinks under it.

5. In cattle the skin should be particularly attended to. A fat animal is in an unnatural state, and consequently easily subject to disease. Taking no exercise, it has not its usual power of throwing off poisons out of the system; and if the skin is foul, the whole labor is thrown on the kidneys. It is found by experience that oxen, regularly curried and cleaned daily, fatten better and faster than when left to themselves; and if the legs are pasted with dung, as is too often the case, it seriously injures the animal.

6. Too much rich food is injurious. The stomach can only assimilate a certain quantity at once. Thus an ox will prosper better on 30 lbs. of corn and 30 lbs. of cob ground together daily, than on 40 pounds of ground corn. These mixtures are also valuable and saving of cost for hogs when first put in the pen. If an animal loses its appetite, the food should at once be changed, and if possible roots, pumpkins, or steamed hay may be given.

7. Oxen will fatten better if the hay or stalks are cut for them, but care must be taken not to cut too short. An inch in length is about the right size for oxen, half or three-quarters of an inch for horses.—*Farmer's Com. and Horticultural Gazette.*

From the Richmond Whig.

THE DROUGHT, CROPS, PRICES, &c.

LINDEN, WESTMORELAND COUNTY, VA., }
September 20, 1854. }

To the Editors of the New York Herald.

I have read with much satisfaction your circular letter, asking for information in regard to the drought, crops, &c. Although not specially addressed, I consider myself included in your general invitation, and shall proceed to give you such information as I possess on a subject, at this time, of vast importance to the whole country, and about which it is desirable the whole truth should be known. I have been largely engaged in grain growing for more than

thirty years; have been a close observer every circumstance affecting crops and price during that period, and have read attentive nearly all that has been published on these subjects in our own and foreign journals. My interest as a farmer is of course promoted by high prices. This, candor requires me to state yet I trust I am incapable of desiring to advance my own interest at the expense of the general prosperity of the country.

I spent a short time this summer at one of the Virginia watering places, and returned the lower country during the first week of the month. During my absence from here, I conversed with a great many intelligent gentlemen from various parts of the country, and had an opportunity to observe, critically, the condition of the crops in a large portion of Maryland and Virginia. The result of my observations and inquiries is, that the estimate of the crop of Virginia, contained in the letter of C. G. W. Munford, is in the main correct. From the falls of the rivers to the seaboard, there is much corn that is good, some that is very heavy and a vast deal that will be scarcely worth gathering. The crops in the fine valleys of the Rappahannock and Potomac until within 30 miles of the Chesapeake Bay, may be said to be a failure, and from that quarter, which usually exports largely, there will be little none to spare. Above the falls of the river the drought was still more fatal. From the county of Albemarle to the Potomac, and from the head of tide to the Alleghany mountain the crop is entirely insufficient to supply the domestic consumption. In the valley of Virginia, one of the finest agricultural regions in the world, where lands sell from thirty to six dollars an acre, the most experienced farmer assured me that the average product of corn would not exceed a barrel (five bushels) to the acre, whilst many fields would produce absolutely nothing. My own observation on this spot confirmed the correctness of their opinions. The same state of things exists as far as I could observe, in the neighboring counties of Washington and Frederick Maryland. Beyond the Alleghany mountains, I have no accurate information, but that portion of the State is chiefly engaged in grazing, and very little grain is there grown for market.

Of the crops in the States west and north of Virginia, I heard much from gentlemen who had seen them, and I am satisfied that the press of the country is misleading the public in the effort, now so general, to produce the impression that the crops of the great corn growing States approximate an average.

A great error prevails in the country as

wards the *high price* of grain. Considering the circumstances affecting prices, existing in our country and throughout the world, the present price of grain is very *low*. Let us advert to some of these circumstances.

I.

The cost of production. However much prices of commodities may be affected from time to time by supply and demand, it cannot be doubted that in the long run the cost of production will regulate prices. The cost of wheat to the producer is the rent of land, the wages of labor, and the profits of capital necessary to produce it. For fifty years or more the average price of wheat in New York has been over one dollar a bushel. The wheat until of late years was grown on new lands, requiring no manure, and by labor demanding less than half the present rate of wages. Now it is grown to a great extent on exhausted lands, requiring a heavy outlay in guano, lime and other expensive manures. In harvest, three dollars are often demanded for a day's labor, whilst formerly one dollar was the highest price paid. So scarce and dear is labor, that crops in the West are left to rot upon the ground, because of the impossibility of saving them. In Virginia, and other southern grain-growing States, the price of labor has, within a few years, more than doubled. Such laborers as sold a few years ago for four or five hundred dollars, now readily command a thousand; and such as hired for sixty dollars, are now in demand in the factories, and public improvements, at one hundred and fifty dollars a year. Medical bills and life insurance being also paid by the hirers. Mules that sold for fifty or sixty dollars, now bring from one hundred and ten to one hundred and fifty dollars, and lands also have advanced more than 100 per cent. Is it wonderful that where all the elements of prices have more than doubled, that the price of grain should advance? I repeat, it is extremely low, and but for the money pressure, occasioned by over-trading and fraudulent stock speculations, wheat would be to-day \$2 50 per bushel in the principal markets of the United States. This general rise of prices is not speculative or transitory, but permanent and progressive. Luine, in his essay on money, has described this subject with much greater clearness than is exhibited in the more elaborate articles published during the last year or two in the foreign periodicals. He says, that at the end of the century from the discovery of the Spanish mines in South America, prices had advanced more than 400 per cent., and would have advanced still more but for the increased demand for money, arising from the new impulse to en-

terprise occasioned by the influx of the precious metals. If the opening of those mines, chiefly of silver, produced such an effect upon prices, during the last century, what may we not expect during the next, from the vast treasures in gold continually pouring in from the mines of California and Australia? Mankind seem to forget that gold is but the *measure* and not the *standard* of value, and that it fluctuates quite as much in price as other commodities; its value being at last regulated by the cost of production. None need be surprised if the average price of wheat for the next century should exceed two dollars and fifty cents a bushel. This cause operating on prices is a permanent one, only to be checked by the failure of the gold mines. There are other causes affecting prices of grain, more or less temporary, that require notice.

II.

The price of grain is not regulated by the quantity of land in the country, or even by the quantity in actual cultivation, but by the labor and capital that can be employed in manuring the land, and producing the crops. No greater error can exist, than that it is possible naturally to increase crops by increasing the breadth of land sown, without a corresponding increase of labor and capital. The census reveals some striking facts on this subject, which it is well to consider. The tendency of our population is to the cities and towns, fearfully increasing the number of *consumers* without a corresponding increase of *producers*. From among many others, take these examples: The increase of population in the State of New York, from 1840 to 1850, was 668,475; of this increase the city of New York had about 202,837, and Brooklyn, Albany, Buffalo, Rochester, Troy and Utica, had together 132,230; making in the aggregate an increase in these seven cities of 335,067—being more than one-half the entire increase of the State. If the inquiry were pursued through all the towns and villages of the State, it would probably appear, that whilst in this great State there is a fearful increase of mouths to be fed, the rural population—the only producers—have in fact been diminished. The increase of population during the decade in Pennsylvania, was 587,753; of this increase Philadelphia alone had 119,622. In slaveholding Maryland the same state of things to some extent prevails—though happily for the inhabitants and the welfare of the country at large, the general tendency of the slaveholding States is to a diffusion of the population over the rural districts. The increase in Maryland was 113,015; of which the city of Baltimore alone had 66,741. It will thus be

seen that whilst the producers of food, in some of the States at least, remain stationary, the consumers have increased at a fearful rate. It requires no profound knowledge of arithmetic or political economy to perceive that this state of things must have its effect on prices.

III. THE EFFECTS OF THE WAR IN EUROPE.

That large fleets and armies must require supplies, is most obvious, and however guiltless they may be of shedding each other's blood, the effect of the war upon prices is not the less certain. Besides disturbing the natural course of industry in the countries that become the theatres of war, producers are taken from the fields of agriculture to the camp, and become the most wasteful consumers; thus diminishing the supply and greatly increasing the demand for bread.

IV. SHORT CROP.

I have already spoken of the corn crop. I think you are greatly mistaken in supposing the last crop of wheat to have been an average one. In what State was it a full crop? Not in Ohio, New York, Virginia, Maryland, or even in Pennsylvania, as far as I am informed. Of the crops in the far West I know nothing, but always receive the paper estimates with many grains of allowance. In Virginia the crop is certainly very deficient, both in quantity and quality. When the quality of wheat is indifferent, the quantity is invariably short. The Executive Committee of the Agricultural Society of Maryland, after full inquiry, came to the conclusion, that the wheat crop of that State did not exceed half an average. The same may also be said of the crop of Virginia. I have passed through the Baltimore corn exchange several times during the summer, and examined the samples of wheat, and I have never seen them so poor. I sent wheat, the last season, to Baltimore, that weighed upwards of 63 lbs. to the bushel. I have examined the sales book of one of the largest commission houses this season, and the weight of the same variety ranges from 55 to 58—rarely making 58 pounds. An intelligent member of the firm stated to me, that he was satisfied, from the shipments made to his house, that the crop of the tide-water country was one-half short. Of the crops of Europe you will have more hereafter, when the necessity will reveal the truth that policy now seeks to reveal. Long continued rains before harvest are now followed by good or abundant crops. The only samples of new wheat offered in the London markets are reported as being of *inferior quality*. This, of itself, is a pregnant fact, which farmers can understand, if merchants will ignore it.

In conclusion, Mr. Editor, I have but a word to say. Should the general effort of the press to lower prices for the temporary relief of the necessities of the cities be successful, and large shipments of corn and other breadstuffs be made to foreign countries, we may yet run our folly, when the pressing wants of our own countrymen shall demand supplies, which can neither be had at home nor abroad.

I am yours, very respectfully,
WILLOUGHBY NEWTON.

PAYMENTS TO THE SOUTHERN PLANTER,

To the 28th of October, 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:

| | |
|---------------------------------------|--------|
| B. W. Fitzgerald to January 1855 | \$6 00 |
| R. Fitzgerald to July 1852 | 2 50 |
| Warwick & Barksdale to January 1855 | 1 00 |
| John B. Hurt to July 1855 | 1 00 |
| Dr. N. M. Osborne to January 1856 | 1 00 |
| John H. Eustace & Son to October 1855 | 1 00 |
| Rev. John Cooke to January 1855 | 1 00 |
| William Gough to January 1855 | 1 00 |
| Jackson Hogeland to October 1855 | 1 00 |
| Annianus Hancock to January 1855 | 1 00 |
| William Y. Mordecai to November 1855 | 1 00 |
| William S. Hinton to July 1855 | 1 00 |
| S. B. Jones to September 1855 | 1 00 |
| W. B. Gates to October 1855 | 1 00 |
| J. P. Taliaferro to January 1855 | 1 00 |
| E. M. Anderson to January 1855 | 1 00 |
| Dr. T. J. Hughes to October 1855 | 1 00 |
| Rev. William Crawford to January 1856 | 1 00 |
| A. E. Smith to July 1854 | 2 00 |
| Col. W. O. Harris to January 1855 | 2 00 |
| William F. Bentley to September 1855 | 1 00 |
| Dr. John R. Baylor to October 1855 | 1 00 |
| R. C. Noel to June 1854 | 1 00 |
| Fleming James to September 1854 | 1 00 |
| Isham Peary to September 1854 | 1 00 |
| William E. B. Ruffin to January 1856 | 1 00 |
| George S. Blakey to July 1855 | 1 00 |
| Col. J. N. Trice to July 1854 | 1 00 |
| William T. H. Pollard to April 1855 | 3 00 |
| N. C. Clarkson to September 1855 | 1 00 |
| Josiah Smith to January 1855 | 1 00 |
| James W. Graves to January 1856 | 1 00 |
| Dr. P. T. Johnson to January 1856 | 1 00 |
| Thomas L. Humphreys to October 1854 | 2 50 |
| Col. John Hargrove to January 1855 | 1 00 |
| Dr. W. S. Morton to May 1856 | 1 00 |
| Edmund A. Pendleton to January 1855 | 1 00 |
| Robert N. Kelso to January 1856 | 2 00 |
| John S. Walker to July 1856 | 5 00 |
| Scott & Mockbee to November 1855 | 1 00 |
| Richard Stokes to August 1855 | 1 00 |
| James S. Oden to October 1855 | 1 00 |
| John T. Sawyer to November 1855 | 1 00 |
| James Wyszong to July 1855 | 1 00 |
| G. P. Keesee to January 1856 | 1 00 |
| W. H. Hall, Jr. to January 1856 | 1 00 |
| Dr. Thomas G. Peachy to January 1856 | 2 00 |
| William T. Scott to January 1855 | 1 00 |

| | |
|---------------------------------------|--------|
| S. M. Baker to July 1855 | \$1 00 |
| Philip Slaughter to January 1856 | 1 00 |
| John C. Mayo to January 1856 | 1 00 |
| James Skinner to July 1855 | 2 00 |
| Col. H. B. Powell to November 1855 | 1 00 |
| John A. Herring to July 1855 | 2 00 |
| Col. R. R. Brown to July 1855 | 1 00 |
| Ed. L. Travis to January 1855 | 1 00 |
| Major H. D. Thrower to September 1855 | 1 00 |
| E. A. Tillman to November 1855 | 1 00 |
| Joshua White to July 1855 | 1 00 |
| Joseph Mead to July 1855 | 1 00 |
| Charles Williams to July 1855 | 2 00 |
| John A. Carter to September 1856 | 3 00 |
| H. H. Fleisher to January 1855 | 1 00 |
| Dr. W. W. Oliver to November 1855 | 1 00 |
| W. B. Stanard to July 1855 | 1 00 |

SCOTT'S LITTLE GIANT PATENT CORN AND COB MILL,

Patented May 16, 1854.



The attention of Planters, Farmers and Stock-feeders in general, are respectfully called to this Mill as the most important article of the kind now in use; not only well adapted for grinding Cob Meal for Stock, but Grits for the table and especially Bread Meal from corn not fully ripe or dry in the fall.

In setting this Mill no mechanic or frame work is wanted, only requiring to be fasted to a floor or platform. Easily adjusted and used by any body, even a child.

The LITTLE GIANT has received the first premiums at the late Agricultural Fairs of Missouri, Kentucky, Maryland and other States; and that in the most complimentary manner; as well as the most ready commendations from the thousands witnessing its performance.

These Mills are guaranteed in the most positive manner; and No. 2 warranted to grind 10 bushels of feed per hour with one horse, and offered at the low price of \$44, all complete, ready for attaching the team—No. 4, at \$66, grinds 20 bushels per hour with 2 horses.

Manufactured by SCOTT & MOCKBEE, No. 7 Ballerston Street, near Light Street, Baltimore, Maryland. Liberal discount to dealers. State and County Rights for sale.

From the Cincinnati Gazette.

CORN AND COB CRUSHERS.—We stepped in yesterday to the establishment of Messrs. Scott & Hedges, No. 9 Water Street, and witnessed the performance of SCOTT'S PATENT CORN AND COB MILL, called the "LITTLE GIANT" and can assure those who are in need of a mill for grinding ear-corn for feed, or cracking corn and oats together, that this article is the best adapted for that purpose of any thing we have ever examined. With one horse, they are able to grind at the rate of from 10 to 12 bushels per hour, breaking all the corn and pulverizing the cob completely. The whole mill, ready to hitch the horse to, weighing about 300 lbs, and sold at the low price of \$44, and warranted at that—it does strike us it will soon find its way to every good farmer and economical teamster in the whole country. In regard to the style and workmanship of this Little Giant, we must say it is a little ahead of the rest of the family, and no wonder, for it is Western
no3t*

IMPROVED ESSEX PIGS.—The subscribers are now ready to engage pigs from fall litters, got by their superior boars "Lord Weston" and "Uncle Tom." Prices—\$25 per pair; \$15 a single pig. Also the reserved lot of 5 from a spring litter, which won the first prize at the New York State Show this year, consisting of 3 boars and 2 sows—price \$20 a piece. In all cases the money must be forwarded before shipment of the pigs, which will be well boxed and sent by express or otherwise, as desired.

W. P. & C. S. WAINWRIGHT.

Rhinebeck, Dutchess Co., N. Y.—nov2t

VALUABLE FARM AND WOOD LAND FOR SALE.

The subscribers offer for sale a most valuable farm, called "Farmington," lying in the county of Charles City, about six miles below the Court House, within two miles of "Kennon's," one of the most public landings on James River, having also the advantage of a creek running up to the land, making it very convenient to receive lime and deliver grain and wood. Said tract contains about 1500 acres, 575 of which are in cultivation under the five field rotation, all of which has been limed once, about two-thirds twice, and a portion three times. It is now well set in clover and producing heavy crops of wheat, corn and oats. The balance of the land is heavily timbered, and well worthy the attention of persons engaged in the lumber and wood business. It is supposed by judges that from 8000 to 10,000 cords of wood might be cut off the land, (leaving a sufficiency of timber for the farm,) which commands readily, at the landing, \$3 50 to \$4 per cord. The buildings on the farm are all in good repair; the dwelling is a frame one, containing seven rooms, with an office in the yard and all necessary outhouses, barns, stables, &c. for carrying on farming on a large scale. For further information apply to

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SUFFOLK PIGS from the stock of Prince Albert, which gained the gold medal at Smithfield Club, England, also the first prize at the exhibition of the Norfolk Agricultural Society, Massachusetts, 1853, two to three months old, supplied with food delivered on board Express cars or vessel on receiving thirty dollars per pair. Or they will be sent to any part of the United States, upon receiving a certificate of deposit for forty dollars, from the Postmaster, that upon their reception, in good order, free of expense, he will pay.

Address JAMES MORTON,
West Needham, Mass.
Or GEORGE H. P. FLAGG,
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se3t*

BOOKS ON AGRICULTURE, &c.—J. W. RANDOLPH, Publisher, Bookseller and Binder, Richmond, offers for sale a large stock of works on Farming, Gardening, Horses, Cattle, &c. Among the most valuable are the Plantation Book, Ruffin on Manures and Agricultural Education. Catalogues will be furnished to all who apply.

Ruffin's Agricultural Essays will be published soon.
oc—2t

BROGUES!! BROGUES!! BROGUES!!!—6000 pair Richmond made Brogues for sale on accommodating terms, by N. DEVEREUX, Leather Dealer,
132 Cary Street,
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PURE GAME FOWLS.—The subscriber takes pleasure in the announcement to the public his stock of Game Fowls, which he keeps on hand and for sale. Thorough breeds from the best stock of Mexican, Kinney, Butcher, Caroline, Creole and Earl of Derby Game. Prices ranging from two to ten dollars per pair, according to quality and age. Address J. McL. ANDERSON,
octf Ruther Glen P. O., Caroline County, Va.

ARTIFICIAL GUANO for sale in quantities to suit purchasers, at \$25 per ton. Apply to
oc3t RICHARD CAUTHORN, 15th Street.

CHOICE FOWLS FOR SALE.—The subscriber has the following kinds of chickens, ducks and geese: Ebon Sumatra, Bengal, Java, Pheasant and Mallacca game chickens; the Aylesbury and Java ducks, and Hong Kong geese: each breed warranted pure and distinct. He has also various crosses of the above named chickens, which in size, beauty and symmetry surpass the original stock. All of which he will sell on reasonable terms, securely cooped and delivered either in Richmond or on the Canal, (free of extra charge.) Address

DR. ERASMUS POWELL,
Powell's Tavern, Goochland Co., Va.

oc3t*

THE HORSE, THE HORSE,

NOBLEST OF DOMESTIC ANIMALS, and the one most frequently ill-treated, neglected and abused. We have just published a book so valuable to every man who owns a Horse, that no one should willingly be without it. It is entitled **THE MODERN HORSE DOCTOR**, and is from the pen of that celebrated English Veterinary Surgeon, Dr. George H. Dadd, well known for many years in this Country, as one of the most successful, scientific and popular writers and lecturers in this branch of medical and surgical science. The book which he now offers to the public, is the result of many years study and practiced experience which few have had. From the numerous and strong commendations, of distinguished men and the newspaper press, we select the following:

Extract from a letter from Hon. John H. Clifford, Ex-Governor of Massachusetts.

NEW BEDFORD, MAY 11, 1854.

DR. DADD,—Dear Sir:—I hope your new work on the noblest creature that man has ever been permitted to hold in subjection, (the Horse,) will meet with that success, which all your efforts in this direction so well deserve.

Your obedient servant.

JOHN H. CLIFFORD.

From Hon. Marshall P. Wilder.

BOSTON, MAY 13, 1854.

DR. DADD,—My Dear Sir:—I am greatly obliged to you for the valuable treatise, the results of your own investigations, which you have recently issued, hoping that it may meet with the patronage of a discriminating community. I remain yours with great regard.

MARSHALL P. WILDER.

The *Modern Horse Doctor*, by Dr. G. H. Dadd, is a manual of genuine science, and ought to be owned and studied on the score of humanity, as well as interest, by every man who owns a horse.—*Boston Congregationalist*.

Dr. Dadd has had great experience in the cure of sick horses, and explains the secret of his success in this vol.—*New York Tribune*.

The author of this work is well known as a most skilful veterinary surgeon. His book is based on the soundest common sense, and as a hand-book for practical use, we know of nothing to compare with it.—*Yankee Blade*.

We know Dr. Dadd well, and are satisfied that he possesses most important qualifications for preparing such a book as this.—*New England Farmer*.

Messrs. Jewett & Co. have just published a very valuable work by Dr. Dadd, a well known veterinary surgeon, on the causes, nature and treatment of disease, and lameness in horses.—*Farmer's Cabinet*.

This is one of the most valuable treatises on the subject, ever published; and no owner of that noblest of the animal race, the horse, should be without it. Especially should it be in the hands of every hotel and livery-stable keeper. To many a man would it be worth hundreds of dollars every year.—*Ind. Democrat, Concord*.

By far the most learned and copious work on the horse and his diseases we have ever seen.—*N. Y. Evangelist*.

One of the greatest and most commendable qualities of this work, is, it is *practical* and plain to the comprehension of those farmers and others for whom it is mainly designed. The course of treatment favors generally a more sanative and rational system of medication than that recommended in any previously existing works on farriery. No farmer or owner of a horse should be without this book. Stable keepers, stage proprietors and hackmen, we believe, would derive profit by having at least one copy hung up in their stables for use and reference by their stable men.—*Daily News, Philadelphia*.

There is more common sense in this book than any of the kind we have ever seen, and farmers and owners of horses would find it a matter of economy to possess themselves of it. It will be of more service than the counsel of a score of ordinary doctors.—*Albany Courier*.

We deem this decidedly the best and most reliable work on the "Cause, Nature and Treatment of Disease and Lameness in Horses," ever published.—*Nantucket Inquirer*.

What we have read of this book induces us to regard it as a very sensible and valuable work; and we learn that those much more competent to judge of its value have given it their unqualified approval.—*Er. Traveller, Boston*.

This book supplies a great desideratum, which Skinner's admirable treatise on the horse did not fill. Every man may be his own-veterinary surgeon, and with much greater safety to this noble animal, than by trusting him to the treatment of the empirical itinerants who infest the country. It is well illustrated, and should be purchased by every man who owns a horse.—*Ev. Mirror, N. Y.*

This is a book that should be forthwith put into the hands of all who own or drive horses whether for the draft or gig, for the plough, omnibus or road, for hard service or pleasure.—*McMakin's Courier, Philadelphia*.

A good, clearly written book, which should be in the hands of every man who has a horse whose illness his affection for his purse make it worth while to cure.—*Bangs Mercury*.

This is a scientific, thorough and complete treatise upon the diseases to which one of the noblest of animals is subject, and the remedies which they severally require.—*Troy Daily Budget*.

It is a valuable book to those who have the care of Horses.—*Hartford Herald*.

He is not worthy to have a horse in his care, who will not use such a work to qualify himself for his duties to that animal.—*Commonwealth, Boston*.

Published by JOHN P. JEWETT & CO.,
Boston
JEWETT, PROCTOR & WORTHINGTON
Cleveland, Ohio.
se—3t For sale by all Booksellers.

FARMERS' AND PLANTERS' DEPOT, N. E. corner of 7th and Market Street, Philadelphia.—The most varied assortment of Agricultural and Horticultural Implements, Seeds, Dairy Utensils, Fruit and Ornamental Trees &c., in the United States may now be seen at our Warehouse, and to which we respectfully invite the attention of Farmers and Planters. It having been our earnest endeavor to secure custom, by keeping only the most improved and best made implements, we guarantee all articles sold by us fully equal to representations. Orders from a distance as punctually and faithfully filled, as if the purchases were present. We have but one price, to which we strictly adhere. Comprehensive, illustrated catalogues will be furnished gratis, on post paid application.

PASCHALL MORRIS & CO.
Agricultural Warehouse, N. E. corner 7th and
Market Street, Philadelphia
oc3t

COOOPER'S PATENT LIME AND GUANO SPREADERS.—Cooper's Lime Spreader, Guano Spreader, and Lime and Guano Spreaders combined. Sole Agents,
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Agricultural and Seed Warehouse,
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HALLADAY'S WIND ENGINE.—The best machinery for raising water by wind-power, in use.
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DEERING & DEDERICH'S HAY PRESSES.—We are prepared to supply these excellent Presses at short notice. They are warranted.
PASCHALL MORRIS & CO.
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SPAIN'S ATMOSPHERIC BARREL CHURN.—We are now manufacturing these superior Churns of various sizes. They are warranted equal to any in use.
PASCHALL MORRIS & CO.
Agricultural Warehouse,
No. 269 Market Street, Philadelphia
oc3t

FOR SALE! A BEAUTIFUL AND VALUABLE ESTATE.—Desirous to close my business in Frederick county, and remove to a central part of Virginia more convenient to a large landed estate I own in that quarter, I offer for sale, *Springdale* and *Bartonsville*, with various mills, forming certainly one of the finest estates in the whole country. Springdale contains upwards of 800 acres of fertile land chiefly limestone, or of a kind, mixed soil, upon a clay basis, all admirably adapted to wheat, corn, timothy and clover. There are about 60 acres of creek bottom of surpassing fertility, which might be cultivated twenty years succession with but little depreciation. Indeed, the ensuring quality of the soil is a characteristic of the whole farm, justifying stubbling and repeated continuous crops. For example, I have a small field which for twelve years has been in wheat or corn, and in all that time never failed to yield a noble crop. Three or four successive crops of wheat from the same ground is a common practice with me, without injury to the land or of any abatement of quantity produced.

The improvements on this estate are those which taste and a free expenditure of money for fifty years could make. There are $6\frac{1}{2}$ miles of limestone fencing, 5 miles of paling and plank, and the balance of locust stake fencing. There are 26 enclosures from lots of 4 or 5 acres to fields of 50 acres. The wood land, 170 acres, consisting of open forests of black walnut, ash, hickory and oak, is divided in eight lots, all enclosed and yielding pasture for sheep and cattle. A fine stream flows a mile and a half through the farm, and never failing springs rise in many of the fields.

The dwelling-house is a well constructed building of two stories, covered with tin roof, having dining-room, parlor, library, six chambers, beside four cellar and three attic rooms. There is a large and handsome piazza in front and a portico at the rear. The building is 90 feet in length, including the wings, of substantial hewn, square limestone, and having eight dormer-windows. A two story stone building, 50 feet in length, used as a negro quarter. An extensive barn, with stone underpinning and shedding; excellent stabling, one and frame, sufficient for thirty head of horses; also, houses for hay and extensive shedding for cattle; two corn houses, one rat-proof, capable of containing 1000 barrels of corn, besides granaries for wheat, oats, &c.; carriage house, a house, admirable dairy, with a large limestone spring very convenient to the house; large stone smoke house, brewer's house, wagon and cart sheds, and other convenient out houses.

The Village consists of stone house with eight rooms, being used as a wagon stand, large stone blacksmith shop, wagon and cooper shop, several excellent buildings, occupied by mechanics, with stabling, stone smoke houses, garrets, &c.

There are two excellent and large orchards of selected summer and winter fruit, the proceeds of which I sold one year for \$1200.

The Merchant Mill is a three story building partly of stone and partly frame, capable of grinding 20,000 bushels of wheat annually. It does also a large share of country grinding, and has a valuable plaster and saw mill attached; also, near it a miller's house, stabling, garden, &c.

This property is $5\frac{1}{2}$ miles from Winchester, a flourishing town of near 5000 people, and the terminus of the rail road connecting with Baltimore. The Manassas Gap Rail Road, connecting with Alexandria, Washington and Richmond, is only 11 miles south. The projected rail road from the Manassas Gap to the Coal Field will pass only a mile from Springdale, while the Valley Rail Road from Winchester to Staunton, undoubtedly soon to be made, will touch upon the farm. The Great Valley Turnpike, extending from Winchester to Tennessee, passes nearly a mile and a quarter through the farm, over which several mail coaches are driven every morning and evening, directly in sight of the house. These, together with the large number of carriages and other vehicles, hourly passing through a densely settled country, give to the farm a most cheerful aspect. The morning papers from Washington and Baltimore are received every day soon after dinner. The celebrated Capon Springs are but 20 miles off—Jordan's Sulphur but 10. There are 20 churches of various denominations within a

circle of 6 miles. A mile and a half from the farm is the village of Newtown, containing nearly 1000 inhabitants, with churches, an academy, post office, several stores, and various mechanic shops, &c. The farm is surrounded by a refined society, and in forty minutes a gentleman can take his family to Winchester over a beautiful turnpike to church, or upon a visit to a very clever and genteel people.

Sincerely desirous to sell this estate, but to avoid all higgling and needless applications, I will state my price for the whole, including the mills described, is \$72,000—one-half cash, the balance I am content to say two, four, six and eight years, the purchaser paying interest and securing all by a lien on the property. There are three farms united, with improvements on each, but I will not separate them in any sale. A good manager may always calculate on from 5000 to 6000 bushels of wheat each year, worth at the home market an average of \$6000. This is a clear net crop, for the corn, hay, stock, &c., will more than pay all expenses. The mills, houses and orchards, will rent for \$1200 per annum—thus making an income of \$7200 from about \$80,000 invested, including stock on farm, &c., or about 9 per cent. Such is the admirable tilth of this farm, its cleanness, condition of the fences, its level or gently rolling surface, &c., eight laborers can cultivate it. A healthier spot can hardly be found on earth. In a family of some 75 persons, including tenants, for 35 years, I have never known a case of bilious or intermittent fever.

To the wealthy merchant or professional man, who wishes to retire from business and enjoy health and ease, at a delightful residence, or the industrious farmer, looking to a profitable investment of his money, the extraordinary conveniences and resources of this farm present equal attractions. No one will purchase so valuable an estate without some personal acquaintance. To those at a distance disposed to inform themselves, I refer to a number of friends or neighbors who have visited this farm, many of whom are extensively acquainted with the facts set forth in this advertisement. In the event of a sale, the purchaser may have leave to sow wheat this fall, one hundred acres being already ploughed for the purpose, and I will give complete possession by the first of next October, if desired.

REFERENCES.—Hon. James M. Mason, Senator; Hon. A. A. H. Stuart, Staunton, Virginia; Charles Barnard, Esq., Boston; Moncure Robinson, Benjamin Eting, Esqs., Philadelphia; A. P. Kennedy, S. K. Burkholder, Esqs., Baltimore; Capt. L. M. Powell, Capt. William McBlair, United States Navy, Washington; Ro. B. Bolling, Esq., Petersburg, Virginia; William H. Macfarland, R. B. Haxall, Samuel Marx, Esqs., Richmond, Virginia; Myer Myers, Esq., Norfolk, Virginia; James K. Marshall, Esq., Alexandria, Va.; John G. Meem, Esq., Lynchburg, Virginia; Dr. Rice, New Market, Virginia; Dr. R. T. Baldwin, T. A. Tidball, H. M. Brent, James Marshall, Joseph H. Sherrard, D. W. Barton, Esqs., Winchester, Virginia; John S. Magill, William S. Jones, Joseph Long, James Chipley, F. B. Jones, James Gilkeson, Esqs., Frederick county, Virginia.

R. W. BARTON.

Near Winchester, Va., July 10, 1854.—auff

WILLIAM P. LADD, APOTHECARY AND DRUGGIST,
No. 319, head of Broad Street, Shockoe Hill, Richmond, Virginia, dealer in English, Mediterranean, India and all Foreign and Domestic Drugs and Medicines; also, Paints, Oils, Varnish, Dye-Stuffs, Window Glass, Putty, &c. For sale on the most accommodating terms.

Orders from Country Merchants and Physicians thankfully received and promptly attended to.
Jan '51—tf

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. Wm. H. Richardson, Richmond, Virginia.

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

ap '53—tf

A. MORRIS, 97 Main Street, is constantly supplied with all New and STANDARD AGRICULTURAL WORKS. The subscriber respectfully invites the attention of the public to his extensive assortment of Books on Agriculture, among which may be found—

The Chemical Field Lectures for Agriculturists, by Dr. J. A. Stockhardt; translated from the German: edited with notes by James E. Tesehemæher.

The Field Book of Manures, or the American Muck Book; treating of the nature, properties, &c. of all the principal manures in common use, by D. J. Brown.

The American Farm Book, or Compend of American Agriculture, being a practical treatise on soils, manures, draining, &c. and every staple product of the United States, with the best methods of planting, cultivating and preparation for market, by R. L. Allen

Elements of Agricultural Chemistry and Geology, by James F. W. Johnston, M. A.

The Monthly Journal of Agriculture, containing the best current productions in promotion of agricultural improvement, including the choicest prize essays issued in Europe and America, with original contributions from eminent farmers and statesmen, 3 vols. 8vo., John S. Skinner, Editor.

The Principles of Agriculture, by Albert D. Thaër.

The Farmer's and Planter's Encyclopædia of Rural Affairs, embracing all the most recent discoveries in agricultural chemistry, adapted to the comprehension of unscientific readers, by C. W. Johnson, Esq.

European Agriculture and Rural Economy, from personal observations, by Henry Colman.

Chemistry in its Application to Agriculture and Physiology, by Justus Liebig, M. D.

The Book of the Farm, detailing the labors of the farmer, ploughman, field worker, &c., by Henry Stephens.

Elements of Scientific Agriculture, or the Connection between Science and the Art of Practical Farming, by John P. Norton, M. A.

An Essay on Calcareous Manures, by Edmund Ruffin: 5th edition, amended and enlarged.

The Farmer's Barn-Book, by Clater, Youatt, Skinner and Mills.

Together with many other valuable works on farming, the treatment and management of cattle, &c.

A. MORRIS,

Bookseller, Stationer, and Dealer in
Piano Fortes, 97 Main street.

feb—tf

ALBEMARLE PIGS.

I AM prepared to receive orders for Albemarle Pigs—a breed made by crossing several varieties, which will grow to good size, and fatten easily at any age. This breed received some of the highest prizes at the Virginia State Fair. I have, also, four boar pigs, from my large Delaware Sow, (estimated to weigh, nett, near one thousand pounds,) which will be ready for delivery in a few weeks. Address, (post paid,) JOHN R. WOODS,
ja—tf Woodville Depot, Albemarle, Va.

ANALYSIS OF SOILS, &c.

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

Persons desiring further information will please address

WILLIAM GILHAM,

Prof. Chemistry and Agriculture, V. M. I.
Feb. 1, 1852. Lexington, Va.

STOVES AND FANCY IRON CASTINGS

Exhibited at the Virginia State Agricultural Fair,
By Messrs. Bowers, Snyder & Carter.

THESE Gentlemen erected Works, about two years since, by which they have been extensively supplying the State with articles for which we have heretofore depended entirely upon northern foundries.

Their Cooking Stoves have given entire satisfaction to all Virginia housewives who have used them. On the door of one of these we notice a representation of a sheaf of wheat, in which the heads are even the distinct grains stand out in beautiful relief.

They exhibit a specimen of parlor stove especially worthy of notice. Its style and finish are highly ornamental. Its chief merit consists of a door designed to increase the draught of the fire, which is made to revolve vertically upon a pivot.

These manufacturers, in a modest, unpretending way, are rendering good service to the State, by developing her resources in this branch of domestic industry.

E. B. SPENCE,

H. M. SMITH,

JAMES PAE,

Committee on Household Implements

I have sold principally, for the past two years the stoves manufactured by Messrs. Bowers, Snyder & Carter, at the Richmond Stove Works, and have found them to give my patrons entire satisfaction both in their operation and durability.

CHARLES D. YALE,

130, Main Street, Richmond, Virginia, Depot for Bolton & Yale's "Caloric Air Furnace."

jan 1854—ly

EAGLE FOUNDRY.

THE subscriber having removed to the large Foundry, just erected by him and fitted out with machinery of the latest and most approved style, is, in addition to the manufacture of Tobacco Flattening Mills, prepared to receive orders for Stationary Steam Engines, Saw and Grist Mills, Agricultural Machines, Tobacco Presses of every description, and all kinds of Iron and Brass Casting. He pledges himself to execute faithfully, and with dispatch, all work entrusted to him, and respectfully solicits a call from his friends and the public generally.

The highest cash prices paid for old cast iron brass and copper.

PHILIP RAHM,

ja—ly Cary, between Pearl and 15th st

BOOKS, PIANOS, MUSIC, &c.

JAMES WOODHOUSE, Wholesale and Retail Dealer in BOOKS, PIANO FORTES, STATIONERY, MUSIC, &c. 139 Main St., Richmond, Virginia. Constantly on hand, a full supply of standard AGRICULTURAL WORKS. oc—tf

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 order left will be punctually attended to, and letters addressed to the subscribers, Richmond, will receive prompt attention.

nov—tf

JOSEPH SINTON & SONS.

FARM, STOCK, CROPS, NEGROES, &C., FOR SALE.—The subscribers are authorized to sell a valuable farm in the county of Buckingham, 5½ 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

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, Imperia Chinese, Colata, 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, Ronen 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

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.

may—tf

R. R. DUVAL.

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

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, near Charles; R. D. Burns, foot of Bowly's wharf; Mr. Wilner, No. 2 Bowly's wharf—all commission merchants.

Virginia references: Hon. William S. Archer, Virginia; Gen. B. Peyton, Virginia; Hill Carter, Virginia; Lewis G. Harvey, Virginia; Rowlett Hardy & Co., Petersburg; A. C. Lane, Richmond; Robert Cole, Richmond, Virginia; M. Heartwall, D. T. Payner, James B. Lundy, J. Ravenscroft Jones, Geo. W. Field, Col. Isham Trotter, John Wambeks, Wm. Towns, Jas. Hays, Sr., Dr. Wm. W. Oliver, Samuel F. M'Gehee, 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,
may—ly Baltimore.

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

WOOL DEPOT.

Richmond, June 22, 1854.

DEAR SIR,—Having been engaged for years past in the sale of Wool, we are fully aware of the difficulties that the Wool Growers of this State have labored under to obtain for their Wool its fair market value. For this there are two causes—one is, that in each lot of Wool, indeed in each bag of Wool, there are several grades, and each purchaser has to buy some Wool that does not answer his purposes; he could not, therefore, afford to pay the full value for an article that he did not want, and which he only bought because it was not assorted. All who are familiar with the sale of tobacco, are fully aware of the loss that the planter sustains who does not assort his tobacco. It is the same case with Wool, to a considerable extent.

Another reason is, that the receipts of Wool have been light, and so scattered that it was difficult to get together a sufficient quantity to attract the attention of purchasers. We have found this operate so strongly that we have not generally attempted to make sale of small parcels of Wool, but allowed our receipts to accumulate; and we have generally obtained from three to five cents per pound more for such large parcels than could be had for small lots. The Wool interest of Virginia is now rapidly increasing, and we think is destined, in a short time, to become an extensive trade. Already there is a sufficient quantity grown, if concentrated to one point and properly graded, to overcome, to some extent, the difficulties referred to above. We think this can be best accomplished by a well conducted Wool Depot. This city appears to be the most accessible point for a majority of the Wool Growers in Virginia.

Being already in this trade, and having an extensive acquaintance with the producers as well as the manufacturers and dealers in Wool, we have determined to open such a Depot in this city, in connection with our present business. In order to conduct it in the most satisfactory manner, we have engaged the services of Mr. JOHN WATERHOUSE, who was long and favorably known as the efficient Agent of the late Woolen Factory in this city.

All the Fleece Wool sent to us and tub washed Wool, so far as it is practicable, will be graded, and each quality put together, unless the owner prefers that his Wool should be sold alone—in that event he will so direct us.

Our charges will be—

Commission for selling,.....2½ per cent.
Storage, grading, fire insurance, advertising and labor,.....1 cent per lb.

We shall always sell for cash, unless we find it to the interest of the owners to sell on time. In that event, we will charge 2½ per cent. guarantee. We will be prepared to cash all such sales as soon as made, deducting the interest.

We hope the establishment of such a Depot will meet with your approval, and that we may be favored with your consignments.

Yours, most obedient,
Grocers and Commission Merchants, North Side of the Basin, Richmond, Va.

CRENSHAW & CO.,

Liberal advances will be made on consignments of Wool, when required.
Genuine No. 1 Peruvian Guano always on hand, and for sale on the best terms.

C. & CO.

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. oclly

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 Holliday Street, Baltimore, Maryland.

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

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 \$5 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—tf

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—tf Woodville Depot, Albemarle, Va.

COTSWOLD OR NEW OXFORDSHIRE SHEEP.—The subscriber has for sale a number of yearling Bucks of the Cotswold or New Oxfordshire breed, which he will sell at any time when called for. This flock has been bred from some of the best ever imported, and are superior to all other breeds for large carcass, heavy fleece, early maturing of constitution, and defy all competition with other breeds for profit. The clips of the two Bucks which were imported last year weighed 17 lbs. of each, of washed wool. A lot of wethers slaughtered last March averaged, alive, 308 lbs., and when dressed for market, 206½ lbs. Gentlemen are invited to call and see for themselves, or communicate by mail. Address

WILLIAM REYBOLD,
au3t Marshmount, near Delaware City, Del.

GUANO AND WHEAT DRILLS.—We are now receiving orders for PENNOCK'S celebrated Wheat Drill, with Nelson's Guano Attachment. By the use of the Attachment, at least two-thirds of the guano is saved to the farmer, and as fine a crop of wheat is insured. We warrant the Drill to work well. Persons wishing them will please send in their orders as soon as possible.

MEADE & EACHES,
R. S. Huck's Old Stand, Fairfax St., 4 doors from King.

CRYSTAL PALACE.—World's Fair, New York, United States of America—Association for the Exhibition of the Industry of all Nations.

EXCELSIOR.

The Association for the Exhibition of the Industry of all Nations awards to **ELISHA S. SNYDER** of Charlestown, Jefferson County, Virginia, the highest premium Bronze Medal, with special approbation, for the combination he has effected, and the practical application he has given the same, in his Labor Saving Machine for Threshing, Separating, Cleaning and Bagging Grain. Hon. Theodore Sedgwick, President of the Association; Hon. Henry Wager, Western New York, Chairman; Watson Newbold, Esq. Columbus, New Jersey; Col. John W. Proctor, Danvers, Massachusetts; Maj. Philip R. Freas, Germantown, Pennsylvania; Hon. Henry S. Babbitt, Brooklyn, Long Island, acting Secretary in Class 9, Jury C.

My Patent Premium Threshing, Separating, Cleaning and Bagging Grain Machine, is for sale, which received the first premium at the Crystal Palace, New York, over all Threshing Separating, Cleaning and Bagging Grain Machines on exhibition, thus proving conclusively that simplicity in construction, cheapness in price and durability in my machine, is being fully appreciated, and the old and new costly inferior complicated Separating Machines, must yield their places to a superior Labor Saving Machine. The celebrated Machine for Threshing, Separating, Cleaning twice, Screening and Bagging Grain by one simple operation. The greatest labor saving Machine in the world for separating all pure and impurities. This Machine throws the straw to itself, the chaff to itself, the wheat in the bag, the screenings to itself, and the smut and cheat to itself. Every thing has a place, and every thing is in its place to suit the conveniences of the farmer. For simplicity, durability, cheapness and capacity, it has no equal in the world. As for what has been stated in the different papers concerning Mr. Zimmerman's Machine receiving the first premium at the Crystal Palace, New York, is false, and not true. It is also stated that Mr. Zimmerman received a number of premiums at ——— and other fairs. That I know nothing about; perhaps he did; but it is very easy to win the race, as the boy said when he ran by himself. But, my honorable friends, this was not the case at the World's Fair, New York. Mr. Zimmerman had a number of other boys to run with besides himself, which made the race more difficult for him; so much so, that he, Mr. Zimmerman, was neither first nor second; so you may judge where he was.

These are facts that cannot be denied. The undersigned would inform the public that his Farmers' Labor Saving Machine for Threshing, Separating, Cleaning, Screening and Bagging all kinds of Grain, is for sale. Farmers wishing to buy the best Machine in use, will address **JOSEPH GLAZE**, Frederick City, Maryland. Those wishing to purchase the Patent Right to manufacture the Machines, will address me at Charlestown, Jefferson County, Virginia.

ELISHA S. SNYDER.

July 1, 1854—12t

NOTICE.—**DRAYTON G. MEADE**, (late of the firm of Addison & Meade,) and **WILLIAM EACHES**, having entered into a copartnership, under the name of **MEADE & EACHES**, for the sale of Agricultural Implements, Seeds, Manures, &c., having bought out the entire stock of **R. S. HUCK**, and located at his old stand on Fairfax street, east side, between King and Prince, will continue to keep on hand a full and complete assortment of the various articles in their line of business, and will always be happy to see their friends, and all who may be pleased to give them their patronage.

**D. G. MEADE,
WM. EACHES.**

The undersigned having sold his stock of Agricultural Implements, &c., to Messrs. Meade & Eaches, returns his thanks to his friends for their past patronage, and respectfully asks a continuance of the same to his successors.

ALEXANDRIA, Sept. 1—3t

R. S. HUCK.

THE CHINCHA ISLANDS.

As many ships to our address are under charter to proceed to these Islands to load Guano, we beg to submit some particulars relative to the detention of ships and the expenses of loading.

All vessels may expect to lay out the full number of their lay days before loading is completed. A bonus of \$10 to \$15 per day, for every day saved, is sometimes paid as a gratification to officials. Most ships are kept a month after arrival, before an order is given to ballast, after which it is decided whether they are to load by lighter or by "Manguera," or shoot, by which the Guano is run into the hold.

The "Manguera" discharges from 400 to 500 tons per day. All ships dry up very much, from being exposed to a hot sun, and nearly all are obliged to caulk before leaving, unless they have been very recently caulked. Vessels should be provided with oakum and pitch, and English Caulkers can be obtained at \$4 per day and board. American coin or Sovereigns are best for disbursements—the former passing at par, and the latter at \$5 each. Captains of vessels, short of funds, can obtain money of resident Houses, if well accredited, at 6 per cent. premium upon sight bills, or draw upon their charters at 12 per cent. premium. The following were the Port Charges and disbursements for a ship of 700 tons:

| | |
|--|--------|
| CALLAO.—Stamps, \$5; Sailing License, \$11 | 16 00 |
| Tonnage Dues, 25c per ton | 175 00 |
| Clearance dues, Pisco | 4 00 |
| Com'n on Charter | 150 00 |

| | |
|------------------------------|---------|
| At the Islands | 345 00 |
| Manguera Fees, mooring | \$20 00 |
| Pilot attending | 24 00 |
| Trim'm'g Fees, 17c reg'r ton | 119 00 |
| | 163 00 |

| | |
|--|----------|
| Crew to load from Callao and back, 16 men three months each, at \$20 per month | 960 00 |
| Com'n shipping & boat hire, \$2 each | 32 00 |
| Market bill for beef and vegetables, 3 months | 300 00 |
| Water bill for the Islands | 50 00 |
| Crew shipped to go home, 16 men, at \$35 per month, 2 months in advance, \$70 each, is | 1,120 00 |
| Com'n ship'g and boat hire, \$5 each | 80 00 |
| Water to go home | 30 00 |
| Captain's expenses at Callao and Lima | 25 00 |
| | 2,597 00 |

| | |
|--|--------|
| Add for caulking ship | 200 00 |
| " " gratification to trimmers and pilots | 30 00 |

\$3,335 00

There is another charge for hire of water casks (2 cents per gallon,) to carry water from Callao to the Islands, which the charter says is to be delivered "free of expense." The water has to be bought, and if the ship has no spare casks, they have to be hired. There is also a chance of losing \$50 on the boats or lighters used in ballasting or loading, vessels arriving purchasing of those leaving and when loaded, but not always obtaining as much as they expended.

HUSSEY, BOND & HALE.

BROWN & SHOOK, General Commission and Forwarding Merchants, corner Union and Franklin streets, Richmond, Virginia. All business carefully and promptly executed.

mar—ly

UNITED STATES HOTEL,
(FORMERLY UNION,)

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

martf Price of Board, per day, \$1 50.

WM. A. BUTTERS,
BOOKSELLER AND STATIONER,
No. 157 MAIN STREET, RICHMOND, VA.

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WORMS! WORMS!!

There is no disease more common among children, and yet none which so frequently baffles the skill of the physician, as worms. They are highly detrimental to the constitution; and their presence should be carefully guarded against by parents. On the first manifestation of symptoms, every means should be used to expel them promptly and thoroughly. McLane's Vermifuge is well established as the most certain, safe and speedy remedy ever offered for this troublesome and dangerous malady; and all who have the management of children should keep this invaluable medicine at hand. In addition to its perfect safety, it never fails to produce the desired effect.

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

LIVER COMPLAINT.

This dangerous and often fatal disease had long baffled the skill of the most eminent physicians, when the discovery of Dr. McLane's Liver Pills solved the difficulty, and presented to the world the great specific for that complicated malady, which has attained such widely spread celebrity for its certainty of cure. This successful remedy was the result of many years' study, in which the symptoms were narrowly observed, and are thus described by the Doctor himself:

"SYMPTOMS OF A DISEASED LIVER.—Pain in the right side, and sometimes in the left, under the edge of the ribs—the patient being rarely able to lie on the left; pain sometimes under the shoulder-blade, frequently extending to the top of the shoulder—often mistaken for rheumatism in the arm; sickness of stomach, and loss of appetite; bowels mostly costive, but sometimes alternate with lax; dull, heavy sensation in the back part of the head; loss of memory, with uneasiness of having neglected something; sometimes dry cough; weariness and debility; nervous irritability; feet cold or burning, and prickly sensation of skin; low spirits, lassitude, with disinclination to exercise, although satisfied it would be beneficial. In fact, patient distrusts every remedy."

Have you any or all of these symptoms? If so, you will find a certain remedy in Dr. McLane's Pills.

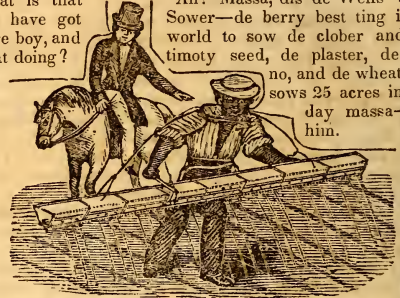
Purchasers will be careful to ask for Dr. McLane's Celebrated Liver Pills, and take none else. There are other Pills, purporting to be Liver Pills, now before the public. Dr. McLane's Liver Pills, also his Celebrated Vermifuge, can now be had at all respectable Drug Stores in the United States and Canada.

For sale by
nott

PURCELL, LADD & CO.
Corner Main and 14th streets, Richmond.

READ, CONSIDER AND ACT WISELY
IMPORTANT TO FARMERS!

What is that you have got there boy, and what doing?



Ah! Massa, dis de Wells' Seed Sower—de berry best ting in de world to sow de clober and de timoty seed, de plaster, de go no, and de wheat. sows 25 acres in one day massa—try hinn.

It is only by the use of valuable improvements that we can reasonably expect to keep up with the age in which we live, and public opinion everywhere has placed M. D. Wells' Improved Patent Seed Sower in the first class of agricultural implements. The above drawing exhibits it in use, and any ordinary mind must at once be impressed with the certain conviction that it is an indispensable implement of husbandry, and that every good farmer should have it. By its use you save time, which is money and labor which costs money, and experience in using it proves you will not be driven from the field unless by very rough weather, and the almost mathematical precision with which the seed is distributed, compared with hand sowing, renders it self-evident in the opinion of the best farmers that a saving or gain of two dollars per acre is made in two crops of grass and the succeeding crop of wheat, one year's interest on an acre of land at \$33½, and sowing three acres pays for a machine with lid at \$6.

The first premium was recommended for this machine at the late Virginia State Fair, and four of the committee (all having use for it) engaged one each; and we think it governed by your interest you will do likewise.

MOTT, LEWIS & WILLSON,

Sole agents for Richmond—Agricultural Implement Store, No. 36, Main Street.
fe—tf

MERINO SHEEP.—Having increased my flock of Merino Sheep on my farm, in Orange county, to over 800 Lam 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—tf 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—tf North side of the Basin, Richmond, Va.

M'CONNELL & BURTON,
DENTISTS,

Main Street, between 9th and 10th Streets, Richmond, Va.

JOHN M'CONNELL.
ap—tf

W. LEIGH BURTON.