

THE

SOUTHERN PLANTER

DEVOTED TO

AGRICULTURE, HORTICULTURE, LIVE STOCK AND THE HOUSEHOLD.

Office, 26 Wilkerson's Hall, Ninth Street.

T. W. ORMOND.	PROPRIETOR.
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—THE—
SOUTHERN PLANTER.

DEVOTED TO
Agriculture, Horticulture, Live Stock and the Household.

Agriculture is the nursing mother of the Arts.—XENOPHON.
Tillage and pasturage are the two breasts of the State.—SULLY.

T. W. ORMOND,	-	-	-	-	-	-	-	PROPRIETOR.
W. C. KNIGHT,	-	-	-	-	-	-	-	EDITOR.

46TH YEAR.

RICHMOND, APRIL, 1885.

No. 4.

SELF-SUPPORTING EMPLOYMENT FOR LADIES IN THE SOUTH.

This is an excellent essay, which will be the last of the Blair series published by the Planter. Its author is Mrs. Emma Bryan, of Harrisonburg, Va.

The cares of the world, the pursuit of riches, the planning of ambitious schemes, and the turmoil of business may seem to belong entirely to man's sphere, from which, heretofore, the aim of the Southern gentleman has been to shield the female members of his family; but when man, (dying, has failed in his schemes,) or the temptations and misfortunes of life have wrecked him, leaving woman helpless on the world, the cry comes, "What must she do for a support?"

Many pursuits open to *women* are deemed unfit (in the received acceptation of the word) for *ladies*, they who alone, of all human beings, are thrown suddenly on their own resources untrained and ignorant of the value of money or the labor by which it was gained. Employments of ease and gentility are few and very difficult to be obtained, but why women cannot work for money and be *ladies* as well as men under the same circumstances are *gentlemen*, is a theory formed entirely upon the usages of society and whose reasoning women alone can understand and for which they only are responsible.

It is they, themselves, who, by receiving in friendship only the comparatively idle, have placed the barrier in the way of their more unfortunate sisters that are beating out their lives against it in the vain endeavor to keep up appearances and surreptitiously "take in work" for a livelihood. No one can realize

the dragging, gnawing, worry and make-shifts of the impoverished society-lady who endeavors to keep her place. It is this erroneous idea of a *lady* which debars mother and daughters from the active part in life that they might worthily and successfully perform.

Possibly there are human beings in the world satisfied with idleness and tranquility, but is it fair that women should be condemned to making puddings, darning socks, working ottomans, or playing the piano if she has no special taste or genius for such occupations? Does she not need exercise for her faculties, a field for her efforts, as well as her more fortunate brother? Her brain stagnates from the restraints imposed by society and there are hundreds of women in silent revolt in their lot in life, who, did they dare defy its prejudices, would venture with success in the busy marts of life and show the world that *ladies* can work for their livelihood without degradation.

Not until there is a revolution among her sex can a *lady* be successful in the competing industries of the world! Why should women seek only a support and not aspire to a fortune! The truth is, that *ladies* only stoop to paid employment in order to bridge over the time until a husband for either herself or daughters shall come forward. There are women who have boldly come forth with their business and made fortunes, though the fact of their having once been "*in business*" is a pretext for humiliating either them or their daughters, if perchance they adorn society and are more noticed by their peers. Women who have made money in the South by their own efforts, have been compelled to seek the society, for which their education fitted them, in other cities where the fact of their once having been in business would not militate against them. Why labor should be derogatory or why a woman and her children in the mercantile trade are not as respectable as a man in the same business, is a mystery passing the comprehension of man and can be solved only by the woman herself who spurns with contempt the "work-woman" that helps adorn her, who is far superior to the gay butterfly passing her days in dressing, dancing, tennis, and beaux. One understands that the nobility of Europe can look down upon the *bourgeois* or tradesman; but in America, where there are tradesmen and mechanics in every family, it is necessary to say with "Lord Rainford," (Howell's *Woman's Reason*), "The distinctions you Americans make in regard to different kinds of trade rather puzzle me. I don't see why cotton-spinning should be any better than shoe-manufacturing, yet I'm told it is; but if people go into trade at all, I don't see why they should'nt where they are all *commoners* together, go into one thing as well as another."

There are "*lady pirates*" living luxuriously who would not, "for worlds," have it known that they "take in work," crochet, embroider, make articles of apparel for their colored washerwomen to sell, or paint for the decorative shops at any price in order to gain a little extra money for some coveted bijou of extravagance thereby cutting the prices of work so ruinously that the *honest* toiler, who forced to work for self-support, is compelled to do it at the same rates and is the one who suffers from the money greediness of her *superior* (God save the mark!) sister.

Woman, in these latter days, through the evils of intemperance, is thrown more upon her own resources, and as she recognizes herself a factor in the world's work and begins to show an interest in politics whilst she struggles with her brothers in the battle of life, perhaps she will learn independence, and as she sits beside her brother in the public school and polls her vote beside his, *he* will recognize that *her* work deserves as much respect as his, and that *her* place in the world is equally as important, then will these silly ideas of *caste* which have so much imbued the minds of *ladies* be eradicated. It is for this, that the working-women are battling, not that political enfranchisement will make *every* woman the equal of man, but that woman's work may be equally remunerated and *respected* is the object for which the female-suffragists appeal; "the ballot in her hand will help mightily in the struggle for existence when thrown upon her own resources." That woman is the equal of man, no one will assert, who understands her physical development. Man's structure being stronger, of course the different portions of his body may be more fully developed, therefore he can endure harder and prolonged labor and having a greater proportion of brain pursue his studies more closely and continuously. Man need not be afraid in granting co-equal education and enfranchisement that woman will deprive him of his work or emoluments; with the greater number it will be like the she-goats in the fable "who having obtained from Jupiter the favor of a beard, the he-goats sorely displeased made complaint that the females equaled them in *dignity*." "Suffer them," said Jupiter, "to enjoy an empty honor and to assume the *badge* of your nobler sex, so long as they are not your equals in strength and courage." It is for the exceptional cases of talent that women want recognition and for the mass that they desire the *badge* that will give them *equal dignity*. In all ages we have seen that women can be the peer of man in every path of life; recall Artemesia, the female admiral of Xerxes; Zenobia, Queen and Commander; Joan of Arc, who led the defeated French to victory; and a woman is said to have planned Sherman's "March to the Sea." In statecraft Queen Elizabeth, Isabel of Castile, Catherine of Russia, Maria Theresa of Austria. The hosts of female artists and sculptors from the earliest times are represented to day by Rosa Bonheur, Mary Halleck Foote and Harriet Hosmer. In architecture Sabina Von Steinbach assisted her father and also executed the ornamental work of the Great Cathedral of Strasburg. Even in brigandage, Onarata Rudiana was famous as the successful Captain of the Condottieri. In the present day many women equal their brother professors of language, science, and literature; and now that the colleges have thrown wide their doors, women will be found making strides in physics, delivering scientific lectures, becoming members of the Academies of Science, writing books like Charlotte Brontë, George Eliot, Miss Mitchell and Mary Summerville, that will stand forever in the world's literature.

The Reformation, with its two hundred years of war, narrowed woman's sphere by confining her to domestic duties and field drudgery. Exposed to the brutalities of the hordes that were ravaging Europe, men saw their women endangered, and in defending them, learned to protect their daughters as though

they were something very silly and frail, whilst boys were turned loose on the world as if they, of all beings, were the wisest and least liable to be led astray.

Girls are taught that they should do nothing that other ladies in *their circle* do not do, the world would frown upon them,—“a woman should never be talked about.” “She must walk through life, drilled on exactly the same pattern as her sisters, with sober mien, unruffled temper, eschewing all feeling,—mending socks, making baby-clothes, scolding servants, obeying her husband;” *always at home* ready to greet him with a smile, no matter in what fault-finding temper he may be. To be sure, all this fills the passing hours, but does it fill her life and satisfy her mind even if happily married, and how much worse such a round of inane duties for a spinster!

Those men, who boast of their chivalry, describing woman as “a tender plant, a thing of fancy, a dew-drop ready to melt at the sun’s burning glance, an ethereal being fainting at the sight of a mouse or overpowered by the rattle of a window, too tender to cope with man in the rough battle of life,”—a thing to be shielded from temptation, they are the chivalrous knights who advise her to “swap off her silks and satins for lawns and calicoes; shut up the piano and dive into the wash-tub;—throw away the fancy needle work and tackle the husband’s old breeches; put down her painting and get her color over the kitchen stove.” If ladies are so frail and delicate, how can they manage to do the work of a strong drudge? Let a man try for one day the wash-tub, ironing-board and cooking-stove and see how *fresh* and *smiling* he will look at the supper table. It is this same “delicate dew-drop and tender plant” that the man of chivalry, who prates of “breaches of custom” and “woman’s sphere,” marries and ill-treats, as he comes reeling home from speech-making, trusting to her womanly instincts to bear and never divulge. It is this same “frail house-plant” that he consigns to the nursery and kitchen whilst he parades the streets in satin cravats and broadcloth, wearing out her life and strength in drudgery, and dying, leaves her to penury and want, too truly a frail, delicate, broken reed. It is then when thrown on her own resources, when untrammelled, she can think her *own thoughts*, comes the flash of truth that she was born for better things, and too late, her strength and energies exhausted, finds that she is incapable of coping with the stronger sex, is compelled to take the inferior place of an ill-paid seamstress or worn out boarding-house keeper. For what else is she fitted? Had she been educated and trained for some lucrative employment, as her brothers are, and then placed it aside to minister to the man she loved, there would always be the happy thought, “I am ready to protect myself and children in any emergency,” but instead, *woman is taught too many things and none thoroughly*; she is content, when she has to earn her livelihood, with mediocrity, learning just as little of a trade as will keep her in a situation; a kind of make-shift until the husband for whom she has been perpetually on the look-out, rescues her from the ignominy of working for a living to make her, perhaps “a lady,” or more often, a household drudge.

If a woman chooses a profession she would make it a part of herself, fitting

herself for it so thoroughly, that she would be loth to relinquish, even for the lover, who swears to "protect, love and cherish her. Men whose professions absorb their whole lives to the entire exclusion of household duties, are not always great, then why require more excellence in a woman who, often, has to divide her profession with her family cares, which if neglected would bring down upon her the scorn of all mankind. A man may leave his family for years, on business pretexts, but a *professional* woman dare not for a day, even though her success be for the benefit of posterity. House-keeping even can be carried to excess. Many a notable housewife has made her children miserable and neglected their morals in the one great endeavor to keep a *clean* house. Not a toy, not an atom of dust, not a string or shred, no fly-specks, every chair in its place and every curtain in its proper fold. Is not too much devotion to one profession as bad as another? What is reprehensible in a *woman* should be equally so in a *man*.

If woman is not the equal of man in work which requires continued strength, as that of the machinist, she is well fitted for the arts and sciences, and though she is ashamed to see her name in juxtaposition with the words *Dress-Maker* or *Milliner*, there is no business conducted on a large scale more independent, beautiful and lucrative. Why are not the daughters of "Mrs. Smith, Dress-maker," when equally educated, as respectable as those of "Mr. Schaefer, Fashionable clothier," or the daughters of "Mrs Brown, Milliner," as good as those of "John Jones, Hatter?" Is it possible that those women, who have risen to the head of their professions, are not as well educated and refined as those men who served their apprenticeship? It would be a good thing to see *ladies* dispensing their wares, speaking the purest refined English, adding to it the benevolence of training the young girls of their employ in the virtuous paths of life.

Woman's non-success in business is owing to the contempt she feels for the work necessity has compelled her to "stoop to," and the determination to save her daughters from the contamination of it. "*Conventionality makes cowards of the best*" of them. No milliner allows her daughter to trim a bonnet or stand behind the counter; no dress-maker permits her daughter to fit a customer, and a boarding house keeper would be shocked at her daughter laying the cloth or sweeping a boarder's chamber. Such is the inconsistency of women! How are they to succeed in any business with such prejudices? The "*Private Boarding-house*" seems, to day, the only resource of decayed gentlewomen, yet it is ten times more degrading in its drudgery, the poor pay and insulting demands of the boarders than any other business in which women can engage.

The general business success of the Jews as a class is to be attributed to the unity of the family—each one, wife, daughters and sons understand and help in the work and know its profits. Women, even without education, have been successful merchants—what more fitted for them than Jewellery, China, Fancy and Art Stores. Hundreds of clerkships are awaiting them when they are ready to be thorough and interested in their work and willing to be tabooed the society of the ignorant who think themselves superior to the female clerk, yet are will-

ing to ogle and flirt with the masculine clerk at her side. Clerkships in the State Departments, Librarian or Amanuensis are considered a little higher in the social scale, but they are few and not easily obtained. Telegraphy, Type-setting and Writing, Steonography, Decorative Work, Music, Teaching and Journalism are opened avenues for self-support. Photography offers a wide, pleasant and refined field for her labor, in which she can combine art with work and maintain her dignity in beautified "Art and Photograph Parlors."

There is no reason why women, especially those who have had experience in self-support, should not educate daughter as well as son for a profession and eradicate from her mind the idea of acquiring accomplishments only to "*show off*" in order to get "*a good catch*," because money making employments are considered derogatory in "*good society*." Accomplishments make her a "cultivated, agreeable girl, with bright talk on all sorts of pleasant subjects—merely and entirely a lady—the most charming thing in the world but the most *helpless*." Marion Harland, Virginia's author and matron writes,—“So far from the election and study of professions by woman acting unfavorably upon domestic life, I believe firmly, after a tolerably fair examination of arguments and examples on both sides of the question, that the highest and purest interest of the home are promoted by these. She, who need not marry, unless won to the adoption of the state of wife by pure love for him who seeks her, is likely to make a more deliberate choice of a husband than she who has done little since she has put on long clothes but dream and long and *angle* for her other half.”

Excepting Art and Literature, in which artists and authors "are born nor made," there is no self-supporting employment in the city for ladies which does not require them to go abroad to daily labor or mix in offices with men, but in a country life, with a great deal of energy, a will to command, and the strength to oversee, as well as perform when requisite, there is every thing for woman's profit.

Silk culture, bees with their honey, the market-garden, dairy and fruit business are all employments that ladies can supervise as well as personally engage in. To-day, one of the best farms in Rockingham county is managed by a lady, who sells her produce and supports handsomely her four children. Many ladies are successful cotton planters farther south. It was no uncommon thing in former days to see a Virginia matron, (whilst her husband attended to the affairs of the State) not only managing the whole farm, overseeing the seeding, planting, etc., but superintending the house-keeping, the dairy, the weaving, dyeing, sewing and ministering to the sick, as well as supervising the morals of her negroes.

A small capital is requisite for any occupation on a farm and the enterprise, par excellence, for ladies of small means, is that of raising poultry for the markets. "No alchemist ever produced from furnace or alembic so rare a treasure as you may obtain from the entrails of your hens, if you only know how to combine labor with delight." With a few acres of land and a large stock of hens they can easily be made to yield not only a support but a compe-

tence—a little farming must be added to the care of the poultry for corn, oats, grass, sun-flower and hempseed, cabbage, lettuce, potatoes, and every thing that is necessary for the usual food of poultry must be cultivated. There is money in saving the feathers of the fowls dressed for market, to say nothing of the eggs and the pleasure of watching the anxious mother hen with her brood, the pretty little downy creatures obedient to her every call. Any interested woman can soon learn the culture of poultry, whose greatest foes are thieves and vermin.

Let woman first learn that in honest, virtuous labor there is no degradation, and that for success she must have “a holy purpose and aim in life for which she should train herself and fight like Sir Galahad and the other knights in quest of the Holy Grail.” Throw aside the old conventional prejudices of society and “whatever thy hand findeth to do, do it with thy might;” show by example, that in labor there is no deprivation of *caste*. “Be brave, self-reliant gentlewomen, afraid of nothing but dishonor, not fearful of small indignities or of other people’s opinions. Find what your one great talent may be, whether it is cooking, house-cleaning, dress-making, bonnet-making, farming, merchandizing, or professional work and take up that work, go through it with all your heart and strength,” then, and not until then, will self-support be a success and woman will find no degradation in honest labor.

ROCKINGHAM.

THE NECESSITY AND RIGHT USE OF MANURES.

[For the Southern Planter.]

While soils remain covered by unbroken forests or prairies, they not only retain their fertility but actually grow richer from year to year. The vast amount of nutritive matter annually absorbed is ultimately returned with interest. In the forest the leaves and broken twigs and eventually the branches, trunks and roots give back not only what they have received, but much in addition which they have drawn from the atmosphere. On the prairies the luxuriant growth dies down each year, and adds very largely to the original matter which it abstracted by its rapid growth.

The productive power of soils subjected to cultivation is gradually exhausted by that process. Some of the alluvial lands of Virginia produced large crops of corn and tobacco for more than a century, without any return being made to them for the elements of fertility thus abstracted and these lands thus cultivated are now so poor as to be nearly valueless, but if the plan of rotation of crops, manuring, or resting the land in grass, had been pursued, what different results would have been attained, and how very much richer the whole State would be now, and unless the farmers of the Great West and other newer portions of our country profit by the experience of the farmers in the Eastern States their land will become exhausted in the same way; and

there is no doubt that the realization of this fact is to some extent causing the tide of immigration to turn its attention to the lands of the Southern States, or States that are nearer our great market centres than the rich prairie lands of the far West, as all good farmers know that by a proper system of farming land that has produced good paying crops, can be made to do so again. In the State of New York statistical tables prove that the yield per acre of the cultivated land has decreased considerably since 1844, when the records on which these tables are founded were commenced. In corn the decrease is nearly four bushels per acre, in wheat nearly two bushels per acre and in potatoes twenty-two and a half bushels. The falling off would have been much greater had not deeper tillage, and a better system, and knowledge of agriculture furnished a partial offset to the decreased fertility of the soil.

The fruitfulness of a soil is decreased or increased according to inexorable laws. With each crop that is taken from the ground a greater or less amount of fertility is removed, and if this process is continued year after year ultimate barrenness must result. There is no remedy but that of supplying, in the form of manures, what is thus taken away. The farmer must feed the land which feeds him, and so many others, or in the end, all must starve together. I will now endeavor to give a short description of the different manures, and in order to do so have arranged them in three classes, vegetable, animal and mineral.

Vegetable manures are not so energetic in their action as those of animal or mineral origin, but they are much cheaper and more durable in their effects, and the wise farmer will avail himself largely of the means of benefitting his soil which they afford. Plowing in green crops, such as clover, cow-peas, buckwheat or corn is one of the best modes of renovating and sustaining a soil. Wornout lands which are almost unsalable, can by this means be brought up to a high state of fertility and at the same time be made to remunerate the farmer for the outlay of labor and money by the crops that can be produced in the meanwhile. North of the Carolinas, clover is as a rule found to be best fitted for a green manure, but in some cases there are other special crops that can be used to a greater advantage, as for instance on all light lands, the cow pea will produce a much heavier crop, and act much more beneficially than clover will, while on heavy lands clover is by far the best. At the South the cow-pea or bean is considered far the best. The advantages of green manures consist mainly in the addition of organic matter which they make to the soil. This matter aids in the liberation of those mineral ingredients, which are there locked

up and which on being set free act with so much advantage to the crop. The roots also exert a great power in effecting this decomposition, and their agency is far more efficacious than the intensest heat or the strongest acid in persuading the elements to give up for their own use what is essential to their maturity and perfection. By substituting a crop for a naked fallow we have all the fibers of the roots throughout the field aiding the decomposition which is slowly going forward in every soil. Clover and most broad-leaved plants draw largely for their sustenance from the air, especially when aided by the application of plaster. By its long tap-roots, clover also draws from the subsoil in solution such saline and mineral matter as are necessary for the maturity of the plant, which when utilized in the surface soil adds much to its fertility. The proper time to turn in all crops used as a green manure is at the season of blossoming, as in the green state the fermentation is rapid and by resolving the matter of plants into their elements, it fits the ground at once for a succeeding crop. Straw, leaves and vegetable refuse, are readily decomposed by the addition of a small quantity of animal substance, or lime, and should be carefully composted, as they will add very much to the quantity of nutritive matter collected under the form of manure in a year. Turf, muck, mud, the cleanings of old ditches, etc., are very rich in vegetable matter and are exceedingly valuable to the farmer for use in composts and should be much more used and appreciated than they are now.

Animal manures comprise the flesh, bones, blood, excrements, etc., of animals. They contain more nitrogen than vegetable manures and are far more powerful. The standard manure of this country is stable manure which is composed of the excrements of the domestic animals. Of these that of the horse is the most valuable in its fresh state, but is very liable by fermentation to lose much of its value. A good sprinkling of salt occasionally will prevent this loss and add very much to its manurial value. The manure of sheep is next on the list, while that of the cow is of the least value, as the enriching substance of her food goes principally to the formation of the milk. The value of each of these manures varies with the food and condition of the animals from which it is obtained; the manure from well-kept cattle being far more valuable than that from those which are poorly attended to. All the urine of animals should be preserved when possible, as it is very rich in nitrogen and the phosphates, and some writers on agriculture maintain that its value if properly preserved and applied is greater than that of the dung. From an experiment made a short while ago, it appears that in five months each cow discharges urine, which when absorbed

by loam furnishes manure enough of the richest quality and most durable effects for half an acre of ground; or to put it in other terms, the urine of three cows for one year is worth more than a ton of fertilizer, costing from forty to fifty dollars, and there are various methods by which this manure might all be saved if the intelligent farmer will only set his wits to work in a proper manner. One simple way which I have observed, is to obtain a supply of soil in dry weather and to store it away in some shed or outhouse, and use it as an absorbent under the bedding, removing the soil to the compost heap as often as it becomes necessary. But the waste of manures is not confined to those of the liquid form: stable manure is often left exposed to the action of the weather and to ferment until the greater portion of its most valuable elements have disappeared, and as it is always desired to retain these fertilizing elements, it should be sheltered from the sun and rain, and fermenting heaps so covered with turf or loam, as to prevent the escape of the fertilizing gases. Plaster will help very much in retaining the ammonia, which is one of the most necessary elements of plant food.

The manure of all poultry should be carefully preserved, as it is extremely rich in nitrogen and the phosphates. Professor Norton says that one hundred pounds of this material that has not been exposed to the rain or sun, is equal in value to five or six loads of stable manure. It must be kept dry, reduced to powder and applied as a top dressing or else formed into a compost with some matter to act as an absorbent.

The flesh of dead animals, and the blood and offal from slaughter houses are among the most powerful of fertilizer; and yet it is not uncommon to see horses or cattle that die from disease drawn out in the woods or fields to decay on the surface of the ground. Every animal that dies should be made into a compost at once by covering with a few inches of turf or loam, as by that means decomposition goes on without the loss of the fertilizing elements, and a manure of the most valuable kind is produced.

The value of bones as a manure is undisputed and they are beginning to be appreciated as they deserve to be by our farmers. They contain some of the most desirable and efficacious of the fertilizing elements required by plant life, and no thoughtful farmer should suffer them to be wasted about his house. One simple way of making bones available as a fertilizer is to take sulphuric acid and dilute it with three times its bulk in water; Then place the bones in a tub or barrel and pour in the acid as diluted upon them. After standing a day another portion of the acid may be poured on, when they will be found to be

dissolved into a kind of paste, which is best applied by mixing thoroughly with earth, ashes, dried muck or some such matter.

Mineral manures include lime, marl, plaster, salt, ashes, etc., These are very useful in supplying any inorganic matter that may be required to improve the fertility of the soil and are also very valuable to improve the conditions a soil may be in.

Lime is applied to land in three different states—as quick lime, slaked lime, and mild or air slaked lime. To cold, stiff, or newly drained land it is best to apply quick or slake lime, while on light soils, mild or air-slaked lime is most beneficial. It is best to apply lime frequently and in small quantities, so as to keep it near the surface and always active.

Marls are chiefly valuable as a fertilizer on account of the amount of potash and carbonate of lime which they contain, and act very beneficially on light sandy soils.

Plaster is one of the most powerful mineral fertilizers known, acting both as a direct food to plants, and also absorbing gases and making them available to plant food. When scattered over compost heaps, it will absorb the ammonia, and prevent the escape of it, and other fertilizing gasses. It is very beneficial when applied as a top-dressing to grass and clover lands, but should always be applied in wet weather or while the dew is on. It can also be used with decided advantage on potatoes, collecting the moisture and preventing them from rotting after they are planted, and in fact can be applied advantageously on almost all crops, and should be used liberally by every intelligent farmer.

Common salt has been in use for ages as a fertilizer and its great value can not be disputed. As an ingredient in compost it is invaluable and operates on the soil with an influence which can be produced by no other stimulant, mineral or vegetable. It is very beneficial as a top dressing for wheat and grass lands, especially those of a loamy texture.

Ashes are composed of the entire inorganic parts of plants and their great usefulness as a manure is evident and undisputed. The ashes from different trees differs materially in composition and value, but all are highly useful applications to every kind of soils and crops. Coal ashes are less valuable than wood ashes, but are by no means to be neglected by the farmer, being very useful, especially on stiff soils.

In conclusion, let me say that every farmer can have the means of enriching his farm and himself if he will only obtain a knowledge of the way to make manure, to save manure, and to properly use manure.

HENRY W. WOOD.

Richmond, Va., Feb. 24, 1885.

HOW PORTIONS OF THE FARM MAY BE PROFITABLY USED FOR GROWING FRUITS AND VEGETABLES.

READ BEFORE THE FARMERS' CONVENTION OF MARYLAND, HELD AT BALTIMORE, FEBRUARY 24, 1885, BY PETER HENDERSON, JERSEY CITY HEIGHTS, N. J.

An experience of over thirty years as a Market Gardener and Seedsman has given me opportunities for observation that enables me to speak understandingly on this subject. I believe it is safe to say that, of my own knowledge, there are hundreds of farmers in nearly all parts of the country each season who strike out from the old stereotyped crops of the farm, into growing a few acres of either fruits or vegetables, and in many cases both, and not a few have abandoned the farm as a farm entirely and have devoted their whole energies to the growing of fruits or vegetables. Last week, I had a visit from a man living in the vicinity of Rochester, N. Y., who came to thank me for advice given him a dozen years ago in this matter, when he timidly made the attempt of growing half an acre of his 50 acre farm in vegetables for a village market. His venture was so satisfactory that he gradually increased his area, so that he has 30 of his 50 acres now used mostly in growing early Cabbages for the Rochester market. He further informed me that his net profits from the Cabbage garden was last year \$6,500 or a little over \$200 per acre, and that it was not a very good year for cabbages at that. We market gardeners in the vicinity of New York would not be content with a profit of \$200 per acre on our high priced land, but it would be more than satisfactory to most farmers. Another marked case where a farmer in Maryland has been cultivating for six years past over 100 acres in Cantaloupe Melons, which are sold in New York at prices that give him over \$5000 a year profit, from the same land that in Corn and Wheat did not net him one-tenth of that sum. Another instance came under my personal observation last year. A college bred man of 28, failing in health from office work, purchased a farm of 60 acres at Northport, L. I., three years ago. The second year he tried a few acres in vegetables and small fruits, which he found sale for in the village of Northport at most satisfactory prices. I was on his farm in the summer of 1883, and I must say that a man who had got his knowledge almost entirely from books, his venture looked as if it would be a complete success. I will say however that he buckled up his sleeves and worked from sunrise to sunset. I have but little doubt that he will yearly increase his area for vegetables and fruit, and that his farm, like hundreds more of those on Long Island, will be eventually converted into a market garden for vegetables and small fruits.

The now famous Celery growers of Kalamazoo, Mich., were less than twenty years ago nearly all farmers, who could hardly make ends meet. Now the profits derived from the culture of Celery have made many of them comparatively rich, that is rich for tillers of the soil, for few such make mammoth fortunes, but we get added riches usually in vigorous

health and placid minds. In a paragraph from the Philadelphia *Ledger* of last week I find the following in relation to Celery growing in Kalamazoo, Michigan: "What was a dozen years ago a swamp is today a vast Celery field, beside which a hundred acre lot is but a garden. The shipping season begins in July, increases until the holidays, then gradually decreases until the crop is disposed of in the spring. Fifty tons daily are now being sent out, and the crop of 1884 will reach 5,000 tons. Twenty thousand stalks are raised upon an acre of ground." This is a very moderate estimate of the number of plants per acre and it is probably one-half more, as we grow nearly 30,000 plants per acre, which averages 2c. per root wholesale, or a product of \$600 per acre. The 5,000 tons shipped from Kalamazoo bring probably \$150,000 annually.

Another case in point which has been communicated to me by a friend is as follows: His farm, in Pennsylvania, adjoined a village of 2,000 inhabitants. He had one year a large surplus of strawberries and sweet corn, and had many applications for the fruit and the corn by the village people. He conceived the idea of employing a man with a wagon to supply this unexpected demand in the village, and sold the whole of these products at such prices as paid a clear profit of \$175 per acre, which was about five times as much as the average value of the farm crops. In addition, the sale of the strawberries created a large demand for cream, which was equally profitable. No doubt this example could be followed in the neighborhood of nearly every village in the country.

It is not advised that any farmer should in the beginning embark largely in growing vegetables and fruits. Nearly all who have been most successful are such as those who, like my Rochester friend, started with a small patch, increasing the area as his means and the demand for the products justified. Those who can most advantageously use their farms for the culture of fruits or vegetables are such as are located near towns or hotels or summer boarding houses, for the fruits and vegetables usually furnished to such places, when furnished at all, are such as are shipped from the large cities after passing through the hands of commission men—who of course must make their profit—and are usually furnished in a stale and battered condition, costing three times more to the consumer than the original grower gets. As a matter of fact the vegetables and fruits usually served at first class hotels and fashionable summer boarding houses 50 or 100 miles from New York, where the guests pay \$3 and \$4 a day, are no better than those to be found in the cheapest restaurants in the larger cities, though they cost the proprietors three times as much, and which they could in the great majority of cases get grown for half the money and served fresh from the ground daily. In a paper necessarily as short as this must be, no details of operations can be given, nor is it necessary, for all that need be said on these subjects have been given in the books on fruits and vegetables long since published. I will merely give a few leading instructions of the best conditions, and to do this I will take the liberty to quote from a work that I have just written: "Whenever choice

can be made the land used for such purpose should be as level as possible, and be of a nature what is known as a sandy loam; that is, a dark colored, rather sandy soil, overlaying a sub-soil of sand or gravel. All soils that have adhesive clay for their sub-soils are not so well suited for fruits or vegetables, besides requiring at least double the amount of labor for cultivation. Above all things necessary to success in growing either vegetables or fruits is manure. It may be laid down as a settled fact that unless manure can be obtained in sufficient quantity the work is not likely to be half as remunerative as where plenty of it can be had. The quantity of manure used per acre by market gardeners around our large cities is not less than 75 tons per acre each year, and if barn-yard manure is not accessible, concentrated manure, such as bone dust or superphosphates, should be harrowed in the land after plowing at the rate of not less than two tons per acre, if no other manure is use." Such large quantities of manure per acre will no doubt be appalling to the average farmer, as it is no unusual thing for a farm of 50 acres to get no more than we market gardeners put on a single acre; but every one who has had experience in growing vegetables or fruits knows that the only true way to make his business profitable is to use manure to the extent here advised. It is safe to say that the average profits to the market gardener in the vicinity of our large cities, where he sometimes pays as high as \$100 per acre annually for rent, is at least \$300 per acre. The usual amount of ground cultivated by market gardeners is ten acres, and they think it is a poor year when their profits from that amount of land do not average \$3,000 and that too when nearly all the products are sold to wholesale middlemen, in large quantities, and which before reaching the consumer, costs him at least double the original price paid. The farmer in most cases growing vegetables or fruits has a great advantage in selling direct to the consumer, and the small amount of land necessary for growing these crops will cost him comparatively little, so that with proper attention I think there is every inducement for many farmers to add this profitable branch of their farm operations.

The kinds of garden products that would be found most profitable would be I think in small fruits, Strawberries, Raspberries, Blackberries and Grapes. In vegetables, Asparagus, Beans, Peas, Beets, Cabbage, Celery, Sweet Corn, Cucumbers, Melons, Radish, Spinach, Squash, Tomato and Turnip. Much will depend on the locality what is best to grow. If grown to ship from a Southern point to a Northern one, then such vegetables as Asparagus, where there is a great deal of value in proportion to bulk, is the most advantageous to grow. I remember a case of one of our New Jersey farmers, a shiftless sort of man, who never could make ends meet here, fell heir to a few hundred acres near Atlanta, Georgia. He had been near enough while living in Jersey to get a knowledge of how to grow Asparagus, and planted about an acre of his Georgia farm with it. He sent his Asparagus to New York, to the same commission firm that sold my vegetables and realized nearly \$1.00 per bunch for his whole crop, which was about 10 times the price paid for Asparagus grown in this vicinity. The climate

of Augusta was probably not so suitable for Asparagus as that of New York or New Jersey, but nevertheless the extraordinary price he got amply made up for deficiency in crop. He told me that from 1857 to 1860 his acre of Asparagus netted him a clean profit of \$1,500 per acre. Asparagus has ever been one of the safest vegetables to grow with us, for it is rare indeed to see the market glutted with it. The reason is obvious; it takes at least three years even under the most favorable conditions to get a full crop of Asparagus from the time the seed is sown. Few cultivators can afford to wait so long for results, and hence less competition. As I have before said, it has a greater value in proportion to bulk than almost any other vegetable. Five-hundred Cabbages of good size will make a load and sell for \$30., but 2,000 bunches of Asparagus will be about the same bulk and weight and average \$200 per wagon load. The Asparagus which supplies New York is grown principally on Long Island, the beds when once established giving annually net profit of from \$300 to \$400 per acre.

Of the varieties of the different kinds of vegetables or fruits, I will say nothing, as the kinds of one location may not always be suitable in another. A good rule where you go to a Nursery, Seed or Implement Warehouse, if you are not well posted, is to ask the clerk what kind he sells the most of, be it fruit plants, vegetable seeds, or implements, and you will be safe to choose such, if you have no particular choice, for it is most invariably the case that the general public find out what has most merit, and such too as would most likely be suited for most locations.

HULLING AND CLEANING CLOVER SEED.

Editor of the Southern Planter,—During this bad weather I have been hulling clover seed by an entirely new method to me, and as I find it very convenient, there being no hullers in this vicinity, maybe my experience may be of benefit to some of your readers who have small crops to thresh and cannot obtain a good huller. I had the seed cured as clover hay, not rotted at all, but well dried, then threshed by a common wheat separator, which did not get the seed out of the chaff or hull, but only separated the pulp from the straw. The pulp is then run through a "Young America" corn crusher which hulls *every* seed and cracks none. I adjust the mill so as to make the grinding plates run about one quarter of an inch apart, so it is not possible to crack the seed at all. A boy with a quick horse can hull two bushel of seed in a day and no labor to the horse, except the walking, as a man can easily pull the mill. After the pulp is run through the mill it is fanned out as any other seed. With the mill under shelter the work may be done on rainy or snowy days when the team is otherwise idle. I thresh my seed in the summer and store the pulp away in the barn to be ground out

when hands and team are not so busy. I find it is much better than buying seed, especially when I have known them to sell for twelve or fifteen dollars per bushel. You may not be afraid of damaging this huller by running gravel through it, as it will surely grind them to powder without injuring the delicate (?) machinery. I have also hulled millet seed by the same process. Don't you think I could obtain a patent on this?

Very truly yours,

C. W. G.

Red Hill, Va.,

SWEET ENSILAGE.

[For the Southern Planter.]

The production of ensilage is, I find, still on the increase, both in this country and England. There are estimated to be over one thousand silos in America and over seven hundred in England and they will continue to increase, there is no help for it. When a man sees his neighbor use ensilage and finds there are so many advantages to be gained in its use he will be sure to fix up a silo and try it too. Then there has been so much found out by practical experience, that it has gotten to be as safe an investment as any other thing a farmer can do. A man no longer cuts his fodder-corn down half grown and expects it to make good ensilage any sooner than it would make good dry fodder, for both it is worthless; but waits until he can find ears of soft corn in it fit to eat, and then he is safe in cutting it into ensilage. I, for two years, cut and hauled my corn directly from the field to the pit and cut it up as fast as I could, covered and weighted as soon as possible, but I found it very acid when I began to feed it, so I concluded if some of the top could be gotten rid of, it would be better, and for the last two years I have cut my corn down and shocked it up, and let it stand for a week, and then hauled it to the pit, cut it up and put it in, only tramping it with one man, who stays in the pit to level it. I also took my time in hauling it up, frequently hauling one day and cutting up the next; in this way it heats slowly and never gets very hot; the highest was only 90 degrees F. The mass is not wet but only damp, and when opened it had a smell like good cider and no acidity at all, and my animals ate it ravenously; they are eating nearly as much again this winter as ever before. If the weather is as dry as it was last fall I think three or four days would be long enough to let it dry, but if seasonable weather one week is not too long. All this talk about letting it get to 130 or 150 degrees before closing up is, I think, useless. I put on stone for weight about one foot deep. Last winter I fed two mares on ensilage all the winter—two feeds of half bushel

each daily, and let them run in a lot and eat straw during the day, and they are kept very fat. They had no grain at all. My beef cattle do better with two feeds of ensilage daily and four quarts of hominy, than they did with dry corn fodder or hay and eight quarts of hominy. I don't see now how I could do without ensilage in Winter.

Manchester, Va.

F. GUY.

CROWDING WHEAT.

Prof. Blunt, of the Colorado Agricultural College, states in a late paper that in 1875 he planted $7\frac{1}{2}$ pounds of hand-picked wheat on an exact square acre, in rows eighteen inches apart, and at harvest threshed out 67 bushels. In 1880 he planted on 40 square rods 32 ounces of fine selected wheat, and the product was 18 bushels, or nearly $72\frac{1}{2}$ bushels per acre. The same year, on 76 square feet, he planted 76 kernels of extra fine seed, weighing 45 grains, and the product realized was exactly $10\frac{1}{4}$ pounds, nearly at the rate of 100 bushel per acre.

If the Professor has made no mistake in this, it would seem that the farmer can, if he will, induce such "reforms" into his business that his revenue may be greatly increased with actual less outlay. Does thin seeding contain the secret of heavy wheat fields? If it does, then the encouragement of the tillering process and of cultivation necessarily gives new vigor to the plant; consequently the maturity of the plant is retarded, and at the same time made better. When thickly sown it makes few if any tillers, and its tendency is to ripen earlier, with shorter straw, shorter heads and fewer kernels. The greatest enemy to wheat is wheat; it cannot bear to be crowded.—*Field, Farm and Fireside.*

TO FATTEN A LEAN HORSE.

To render a lean horse quietly plump and pleasing to the eyes of the amateur, he is usually fed on half an allowance of hay, a few oats, and a large mash of boiled barley daily. To contribute, the good mellow coat, he may besides receive about a pound of linseed cake, and should be kept in a rather warm stable. The dealer treats the poor horse preparing for sale much as the farmer does his feeding cattle. Exercise is restricted to the amount sufficient to maintain a fair appetite, and prevent thick legs and other evils so apt to follow from a disturbance in the balance between food and work. A horse thus kept for six or eight weeks will appear plump, but he has no condition for work, and if senselessly put to hard work will not only quickly lose the beef thus laid on, but will also probably fail from disease of lameness. With more sense and safety a lean horse in good health may be tolerably rapidly improved in appearance, and also in working condition, by liberal feeding and light work, and thus treated will be greatly more serviceable than if his beef and fat had been piled on him as if he had been a feeding ox.

YOUR LIVING A PROFIT.

It costs something to live; now much depends upon the manner and style, and how and where we procure it. Generally the farmer ought to be able to live better with less real outlay than any other class. He can raise the larger portion of what is consumed in the family, and in this manner the cost is greatly reduced. Yet we should not fall into the too common mistake of thinking that because it is raised on the farm it costs nothing, or that the farmer's living should not be counted in when considering the profits of the farm. To make a good living for a family is doing considerable, and if you have made that clear and without going into debt, you are better off than many business men who fail to make both ends meet. Yet we find many farmers who are not willing to consider this anything; they must make considerable over and above their family expenses in order to see that their farm-work has been profitable.

A large class of farmers have little or no idea of how much it costs them to live. Such a large portion of what they eat and wear comes either directly or indirectly from the farm that they are apt to deceive themselves into thinking that their living is a very small item, and should not be considered in making up the profit of the farm. If such a farmer would take a little trouble to keep a household expense account he would be surprised how rapidly these little items will add up. Credit the farm with all the produce in the shape of vegetables eaten or taken to the store and exchanged for other articles to be used for the same purpose; the butter and eggs used in the same manner; and the fruit and meat or poultry. Keep a close account of every article, whether consumed or exchanged for something else to be consumed or worn in the family. It will take but a short time to convince a farmer, if pains are taken to keep a correct account, that his living and that of his family amounts to considerable. And to me it always seemed right and proper that the farm should receive due credit. And many farmers, who at the end of the year are willing to declare that the farm was not profitable, would find that it paid fully as well as many other lines of business, with the same amount of capital invested.—*Germantown Telegraph*.

N. J. SHEPHERD.

Eldon, Missouri.

IF A curry-comb must be used, have the smoothest one that can be found, and use it but sparingly. In the hands of some men the curry-comb is a barbarous instrument of torture. Applied with a long, sweeping motion, without regard to the shape of the body, or the evenness with which it is held, it will make a poor animal shrink and shiver. The skin is often seriously hurt by the angles of the comb when carelessly and heavily handled. A short motion, back and forth, does the work more effectively and humanely than the severe application of the comb described. The horse will learn not to dislike it if he finds he is not hurt.

[For the Southern Planter.]

SKETCH OF THE PINES OF THE UNITED STATES EAST OF THE MISSISSIPPI RIVER.

BY NATURALIST.

The pines belong to the genus *Pinus*, of the natural order coniferea, which includes the cypresses, cedars, firs, hemlock, &c.—all cone-bearing, resinous, and mostly evergreen trees. Of the sixty or seventy species belonging to the genus *Pinus*, eleven or twelve abound in the United States east of the Mississippi river, and are variously distributed—no one species extending throughout this entire region. To avoid too frequent repetitions in the delineations of the species in our sketch, we will first give a generic description of the genus.

PINUS.—*Flowers Monoicous*, that is male and female flowers on the same tree. Male flowers in aments or catkins, clustered on the branches at the base of the sprig of the spring's growth. Female catkins, solitary or aggregated, immediately below the terminal bud, or lateral (on one side of), on the young shoot, consisting of imbricated carpellary scales, each in the axil of a persistent bract, leaving a pair of inverted ovules (young seeds) at the base. Fruit—a cone or "bur," formed of the imbricated and woody carpellary scales, which are thickened at the apex or out end (except in white pines), persistent, spreading when ripe and dry; the two nut-like seeds, partly sunk in excavations at the base of the scale, and in separating carrying away a part of its lining in the form of a thin and fragile wing. Leaves or "shatters" in fascicles of two to five, needle-shaped, evergreen, some thin, scarious bud scales sheathing the base of the cluster. When there are only two leaves in the cluster, they are semi-cylindrical—that is, round on the back and flat on the inner side; when more than two they are triangular, or roundish on the back, with a keel or ridge on the middle of the upper side; their edges in our species serrulate or finely notched; the notches discernible under a good lens. Trees blossoming in spring, the cones or burs ripening only in the autumn of the second year.

1. **LOBLOLLY, OR OLD-FIELD PINE.**—*Pinus Taeda.*—Leaves in threes, rigid, six to ten (mostly eight) inches long, with close sheaths, about one-half inch long; cones lateral, three to five inches long, oblong-ovoid or tapering; scales of the cone very thick at the end, and tipped with a stout incurved (sometimes straightish) spine. Sterile aments one to two inches long. A tree from fifty to one hundred feet high, with thick, rugged bark. It is confined to the wet or sandy lower districts along the coast, from the southern part of Newcastle county,

Delaware, to Eastern Texas. The most inland localities, according to Ezelmann's Revision of the Genus *Pinus*, probably being the stone mountain near Atlanta, Ga., and Camden, in Arkansas. This is probably the largest species of pine in the Southern States. It is the principal pine in Delaware, Maryland, and Virginia. The term "old-field pine" is by some restricted to that thinly seeded, and consequently low and very branching forms found in some old fields, which, though differing somewhat in appearance as well as in quality of timber from that growing in primitive woods, is nevertheless specifically the same. The term doubtless had its origin from the facility with which the species seeds in fields thrown out of cultivation. Timber moderately resinous, not as durable as the Southern Pitch or Broom Pine, *Pinus australis*, and perhaps some other species, but used in vast quantities for various kinds of architecture. This species is also used in immense quantities for wood, fencing, &c. The leaves of this pine, as well as those of some other species, afford a material for bedding for stock, superior, perhaps, to almost anything else. Being long and needle-shaped, and lying across each other, they form, as it were, a kind of lattice-work, and therefore do not clam together, as do the leaves of most trees.

2. NORTHERN PITCH PINE—*Pinus rigida*.—Leaves in threes, rigid, three to five inches long, from short, close sheaths; cones lateral, ovoid-conical or oovrate, one to three and a half inches long, more generally in clusters than in some other species; the scale tipped with a short and stout recurved prickle. Grows in sandy or spare rocky soil from Maine to Western New York and southward. Tree thirty to seventy feet high, with very rough and dark bark, and hard, resinous wood. Sterile or male catkins, slender, from one-half to one and a half inches long. The wood is used in architecture for flooring, and in ship-building, and is excellent as fuel for steam engines. There is a variety of this species (Var. *serotina*), with cones remaining long closed. Grows mostly near the edges of swamps or ponds, and bears the common name of Pond Pine.

3. SOUTHERN PITCH OR BROOM PINE—*Pinus Australis*.—Leaves in threes, rigid, ten to fifteen inches long, crowded at the ends of the branches with elongated, ragged, half-persistent sheaths; cones subterminal, somewhat cylindrical, six to ten inches long, the thick scales armed with a short recurved spine. Grows in dry, sandy soil, covering the ridges along the coast from North Carolina to Florida within 120 miles of the ocean. A lofty tree, with thin-scaled bark and very valuable resinous wood, used at the south in vast quantities. The leaves of

this pine being very long and deciduous near to the ends of the branches, the spray has a tassel or broom-like appearance, especially in the younger trees—hence the term “broom-pine.” The older trees are festooned with the long moss. Besides the tar, they yield nearly all the turpentine and resin of commerce. Sterile catkins very long (two to three inches), rose purple.

4. JERSEY, OR SCRUB PINE—*Pinus inops*.—Leaves in twos, short, one to three inches long, rigid; cones lateral, oblong-conical, sometimes curved (two to three inches long), the scales tipped with a straight or recurved awl-shaped prickle. Grows on barrens and sterile hills, New Jersey to South Carolina, westward to Kentucky. A straggling tree, fifteen to forty feet high, with spreading or drooping branchlets; young shoots with a purplish glaucous bloom. Sterile catkins, linear oblong, about one-half inch long. This pine is sometimes called Spruce Pine, Short Shatters, &c. The bark is thinner than that of some species, and in some of the trees is rough and blackish, except very near the top. In others it is more or less smooth and grayish from just below the limbs upwards; therefore probably bearing some resemblance to the Southern Spruce Pine, *Pinus glabra*. There is a variety of this species (var. *clausa*) which Dr. Chapman calls *Pinus clausa*. It is distinguished from the species by narrower leaves, and larger cones with shorter peduncles. Grows in Florida about Apalachicola, and on Cedar Keys.

5. GRAY OR NORTHERN SCRUB PINES—*Pinus Banksiana*.—Leaves in twos, rigid, short (one inch long), oblique or with unequal sides, divergent; cones lateral, mostly erect, conical oblong (one and a half to two inches long), smooth, the scales soon pointless. Grows on rocky banks in Northern Maine, Northern Michigan, Wisconsin, and northward. A straggling shrub or low tree (five to twenty feet high); the sterile catkins similar to those of the Jersey Scrub Pine. Both this and the last are probably what their names indicate—*scrub pines*.

6. RED PINE—*Pinus resinosa*.—Leaves in twos, slender, from long sheaths, elongated, five to six inches long, dark green, sheaths one-half to one inch long; cones terminal, orate-conical, smooth, about two inches long, falling soon after shedding the seeds, the scales slightly thickened, pointless sterile catkins, oblong-linear, from one-half to three-quarters of an inch long. Grows in dry woods from about Cape Ann, Mass., to Pennsylvania, Wisconsin, and northward. Tree fifty to eighty feet high, with reddish and rather smooth bark, and fine-grained, resinous, strong and durable wood.

7. SOUTHERN SPRUCE PINE—*Pinus glabra*.—Leaves in twos, slender, two and a half to three inches long; cones lateral, somewhat cylindrical,

about two inches long, scale nearly pointless; sterile catkins one-half inch long. Grows on the edges of swamps and on the knolls in them in South Carolina, near the coast. It probably extends throughout the lower part of the Southeastern States, as it is found in Mississippi. A tree sixty to eighty feet high, with smoothish bark and soft, white wood. Branches and branchlets smooth, whitish.

8. TABLE MOUNTAIN PINE—*Pinus pungens*.—Leaves in twos and rarely in threes, stout, short, rigid, one to two and a half inches long, crowded, bluish, the sheaths short (very short on old foliage); cones lateral, ovate three and a half inches long, the scales armed with a strong, hooked spine, a quarter of an inch long. Grows in the Alleghany mountains, especially in the Blue Ridge, North Carolina and Virginia, near Charlottesville, to Pennsylvania, as far north as Port Clinton, near Reading. Sterile catkins from one-half to three-fourths of an inch long. Tree with rough and scaly bark, and gnarled spreading branches, twenty to thirty feet high. The cones are said to remain on the tree sometimes for twenty years. According to Dr. Chapman, this species extends in the mountains south to Georgia.

9. SPRUCE PINE—*Pinus mitis*.—Leaves in twos and threes, from long sheaths, slender, three to five inches long; cones lateral, ovate or oblong-conical, barely two inches long; the scale tipped with a minute and weak prickle. Grows in dry or sandy soil from New Jersey to Wisconsin, southward to Florida, westward to Arkansas, and Missouri south of the Missouri river, where it is the only species of pine. A tree with rough bark, similar to that of the Loblolly pine, fifty to eighty feet high, straight, producing a fine grained, moderately resinous timber, valuable for flooring, &c. Sterile catkins linear, one-half to three-fourths of an inch long. The western form has more rigid leaves, and more tuberculate and spiny cones. This species is in some sections of the country called Yellow Pine, but the term is applied to so many different species throughout the country that we have deemed it best to apply it to none. Young shoots, often with a purplish, glaucous bloom.

10. SLUSH OR BLUE PINE—*Pinus Elliottii*.—Leaves in twos and threes, rigid, seven to twelve (mostly about nine) inches long, sheaths from one-half to three-fourths of an inch long; cones lateral, peduncles, recurved, oval to cylindric conical, three to six inches long; scales, with a short, stout, or rarely a slender, prickle. Sterile catkins, one and a half to two inches long. Grows in light, sandy, damp soil, among the sand-hills, near the sea-beach, and along the marshes near the mouths of rivers from South Carolina, on the sea-islands near

Charleston to Georgia along the coast, and sparingly as far as fifteen to twenty miles inland, but never far from the influence of salt water. Grows also in Florida, forming forests on the St. John's river. A large tree, 50 to 100 feet high, with reddish-brown bark. The timber is said to be excellent—heavy, very tough, and more resinous, even, than that of the southern pitch or broom pine.

11. WHITE PINE—*Pinus Strobus*.—Leaves in fives, very slender, glaucous, about four inches long, sheaths loose-scaled, entirely deciduous; cones terminal, long-stalked, narrow cylindrical, nodding, often curved, four to six inches long, falling soon after shedding the seed; their scale slightly if at all thickened at the end, and wholly destitute of prickle or point. Sterile catkins oval, nearly one-half inch long. Grows in cool and damp woods, Pennsylvania and northward, westward to the Mississippi river, extending in the Alleghany mountains south to Georgia. The White Pine is our tallest tree, often 120 to 160 feet high in a straight column in primitive forests, and is invaluable for its soft and light white or yellowish and durable wood, in large trunks, nearly free from resin. Bark smooth, except in the oldest trees.

The leaves of the pines persist or remain upon the trees from two to six, or in some western species from twelve to fourteen years. But, as by the extension of the branches, they put on an abundance of new leaves every spring, so they likewise shed from the lower part of the branches an equal quantity of the oldest ones every autumn. They therefore afford an abundant material for filling cow-pens, and for bedding for other stock. Those leaves, in a half-rotten state in the woods, are largely used in trucking, in order to keep the land light, or in a friable condition.

Hallwood Station, Accomac county, Va.

THE best cream globules rise soonest to the surface because they are the largest, and the flavoring oils rise with them because they are the most volatile; hence it is that the finest butter is that which is made from cream that is skimmed before all of it that will rise has risen to the surface, while that which rises afterward but tends to reduce the quality. Cream is a singular product; all of it will not rise—would not rise in a month, even if the milk could be kept sweet during that period—and some of the globules actually sink instead of rise, while others remain in suspension, going neither up nor down. Thus the specific gravity of the globules varies, not on account of size only, but also on account of composition; but, in any case, the cream which, under ordinary conditions, rises in the first twelve hours will make the finest butter.

WINTER MANURE.

BY COL. JOHN H. GUY.

Editor Southern Planter:

I think it advisable to haul out and spread manure as fast as it accumulates in Winter, and it is convenient to do so.

At this season hands and team are comparatively idle, and their employment now in hauling and spreading manure prevents a heavy accumulation to be dealt with in Spring, when so much other farm work is always pressing.

Unless, too, the manure is under shelter, the sooner it is spread on the land the less loss there doubtless is from leaching, caused by Winter rain and from escape of volatile matters; and even if the manure is so well sheltered as to be protected from material loss of any of its valuable properties, yet there is something gained by having it on growing grass or wheat, in the protection it thus affords to the young plants, stimulating their growth even in Winter and bringing them to Spring in a condition of such vigor as to make the most of that their real growing season. Now as to the question, Where should the manure hauled out in Winter be put?

First, I think it should not be put on ground that is yet to be fallowed for corn or other Spring crops, because, when the fallowing comes to be done, a considerable part of the manure will probably be buried too deep to be available, and be in the end lost by sinking, as it rots, into depths beyond the ready reach of most crops. I would, therefore, put it either on ground already fallowed for corn, or some other Spring crops, or upon growing wheat, or upon growing grass. Either of these is a safe and good application to make; but in determining between them the weather is necessarily to be consulted, for sometimes freshly plowed land would be too soft or muddy to bear the hauling, while wheat land, sowed in early fall, might be well enough settled to do so; and at other times the wheat land might be much too soft, while a grass sod might still be firm enough to bear the weight of team and wagon without injury. If, however, the season be favorable, so that one's choice may be had, I think the manure had best be applied to such of the wheat land as has also been sown in grass.

While the wheat and grass are growing together, there is a constant struggle between them to get from the soil as much food as each needs, and the joint demand they make upon the land is greater than anything short of unusual fertility can meet. Land so taxed would seem, therefore, to be a point of such need as to have the strongest claim for

the additional aid of manure; and this claim is much strengthened by the consideration, that the food-supply in the land may, especially in an unfavorable season, prove so inadequate, as that a failure in both crops may result. Wheat, however, being more vigorous in its growth, generally masters the grass and keeps it under serious check, and the latter is left at harvest stunted and dwarfed and poorly able to cope with the burning sun and probable drouths of our Summer. And how the cruder portions of the manure which will not have rotted and been carried into the soil, will afford to the young grass what is often, at this time, its most peculiar and pressing need, viz. shade and protection. And thus the grass, after its unequal contest with the wheat, may rally and regain vigor enough to maintain itself with another contest which almost surely awaits it, with another companion as vigorous growth as the wheat, in form of a crop of weeds, which July and August will bring, and which will continue their plunder on its food-supplies until October. If, however, the wheat land is not also in grass, and the question as to the application of the Winter manure comes up simply between wheat alone and grass land, then I would prefer to put the manure on the grass.

First, because the wheat is to come off of the land so soon, that a large part of the manure cannot be utilized by it, but must remain unrotted and not yet brought into the reach of roots. And, secondly, because the shade and protection which the manure will afford in Summer would, if it were applied to wheat alone, go chiefly to benefit only the succeeding crop of weeds, while, if applied to grass, the latter would secure these important benefits and also find constant additions to its food-supply from the gradual decay of all the organic matters of the manure.

TO THE PEOPLE OF VIRGINIA.

The Executive Committee of the State Agricultural Society, having duly considered the subject, deem it an auspicious time to call an *Industrial Convention*, which shall have for its object the development of the material interests of this State.

It is understood that such questions as divide the political parties of the day will not be discussed.

For more than a century our best men have devoted themselves to the consideration of questions affecting our civil and political rights, yet we cannot claim preëminence for our State polity. We have given to the nation some of its ablest statesmen, purest jurists, and most distinguished soldiers, yet in all that pertains to material greatness we have fallen far behind.

We have given a vast domain to the Federal government, and our sons and daughters have populated the continent, yet our fields are untilled, our mines unopened, and our resources undeveloped. The census of 1880 shows that 688,336 persons born upon Virginia soil were then living in other States and Territories of the Union. Of these, 488,688 have emigrated to Southern States, which have sent us, in return, 43,550 of their own citizens—not one for ten. In exchange for 234,648 who have emigrated to Northern States, we have received only 19,195—less than one for twelve. For the unknown number who have gone to all other portions of the habitable globe, 14,696 natives of foreign countries have come to fill up our depleted ranks. We boast of our hospitable firesides, our genial climate, our fertile soil, and our inexhaustible resources, yet one-third of all persons born upon our soil seek their homes and their fortunes in other parts of the world.

The following table shows the migration between Virginia and other States:

MIGRATION BETWEEN VIRGINIA AND SOUTHERN STATES.			MIGRATION BETWEEN VIRGINIA AND NORTHERN STATES AND TERRITORIES.		
States.	Born in Va., living elsewhere	Living in Va., born elsewhere.	States.	Born in Va.; living elsewhere	Living in Va., born elsewhere.
Alabama.....	24,279	477	California.....	5,906	53
Arkansas.....	13,292	110	Colorado.....	2,441	12
Delaware.....	642	480	Connecticut.....	1,722	418
Florida.....	3,329	130	Illinois.....	27,904	332
Georgia.....	14,606	895	Indiana.....	24,538	330
Kentucky.....	36,515	2,087	Iowa.....	15,531	139
Louisiana.....	21,321	392	Kansas.....	15,336	79
Maryland.....	26,754	7,942	Maine.....	276	346
Mississippi.....	28,816	420	Massachusetts.....	4,766	878
Missouri.....	54,058	474	Michigan.....	3,069	255
North Carolina.....	19,486	22,505	Minnesota.....	1,901	38
South Carolina.....	4,058	898	Nebraska.....	4,425	10
Tennessee.....	38,059	4,967	Nevada.....	486	6
Texas.....	27,874	332	New Hampshire.....	213	234
West Virginia.....	135,599	1,641	New Jersey.....	4,789	1,349
Total.....	448,688	43,550	New York.....	12,586	5,382
			Ohio.....	51,647	1,275
			Oregon.....	1,835	23
			Pennsylvania.....	20,189	5,541
			Rhode Island.....	1,076	118
			Vermont.....	137	213
			Wisconsin.....	1,519	179
			Territories.....	32,356	1,995
			Total.....	234,648	10,195

Is it not evident from this showing that something is wrong in the conduct of our affairs? Can we afford to sit still and allow the tide to drift longer in this direction? Has not the time arrived when we should look carefully into the causes and consequences of this condition of things?

We hear it said that a new era has dawned upon Virginia and the South, that the tide of prosperity is about to turn upon us. But experience teaches that Providence only helps those who help themselves. The great Irish patriot, D. O'Connell, said: "Who would be free, themselves must strike the blow." We must throw off the shackles of the past—we must man our boats and trim our sails, if we would reap the fruits of this prosperous tide.

But let us look again at the census returns, and see what we are doing for the development of our resources—how the results obtained compare with other and more progressive communities.

From the foundation of the colony, agriculture has been the one great interest which has given employment to our people. Fifty-one per cent. of all our producers, and seventy per cent. of all capital, real and personal, in 1880, were employed in agriculture. Now let us examine the results, as exhibited by the following table:

	Capital invested in Commerce and Manufactures—Real and Personal.	Capital invested in Agriculture—Farm Lands.	Aggregate Value of Farm Products.	Value of Farm Lands per Acre.	Per cent. of Workers engaged in Agriculture.	Value of Products per capita.	Average rate of Wages, including Rations.	Net Profits.
Virginia.....	\$ 94,343,600	\$216,028,107	\$ 43,726,221	\$10 89	51	\$180	\$150	\$ 28
Maryland.....	220,916,900	165,503,341	28,839,281	32 33	28	317	196	121
Pennsylvania...	867,584,013	975,689,410	129,770,476	49 30	21	431	270	161
N. Carolina.....	51,519,300	135,793,602	51,729,611	6 70	75	148	151	loss 8
New Jersey.....	143,490,200	190,895,833	29,650,750	65 16	15	501	268	228

Here are five States resting on the Atlantic seaboard, settled about the same time, subject to the same climatic influences, having substantially the same geological formation, except that Virginia, owing to its rivers, bays and harbors, enjoys superior commercial advantages, yet how striking the contrast! Do not these figures show at a glance why Virginians emigrate? and is it not equally clear when we come to examine them carefully, what is necessary to check this tide? With agriculture as almost our sole reliance, the difference in wages paid, the gross value of products per capita, and net profits accruing, must necessarily drive our people to more inviting fields.

Again, from the examination of the table above we discover that the larger the proportion of those engaged in agriculture in any State the less the value of farm lands per acre, the less the amount of wages paid and the value of products per capita. The converse of the proposition is equally true, that as you diminish the proportion of farm

workers and farm investments to those engaged in other industries, you enhance the value of farm lands, raise the price of labor, and increase the value of products per capita. Hence Mr. J. R. Dodge, the Statistician for the Department of Agriculture, has formulated as a natural law, viz.:

“Values in agriculture are enhanced by an increase of non-agricultural population.” In illustration of this fact he divided the States and Territories into four classes:

1. Less than 30 per cent. engaged in agriculture.
2. “ 50 “ “ “
3. “ 70 “ “ “
4. “ 77 “ “ “

The last being almost entirely agricultural.

	No. employed in agriculture.		Av. val. farm land per acre.	Av. val. pro- ducts per worker.	Av. val. wages year.
15 States average	18 per cent.		\$38.65	\$457	\$300
13 “	42 “		30.55	394	275
13 “	58 “		18.58	261	234
6 “	77 “		5.18	160	158

In the first class, eighteen farmers, besides feeding and clothing their own families, have eighty-two engaged in other pursuits to make provision for. In the fourth class, seventy-seven farmers have twenty-three others to consume their surplus products. In the first case, the competition is between buyers and consumers; in the last case, the competition is between the sellers and producers.

For two hundred and fifty years Virginia has been devoted to the production of raw material, and her surplus products have found their markets across the great seas, with the results which are before us. Now, is not the remedy apparent, and is it not within easy reach? We must

DIVERSIFY OUR INDUSTRIES.

If we would keep our sons and daughters at home, recuperate our fortunes and restore fertility to our exhausted fields, we must open the mines which have lain dormant for generations. We must utilize our water power, establish manufactures, build up our cities and make home markets for our products. With such a diversity of employment, the principle of the division of labor can have full sway, and provision can be made for every variety of taste, talent and physical development. Each individual can be put in that position for which he is qualified by education and natural endowments. Then we shall have no non-producing consumers, and no one will be forced to emigrate that he may find congenial and profitable employment.

Industries, like individuals, thrive in communities. There is an interdependence of one upon the other. Each one is a consumer of the products of every other, and hence the greater the number of industries in any community, the more independent and prosperous its citizens. This fact is abundantly demonstrated by the figures above.

We would call then upon the patriot sons of Virginia, in every part of the State, to co-operate with us in this movement, which has for its object the fullest development of all our industrial resources. Meet us in Richmond on the 15th of April, and let us organize our forces. Let us perfect plans for this work that will call to our assistance the press of the State, and in a manner that will not be misunderstood by our chosen representatives, who shall give to this movement the sanction of law. We are the sovereign people. We create the wealth and bear the burdens of government. We have the right to be heard in the counsels of the nation. We are not beggars, we do not ask bounties, nor do we seek any special rights and privileges—but we do ask that consideration which our own and the interest of others alike demand.

Daniel Webster, the sage of Marshfield, said *an enlightened agriculture* is the basis of all National wealth; the foster-mother of all the industries; the hand-maiden of all the arts and sciences. But that able jurist and pure statesman, Hon. J. G. Black, in recounting the unequal benefits and burdens imposed by our government, said that Issachar's blessing had fallen to the lot of the American farmer.

We have a "Weather Bureau," with a Signal Service, and telegraph lines running all over the country. Why should the merchant in town be told to take his umbrella when he leaves home in the morning, while the farmer, with the labor of the year at stake, is left in blissful ignorance of the impending storm? How is it that all the enlightened and progressive States of this Union, as well as abroad, have well organized and liberally endowed Departments of Agriculture, with experimental stations, conducted by scientific men qualified to answer any question and to furnish any information desired by farmers, while we are left to grope our way in Egyptian darkness? Russia, standing on the outskirts of civilization, expended in 1882 \$15,000,000 for the advancement of agriculture; France, sinking under a load of debt, appropriates \$20,000,000 to lighten the toil of those who till her soil. The United States, with an overflowing treasury, has expended only \$246,807; while the State of Virginia, for the support of a Department of Agriculture, Mining and Manufactures, appropriates \$5,000! Is not this "penny wise and pound foolish?" When we contrast this with the millions which are expended in other departments, which at best are merely ornamental, we are reminded of the bill which Prince Hal took from the pocket of Sir John Falstaff:

EXPENDITURES UNITED STATES GOVERNMENT FOR FISCAL
YEAR ENDING JUNE 30TH, 1882.

For Civil Expenses.....	\$ 18,012,386
“ Foreign Intercourse.....	1,307,587
“ Indians.....	9,736,747
“ Pensions.....	61,345,193
“ Military Establishment.....	43,570,494
“ Naval Establishment.....	15,032,046
“ Miscellaneous Expenditures.....	34,539,237
“ District of Columbia.....	3,330,543
“ Interest on Public Debt.....	71,077,206

Total ordinary expenditures.....\$257,981,439

Expenditures by Department of Agriculture, included in Miscellaneous Expenditures.....	\$ 246,807
Expense collecting Customs Revenue.....	6,549,595
“ “ Internal Revenue.....	4,097,241
Total expense collecting Revenue.....	\$10,646,836

Are we abreast of the times or have we fallen behind? Let the figures which have been adduced speak. Have we not traveled the downward road long enough? Confined to their narrow sphere, the blessing of Issachar will fall to the lot of the farmers; but educated and organized, they will take the position assigned to them by Mr. Webster. Individuals in our State have heretofore done much for the advancement of agriculture; but conditions are changed, and it requires the active coöperation of the State itself to reach out and grasp the means of bringing prosperity to all the interests in the State, of which the very keystone is agriculture. We constitute the great majority of the sovereign people. The powers of the State are in our control. It is in the hands of those to whom we delegate authority to advance or retard the progress of the State; but we must remember that no government can be better or wiser or more progressive than the people who make it. Therefore let each man set his own house in order. Let each one do his duty in his own sphere and station. Let him add to the wealth and property of the State by making his own work a success. Let us display that self-denial, that indomitable energy, and that determination which characterized our leaders in the past, who still speak to us in monuments upon our Capitol Square.

Let us demand of our legislators that they keep pace with the progressive measures of other States, that they foster our agricultural schools, and enable them so to conduct their model farms as to contribute valuable information to our agricultural people. Let them support an Agricultural Department on a scale and with powers commensurate with its vast importance—if properly handled—to the general interests of our State. Let us then attach to it an Exposition Building, for the constant display of our varied productions, for which the material we have sent to the World's Fair at New Orleans can form the nucleus.

Let them place under its control a Bureau of Immigration, with means and power to place before the world the advantages that Virginia offers to the settler from every clime, and to inaugurate and carry out a systematic plan for inducing immigration and a general development of our varied resources. This all being done will inspire investors with confidence in our future, and they will gladly turn their attention to our resources, and then none can outstrip us in our forward progress; for nothing is more true than that “to him that hath shall be given,” and that progress begets progress.

By order of the Executive Committee of the Virginia State Agricultural Society.

RICH'D V. GAINES, WMS. C. WICKHAM, A. S. BUFORD,
Committee.

[Special rates for delegates to the Farmers' Convention, to be held in Richmond, April 15, 1886: The Chesapeake and Ohio, Richmond and Danville (including the York River

and Midland railroads), the Richmond, Fredericksburg and Potomac, and the Richmond and Alleghany railroads, will sell tickets on the 13th, 14th, and 15th of April, good for ten days, at five cents per mile one way for the round trip; the Petersburg railroad at three cents per mile each way; the Richmond and Petersburg, Norfolk and Western, and Shenandoah Valley railroad will sell tickets at excursion rates. All roads from Lynchburg to Richmond will sell tickets at \$6.50, and from Norfolk to Richmond at \$3.50 for the round trip. The Weems line of steamers, on the Rappahannock river, and the James River Steamboat Company, one fare for the round trip. In all cases it will be necessary for the delegates to present certificates of their appointment, to secure the special rates, and to have the certificates stamped by the Secretary of the State Agricultural Society, as an evidence of their attendance at the Convention.—ED. S. P.]

GEX CHEESE.—The following is a description of the manufacture of a much-admired French cheese known as Gex, which could easily be made in this country, and possibly would command a ready market here. The milk when taken to the dairy is first passed through a fine sieve, through which it filters and runs into a circular receptacle. When the rennet is added, and coagulation is effected in about an hour; but in summer this cooling is frequently hastened by placing in the milk vessels filled with cold water. The mass is then well agitated, the large lumps broken up, and the whole allowed to remain until the curd deposits itself at the bottom, when the whey is drawn off and the curd thoroughly drained. These lumps are next broken into small pieces by a cheese-spoon, and put into the mould, being weighted with a weight of some ten pounds to more completely separate the whey. As a rule, the curd from one milking will make a sufficiently large cheese, but when it is insufficient to do this, the curd of two milkings must be used, and the work proceeded with as follows: That from the first milking, when put into the mould, must be broken on its surface by the hand. The curd of the second milking is then worked, and placed on top of the other, with a suitable pressure above. The cheeses now remain in an apartment for twenty-four hours, being turned once during that time, after which the salting process is begun. For this purpose they are stood side by side in a wooden tub, and on top of them is sprinkled a quantity of salt. They are left for another twenty-four hours, after which time the tub is thoroughly cleansed with pure water. The cheeses are then replaced, the salted surfaces being downward, and the opposite surfaces treated in the same way that they have been; this operation being repeated daily, and the quantity of salt used gradually reduced, until the cheeses are fit to be taken from the tub, which will be when they partake of a somewhat firm and constant crust. They next are stood upon shelves in the ripening apartment, this having a northern aspect and being of such a construction that the cheese may be placed in contact with the air as it circulates through the building. Here they must be turned daily, and if they are carefully attended to they will undergo a special fermentation and take in the interior those marble veins peculiar to them and so well known to connoisseurs. Cheeses manufactured in the hotter seasons of the year can be taken out for sale in about three months.—*Farm, Field and Stockman.*

VIRGINIA AGRICULTURE.

[For the Southern Planter.]

Mr. Editor,—While looking over your *February number* of the *Planter* my attention was arrested by an article taken from the *Journal of Agriculture* under the caption of "Outlook for Producers." The article is timely, and while I most heartily concur with the writer, I desire particularly to call the attention of my brother farmers of Virginia to the outlook before us as a body. While the unsettled values of wheat, corn etc. are creating financial troubles among Western producers, it is working out for the farmers of Virginia the problem of their future existence as such. It is far from my purpose in this article to discourage honest industry, but to view calmly and dispassionately our situations, surroundings, &c., as a producing class. Our staples or moneyed crops generally speaking, have been for the past century or more mainly of corn, wheat, oats and tobacco. To these we have looked principally for the necessary funds not only to defray the expenses of production, but to pay our taxes, to keep in repair our fences and buildings and to support our families not luxuriously but comfortably. Those who keep actual accounts of their yearly outlay and income on their farms can best tell us whether or not at the close of a year's proceedings their accounts balance. It is a fact not to be denied that the farmers of Virginia, generally speaking, carry on their farms more or less stock enough at least to consume their rough food, from which they get in return, besides manure, possibly a sufficiency to defray the expense of feeding, in the way of milk, butter, veals, &c., But after all, do your accounts balance at the close of the year's operations? Let us for a moment examine more closely this vital question which contains so much to our interests. It has been a question with the Virginia farmers, since the close of the late war, whether or not they should continue their former modes of cultivation, and the production of their former crops. As a class they have differed widely on this point in sentiment. Many of them, notwithstanding, have tenaciously followed the old ruts, while in exceptional cases some alterations have been made. Summing up the operations for the last twenty years, in the agricultural districts of the State, it will be seen that instead of thrift our farmers have been embarrassed.

In almost every neighborhood we find the farms are on a downward tendency, and the farms, with but few exceptions, are becoming poorer each year whenever the owners rely entirely on the products of their farms for improvements. In addition we find the fences and buildings becoming dilapidated, fields growing up, washing in gullies and be-

coming more and more worthless to their owners as the years go by.

In the greater part of Middle Virginia, a large proportion of those owning farms prior to the war, have curtailed their operations to a very limited extent, or abandoned agriculture altogether, either selling or renting until a purchaser is found. Every farmer of ordinary intelligence knows what renting or leasing a farm to tenants means in its usual sense. This needs but little comment. Such a course, to say the least, costs the owners of such lands in the end much more than they receive as rent.

What is the cause of these changes? Why is it that farming in Virginia has fallen so far below par these latter years? Is it because our farmers have lost their vim, becoming negligent, fast livers, etc.? This cannot be. It is far to the contrary. As a people they have been put more thoroughly to the test, and have worked harder, both mentally and physically to obtain an honorable support since the war than ever before in their history. Then to what cause, or causes, shall we trace this depression?

In my humble opinion, Mr. Editor, there are many causes, real and not assumed, some of which I shall undertake to enumerate as they present themselves to my mind.

In the outset, I would say our farms, generally speaking, are too poor, too large and too unwieldy in every sense to be worked profitably. We endeavor to cultivate too much surface for our means. A farm consisting of 200 acres requires less labor, less team and less capital to make it profitable to its owner than one of 500 or a 1,000 acres.

If our farmers insist on placing and keeping their farms in direct competition with the wheat and corn-producing sections of the West, they must double the fertility of their farms and produce more corn and wheat per acre. But, says one, we lack the capital requisite for improvements. This is true in one sense, but let us look a little further into the matter. We need capital to adjust our farms to the demands of the times. Suppose each farmer throws one-half of his farm on the market, be it large or small, and devotes the proceeds to a systematic course of improvement on the remainder, thereby lessening his area and doubling the value or fertility per acre. This means, less team, less labor and capital for the production of a given quantity of grain. It means more grass, and the more grass the more rapidly and permanently will our lands be improved. It will be observed in the meantime our population will have been doubled. In all thickly settled countries, it will be remembered, villages and small towns become numerous. They are indispensable to the well-being of the people, fur-

nishing, as they do, immediate supplies and ready markets for home products.

Such a change in the affairs of the State, will enable our farmers to diversify their crops and will throw around each a safeguard and an ample protection in the pursuit of any of the various branches of agriculture to which their taste may be best suited.

Let us take courage and set our minds and hands to the accomplishment of the task which is before us. M.

HARD TIMES AND BOOK FARMING.

It has always been the fashion among a large class of our Canadian farmers to decry "book farming" as being altogether the opposite of practical farming. The farmer who year after year blunders along in a hap-hazard sort of way, making up in a great measure by plodding industry what he lacks in intelligence, is pointed to as the practical farmer, while the man who goes about his work like a rational being and insists on thoroughly understanding it is called the "book farmer." Now it often happens that for the first few years of the careers of two farmers of these widely differing types the so called "book farmer" appears to have considerably the worst of it. They are on new farms perhaps, and as the soil is of apparently inexhaustible fertility the one's care in saving manure is to all appearances thrown away, though of course it tells in his favor in the long run. In the meantime the "practical" man is skinning his farm and putting the proceeds into his pocket in the shape of dollars. And in the matter of stock "book farmer" is spending his money in laying the foundation of a well-bred herd of cattle and valuable flock of sheep, while the "practical farmer" is contenting himself with "scrubs" that cost him a mere trifle. To all appearances the latter has much the best of it, but any one who visits them ten years after their start in life will see that while the book farmer has been laying deep and sure foundations of a prosperous career, the so-called "practical" farmer has been absorbing his resources in making a mere show of prosperity.

The present season of unexampled agricultural depression in England has shown the value of "brains" to the farmer. Times are so hard there that it is only what we are pleased to call "book farmers" who can succeed at all. Every pound of manure has to be saved, and every foot of land made the most of, so that it is easy to see how quickly the so-called "practical farmer" would be left out in the cold in the practice of a pursuit based on such accurate calculations as to cause and effect.—*Canadian Breeder*.

THE *Farmers' Gazette* (Ireland) claims that the operation of dishorning cattle made the animals much more valuable, and that it made the dishorned animals more tractable, gentle and less dangerous to man and each other.

THE NEGRO.—Parody on Poe's Raven.

FOUND AMONGST THE MANUSCRIPT PAPERS OF AN OLD SOUTH CAROLINA PLANTER.

Once upon an evening dreary, from my fields I'd come in weary,
 And sat pondering life's dark problem as I'd often done before.
 While I sat engag'd in thinking—the present, past and future linking,
 Thro' the twilight I saw blinking a dusky figure at my door—
 A figure huge and dark and dusky, black as Desdemona's Moor,
 Peering in my chamber door.

Tho' the twilight dim, uncertain, hanging like Plutonian curtain,
 Threw no trace nor shadow of his form upon my floor,
 I could see the looming figure, like a giant's, only bigger,
 Of a dark and dusky nigger, whom I'd often seen before—
 Seen in times, when hat in hand, Sir, the nigger stood without the door—
 Times now gone forevermore.

Now with greedy eyes he's standing stark within my doorstep landing
 All forgetful of his manners—his cover'd head within my door,
 One eye I saw was at me leering, the other on my viands peering,
 While my anger nothing fearing, his greed intent upon my store—
 Intent to beg or steal his rations from my very scanty store—
 This his purpose, I was sure.

Then upon my hearth-place spying, where my ham and eggs were frying,
 I beheld a poker lying, by my hearth upon the floor,
 And with most determined vigor, prone I hurl'd it at that nigger;
 But he bent his supple figure and it fell upon the floor—
 Miss'd the head at which I aim'd it and fell harmless on the floor—
 Bark'd his shin and nothing more.

But with hungry eyes still looking where my ham and eggs were cooking,
 He with step determined walking, stalk'd across my chamber floor,
 Never made the slightest bow, Sir; then I saw there'd be a row, Sir,
 For I made a solemn vow, Sir, I'd kick that nigger from my door
 All despite the Freedman's Bureau, kick him from my chamber door,
 Independence in him I'd cure.

Having done so I relented and of my hasty act repented,
 For I could not think of turning a hungry creature from my door.
 So, said I, tho' you're a freedman you seem run so much to seed, man,
 I'll give you now a hearty feed, man, as you look so very poor;
 Only split a turn of lightwood lying there without the door,
 Quoth the nigger, nevermore!

Much I marvel'd this ungainly nigger should refuse so plainly
 On such terms to sate his hunger—hunger that must press him sore,
 For he cannot help agreeing, that no living human being
 Should refuse to labor seeing hunger pressing on him sore—
 Should refuse to earn the dinner he sees cooking from my door,
 Tho' he eats one nevermore.

Some-time I sat engaged in musing, what he meant by thus refusing;
 "Doubtless," said I, "that huge creature once consumed enough for four
 When upon a rice plantation he out-ate the whole creation
 And never made a calculation what his rations cost, I'm sure.
 Free-rations then old master furnished in the good old days of yore—
 Days now gone forevermore."

Now unless that nigger's crazy, however much he may be lazy,
 I'll shame to a sense of reason before he quits my chamber door!
 "Sir," said I, "have you no feeling? Do you mean to live by stealing
 Or by work and honest dealing? Tell me, tell me I implore,
 Will you ever work for wages as mankind have done before—
 Quoth the nigger, nevermore.

"Be that our ever sign of parting," I in anger cried upstarting,
 Get you back into the marshes! Let me see your face no more—
 Get ye gone, you ugly demon—nigger still if slave or freedman!
 Join the army! Go to Texas—never come back here to beg us—
 Ne'er return again to vex us! Let me see your face no more!"
 But he stood there as before.

And that darky still is standing in my entry on the landing—
 Standing listless on the landing with his back against the door;
 And his eyes are ever spying where my ham and eggs are frying,
 But my poker still is lying near at hand upon the floor,
 And so long as I can lift it from its place upon the floor
 I'll feed that nigger, nevermore!

COL. O'FERRALL'S PLAN TO BENEFIT FARMING COMMUNITY.

Representative O'Ferrall is engaged upon a scheme that will be of great benefit to the people of the western part of Virginia, and will be duly appreciated by them. It is a plan to extend to them the advantages of the observations and predictions of the United States Signal Service. The great value of the weather bureau, especially to those engaged in agricultural pursuits, has been abundantly established. Col. O'Ferrall is assured of the hearty co-operation of the officers in charge of the Bureau and is confident that he will succeed. His plan is to have the various signals, indicating clear weather, rain, frost, &c., displayed at all stations, on the Virginia Midland, Shenandoah Valley and Valley railroads. Thence they will be communicated to other points, covering in the aggregate a very large part of the territory. The Signal Service has reached a state of such perfection that during the past two years about 85 per cent. of its predictions have been verified. Millions of dollars have been saved to the farmers by its warnings, in the harvesting and handling of their crops. Col. O'Ferrall tells me that a year or two ago, two of his friends lost in a single night, by frost, \$15,000 worth of tobacco. A day's notice of the expected frost, such as are now given by the Bureau, would have enabled them to save the whole. He is very much in earnest about the matter, believing that he can thus do a great service to the people in that part of the State.—*Special Washington Correspondence of Staunton Vindicator.*

THE breeding of horses in Iowa is proving a profitable business. From Mahaska county alone there were sold during the season of 1883 \$225,000 worth of horse stock.

NITRATES ARE NEEDED.

Early in spring, the conversion of the nitrogenous matter of the soil, or of manure, into nitric acid, is exceedingly slow. It needs heat and moisture, bacteria and lime. In moist land, during hot weather in summer and autumn, the conversion takes place most rapidly. This is an advantage to the grower of winter wheat or winter rye. The growing wheat or rye plants in the fall take up the nitrates. I cannot go into the subject now. What I wanted to say is this; ordinary farming can avail itself largely of the natural fertility of the soil. We can grow crops of corn, and wheat, and grass, for many years without manure. But not so the market gardener. No soil in the world is naturally rich enough to grow garden crops to advantage and profit. Why? Not because garden peas require any more or different plant-food than field peas, or garden beets any more than mangel wurzels. It is because the gardener desires early crops. He desires to get the growth at a season of the year when little or no nitrates are formed in the soil. To attain his object, he puts into the soil a monstrous quantity of manure. To grow a crop of early cabbages, or early cauliflowers, it is almost impossible to make the land rich enough. At any rate, we find that the richer the land is made, the earlier and better the cabbages, and the more profit. We have to furnish three or four times as much manure as the crop needs. Why? Because the soil is cold and no nitrates are formed. We try to furnish the plants with all needed nitrates by an excessive application of manure—better apply the nitrates direct. This is not theory. I have been trying for years to grow good celery plants in the open ground. I could succeed only where the ground had been excessively manured for some years past. I have plowed in, the previous autumn, seventy-five to one hundred tons of the richest, well-rotted manure, and had "fair to good" celery plants. Now, by the use of nitrate of soda I can get celery plants earlier, larger and every way better, at less than one quarter of the cost. There is mystery about this. I presume we apply more nitrates than three hundred tons of manure per acre would furnish early in the season. Later, of course, when the manure commences to decompose an abundance of nitrates would be formed, but then early garden crops want the nitrates while the soil is so cold that nitrification cannot take place.—JOSEPH HARRIS, in *American Agriculturist*.

IT IS NOT TRUE.

"Why Farming is so Little Liked" is the heading of an article which has been "going the rounds;" but after reading we look in vain for any substantial reasons, because there are none to be offered, why farming is *not* liked. For ourselves we deny the proposition. The fact that three fifths of the population of the country are engaged in farming puts a stopper on any such nonsense. It proves that no business is *more* liked than the cultivation of the earth, and none yields so sure a living, and provides with more certainty for the wants of old age when our work-days are over. There are lazy people engaged in

farming, as in any other calling, who are always ready to try their hand at something else which to them seems to promise as much or more gain with less labor. But we all know, who have paid any attention to these changes, how seldom any one betters his condition. On the contrary, how frequently—in fact, how generally—they fail entirely and disastrously. It is perfect folly, after working at a pursuit a number of years, and becoming well acquainted with it in all its parts, and doing well enough, to abandon it and begin anew some other business of which we know nothing. And we see the result of this folly all around us. The industrious, temperate, careful man, who pursues farming as the vocation of his life, becomes ardently attached to it and never fails to do well by it. We say never, because such a man cannot help but succeed, unless overwhelmed with misfortune; but even in such case it is not often permitted to be ruinous in these days of good will and benevolence.

In a word, there is no business of life that a man engages in for the support of his family that is sure of accomplishing its object—or that upon the whole *better liked*—than that of tilling the soil; and there is no people, take them as a whole, who are more respected or held in higher repute by the rest of mankind.—*Germantown (Pa) Telegraph*.

FARMERS' NEEDS AND FARMERS' ORGANIZATIONS.

AN OPEN LETTER TO COLONEL ROBERT BEVERLEY.

Dear Colonel,—Some time last winter I promised to submit certain views, which had been suggested to me by your Address to the "Agricultural Congress" last fall. I had hoped to prepare this paper prior to the meeting of that "Congress" in New Orleans in February, but sickness in my family and professional engagements prevented.

As there is to be a "Farmers' Assembly" or "Convention" held in Richmond on the 15th of April, I will submit, through the *Planter*, a brief outline of what has occurred to me, in the hope that the suggestions now made may constitute a "starting point" for future organization and action.

Let me premise by saying that a very large proportion of the taxes, both State and Federal, are paid, either directly or indirectly, by the farmers, and yet neither the State or the Federal Government contributes any but the merest pittance—in proportion to the magnitude of the interests involved—to the advancement of agriculture.

The most efficient means of correcting this great evil and injustice is what all farmers should desire, and I therefore submit the following suggestions for consideration:

First. Let the farmers throughout the State, in "General Assembly"

convened, ascertain and agree upon what are their wants, to be demanded from the State Government.

Second. Let the farmers throughout the United States, in "General Congress" assembled, determine what the farmers of the Union demand from the General Government.

Third. Let the farmers in each State form such an organization as will best promote the ends sought to be accomplished.

The State to be acted upon directly by the "State Farmers' Assembly," the United States to be acted upon by a "Federal Congress," composed of representatives sent by each "State Assembly."

Under the *first* head I submit three propositions:

First. Our State Department of Agriculture should be reorganized, and at least \$10,000 per annum should be demanded for its support. This sum is small, but with the judicious management of the present able Chief of that Department much good could be accomplished, and as the Department is enlarged, this amount might be increased. The proper reorganization of the Department of Agriculture is a matter of detail, and I will not now even attempt any suggestions under that head. I trust, however, that the Assembly which meets on the 15th of April will appoint a committee of earnest workers, who will prepare a plan for its reorganization, and submit it either to that Assembly, or, if there be not time enough, submit it to the next Assembly, which should be held in September, or early in October. The present head of the Department, Colonel R. Harrison, should be a member of that committee.

Second. There should be established in this State at least three Experiment Stations, for the purpose of making experiments pertaining to agriculture.

It is true that a good deal of money is necessarily expended at such Stations without any apparent benefit. But failures in experiments judiciously made are but the "signboards to success;" for to ascertain what roads are *not to be taken* is next in importance to ascertaining the right road. Private citizens should not be expected to try experiments except to a limited extent. The State should make the experiments, and make known the results.

To attempt to establish one independent station would not be too much; but by making use of institutions already established, then such Stations could be maintained at much less cost than one independent one, and would do much more efficient work.

The College at Blacksburg is a State institution, and is an "Agricultural College." It is situated in the heart of the finest grazing region

of Virginia. Let one Station be located at Blacksburg, the experiments at that Station be confined to the breeding and raising of horses; the breeding, raising and fattening of cattle, sheep and hogs; the best methods of feeding, the best foods, the nutritive value of different foods—to be ascertained, not by chemical analysis, but by actual experiment.

Let another Station be established at the University of Virginia, also a State institution, and which now has an Agricultural Department with an annual income of \$6,000. The University is situated in the centre of the Piedmont country, that portion of the State well adapted to the production of all the cereals, tobacco, the grasses, and especially fruits, including the wine grape. Let the experiments at this Station be confined to the propagation, cultivation and distribution of the best varieties of cereals, grasses and fruits, the best means of culture, the best fertilizers to be used, the best means of applying them, and the comparative cost of each.

The Hampton Normal School is not a State institution, but it is aided by the State, and I know from personal observation that General Armstrong is in an eminent degree "the right man in the right place." Hampton is situated in the region of the peanut and cotton, and in the very midst of that grand but scarcely developed interest—the "salt water food-fishes." Let "Hampton" take charge of experiments in the culture of the peanut and cotton, and in the preservation, propagation and distribution of fish and oysters in and along our numerous salt water bays, rivers and creeks. Let the result of all the experiments at each of these stations be published by the "Department" annually. Let a sum of not less than \$5,000 per annum be demanded for each of these Stations, to be expended exclusively for the purposes indicated above, and to be strictly accounted for in their annual reports. This sum might be considerably increased by sales, at a moderate price, of the surplus productions of these Stations.

Third. Let the Farmers' Assembly demand from our State legislators some protection from the unjust discrimination made by our transportation companies against our own citizens—a discrimination amounting to almost direct robbery.

In regard to the second general head, viz.; "What the Farmers of the United States Should Demand of the Federal Government," the subject is too large for this letter, suffice it to say that the Farmers' Assembly should send delegates to the next Farmers' Congress, and it would be well to appoint a committee, with Robert Beverley at its head, to prepare a statement of the *wants* of the farmers of the Union, which

should be demanded from the Federal Government, such statement to be submitted to the Farmers' Congress. Let this committee also have in charge the duty of urging the farmers of other States to unite in an effort to have justice done.

Fourth and lastly—but more important than all—Let the farmers organize. At present they are raw militia, wholly without organization, without officers, without arms or ammunition. They are fighting, or about to fight, regular troops, well organized, drilled, officered, armed and equipped. These are the great transportation companies and other corporations, the great monopolies, the great monied institutions, and the stock, grain, cotton and other rings, with their hoard of the most reckless gamblers the world ever saw.

Let the farmers in each county form a permanent, not temporary, organization; let them send delegates to the Farmers' Assembly—not too many. When this Assembly meets, appoint a committee to ascertain and report the wants of the farmers, so far as the State government is concerned. If that committee can't prepare this report at the April meeting, give them until the next meeting. When they do report, let the Assembly discuss, amend and *agree upon* what the farmers want. Let these wants be moderate. When these wants have been ascertained and agreed upon by the Assembly, have them put in the form of demands and published. Whenever there is to be an election for members of the General Assembly of Virginia, let it be the duty of the county chairman of each county to submit these printed propositions to the candidates of each of the political parties making nominations, and ascertain in writing whether these candidates are willing to work in good faith and earnestly for carrying out these views. If the candidates of both the great political parties agree to sustain them, then let the farmers vote according to their political preferences. If the candidate of one party fails or refuses to agree, and the other candidate does agree, then vote for this latter despite his politics. If the candidates of both parties fail or refuse to respond favorably, then and only then let the farmers nominate a candidate of their own. Do this and you will avoid the rock upon which some former farmer organizations have gone to pieces, namely, that these organizations drift into political organizations; for it cannot be claimed with justice that the farmers have organized for the political advancement of certain farmers and not for the interest of all farmers.

A similar plan might be adopted when members of Congress are to be nominated, the Farmers' Congress having determined upon what the farmers of the Union want from the National Government.

Finally, let the farmers have patience; let them organize and learn "to labor and to wait," and in a few years they will have secured all just demands—they should have none other from the State and Federal Governments.

I omitted to state in its proper place that the Farmers' Assembly should demand that a substantial fire-proof building should be built on the public square for the use of the Department of Agriculture.

Trusting that the "Assembly" soon to meet may be the *punctum saliens* of great good to the farmers, I remain,

Very respectfully and truly yours,

Sunny Side, Va.

R. T. W. DUKE.

SCRATCHES IN HORSES.

E. E. P., Franklin county, Maine: This complaint often occurs in animals whose blood is impure, and is much more frequent in Fall and Spring than at other seasons. For an internal remedy, to three-fourths of a pound of sulphur add one-fourth of a pound of pulverized saltpetre and mix thoroughly, so that every spoonful that is taken up will contain three parts of sulphur and one of saltpetre. Give a tablespoonful in the feed every night for a week, then every other night for another week. Wash the leg affected with scratches with carbolic soapsuds, or, if that is not conveniently obtained, use castile soap and add two tablespoonfuls of carbolic acid crystals to each gallon of water. Rub dry with soft cloths after bathing, so as to avoid taking cold, which would aggravate the difficulty. If there is much heat and swelling in the leg, take one pint of good cider vinegar, a half-pint of alcohol and two ounces of pulverized blue vitriol. Put into a bottle and let the vitriol dissolve. Shake thoroughly, then with a sponge wet with the mixture spat the affected part of the leg lightly, being careful to wet all the sores thoroughly morning and night. This will help reduce the inflammation and cause the sores to heal. Should the skin be dry and covered with scurf after the sores have healed, add to a bottle containing six ounces of glycerine one ounce of carbolic acid in crystals, and when thoroughly mixed by shaking apply a light coating once a day, washing it off every few days with warm carbolic soapsuds or castile soapsuds with carbolic acid added, as suggested. Be careful not to have the animal stand where a cold draught of air will come in contact with its heels, also be particularly careful to remove all voidings as soon as dropped. One fourth of a teaspoonful of cayenne pepper two or three times a week, given in a bucket of water, or at night in feed, will have a beneficial effect, as it serves to promote digestion.—*American Cultivator*.

THE amount of nitrogen supplied in manure is very much in excess of the amount recovered in the increase of the crop.

SOME SUGGESTIONS UPON ENSILAGE.

In view of the very probable erection of a large number of silos during the coming season, I venture to make one or two suggestions, which have occurred to me after opening my own silo and witnessing the opening of those of Mr. Abel Smith, M. P., during the past week, for there are two or three points which have often been treated as of minor importance, but which in my judgment have immense influence on the result. For the sake of a proper comparison I will take my own case first. The silage is made from exceedingly coarse grass, which Professor Fream, to whom I sent samples of all the plants unknown to me, kindly shows is entirely destitute of any one of the best grasses. The meadow only taken in hand last year, and which is to be ploughed, was divided into two parts. Eight acres were made into hay and nine were mown for the silo. The grass was coarse and wiry and the silo was filled in two days. Not being chaffed [finely cut, we suppose—E. S. P.], it did not pack well, and was most uneven in spite of extra treading and pressure. The sides were unusually well trodden and weighted, and the body of the silo was weighted with bags of stones to the extent of eighty pounds per square foot placed upon three-quarter-inch boards. The walls of the silo were partly of brick and partly of wood, the wooden sides being lined with Willesden paper, which is stated to be water proof and air-proof. The floor is of beaten earth, and the roof that of the barn. After opening the silo I found that the bottoms of the bags had completely rotted in spite of the dryness of the boards, and when moved the stones fell through. The springiness of the grass had prevented its packing close at the sides, and consequently the spoiled edges were thicker than is usual with ensilage which is chaffed; and the same may be said of the top. The fodder next the wall is quite rotten, while that immediately adjoining is only half destroyed, and is eagerly eaten by pigs. Then comes a dry piece (these sections as it were, being of course very small), which is not fragrant but somewhat musty in smell, although when chaffed it is readily consumed by the cattle. The whole of the remainder is equal in fragrance to the finest sample of clover hay I ever saw, and is ravenously eaten, not only by cows, but by pigs, calves, and horses; and yet, be it remembered, this is made from grass of so common a description that of itself is not worth growing, the hay from the same field being almost refused by the cows, which infinitely prefer good oat-straw. The wooden section I find quite as successful as the brick, although most of the paper lining is completely saturated with moisture, and is apparently of little use in excluding either water or air.

Mr. Smith's silos, three in number, are about fourteen feet deep (being five feet below ground), massively built of brick within a barn, and smoothly faced with cement, the two-foot doors, from the floor to the top, being sealed up by concrete blocks. These pits were filled with vetches and rye, vetches and oats, meadow grass, clover, and maize respectively, and every sample was of the finest description, the clover being very sweet and fragrant, and the maize as perfect as the many

samples I have seen abroad. The tares and oats were sour ensilage, the tares and rye distinctly sweeter, and the grass fragrant and good. The whole of these fodders were chaffed fine, and the solid walls they present, after being well cut, are a most convincing proof that, however successful one may be with unchaffed silage, there is no comparison as between the one system and the other, for there is a decided risk of a large percentage of loss in the one and none in the other. In one of the silos of vetches the food was perfect right up to the very wall, and in the others the spoiled edges were very small. The same may be also said of the tops, which were covered with two-inch planks and weighted to the extent of 112 pounds to the foot with hard bricks. I regard a success of this kind with such a food as tares as of immense importance to the stock-feeder. Mr. Smith kindly told me that one lot of tares was from five acres, and that it yielded fifty tons of ensilage. I have considerable faith in this fodder, and hope to grow maize after my spring vetches, when, should I be fortunate enough to get ten tons an acre, followed by fifteen or twenty tons of maize, I shall more than ever think that our means are being apportioned to the exigencies of the times. But it is possible to go beyond this, for I have seen as heavy a crop as thirty-five tons to the acre, which was grown after vetches. At this rate there is no knowing what stock good land will carry.

My chief object, however, in making these remarks, is to state that, in spite of opinions to the contrary (and I have felt bound to change my own), I believe it is by far the most economical system to chaff everything that is put into the silo. The fodder in this case occupies a smaller space, it can be packed evenly, and the sides can be made almost perfect, which, more than anything else, tends to prevent a very large loss. I believe, also, that the walls should be thoroughly well cemented and smoothed, and then there is little or no fear of loss of any kind. A small sum of money, too, expended upon weighting material will be well laid out; and although stones and guano bags cost a mere nothing, I would infinitely rather have used concrete blocks with handles fixed in in making, pig iron, or hard bricks. These are much more cleanly, present greater facilities in working, permit of far more even weighting, and are always worth their money. I hope some of the many gentlemen who have tried trifolium, tares, lucerne, and such grasses, will give readers of the *Live Stock Journal* the result of the experiment in preservation of its value as food for dairy cows. On behalf, too, of the Ensilage Committee of the British Farmers' Association, I would ask any gentleman who has had special experience with ensilage in connection with milk in any form to give the public the benefit of it.—JAMES LONG, in *London Live Stock Journal*.

WHEN potatoes are fed to cows they ought to be given in connection with other feed. The average ration of potatoes ought not to be more than one fourth to one-third of the entire feed. Raw potatoes ought to be cut in slices, and boiled potatoes ought to be crushed.

BETTING ON RACE-COURSES.

If our legislators understood the difference between encouraging gambling and regulating or controlling it, such an understanding on their part would be greatly to the advantage of the community. They know well that where one man is ruined morally or financially by betting on horse-races, hundreds are lost through betting on the price of grain, produce, or stocks which they never really own, handle, or even see. Yet, in the face of all this, our legislators pounce upon betting on horse-races and make it an offence against the law of the land, while gambling in stocks, produce, and grain is not only permitted, but protected by law.

An amusing little story is told, which will perhaps illustrate how utterly ignorant the great head and front of the anti-betting crusade was of the subject upon which he took such decided and really important action. He was walking up King street one evening, when in passing Thomas' Chop House he heard what he thought to be an auction in full blast. "Dear me," he remarked, "I didn't know Mr. Thomas was in difficulties, but here they are, selling him out, it seems."

"Oh, no! Thomas is all right; it's only old Quimby in there selling pools on the election," explained his friend.

"Pools," said the future father of the pool bill, "Pools! Is that some new device for corrupting the electors?"

"No; pools are usually sold on horse-races."

In due time it was explained to this ponderous moral regenerator that pool-buying was not a species of gambling popular among pew-holders in the more evangelical churches, and that it was not a habit that was very wide spread in business circles generally. It was a good question upon which to rouse moral enthusiasm, as comparatively few of those who make political or business capital out of their morality knew anything about it. Young men who went amiss through vices so scandalous in their nature that they were ashamed to avow them were fond of laying the blame on pool-buying, though many of them never bought a pool in their lives; while the wreck of others, who ruined themselves through gambling in stocks, was carefully laid at the door of the pool-box by the pious old stock-gamblers, who "rigged the market" so that the inexperienced young speculators outside of the ring could not fail to fall into the trap and meet their ruin. The majority of those who voted for the act, the only effect of which was to embarrass legitimate horse-racing and open the door wide for all sorts of knavery, really thought they were taking a step which would crush out gambling in every form.

Now, if legislators could only make up their minds to look at this question with that boldness and honesty of purpose which should always characterize the action of men who aspire to the proud title of statesman, a really great moral reform might be speedily effected, while so legitimate and productive an industry as horse-breeding would be at once relieved of one of its most serious embarrassments.

Let not only pool-selling but book-making be confined to the premises of regularly organized and legally chartered jockey clubs and racing or trotting associations. Let it be absolutely under the control of such clubs or associations, and let each club or association be directly responsible to the Government from which it receives its charter for the rectitude of all its officers, as well as for the good faith in which all racing, trotting, pool-selling, and book-making are conducted on its premises.

The Canadian people are very fond of horse-racing, and our country has already proved itself well adapted to the breeding of race-horses and trotters, but so far as racing and trotting are concerned a singular fatality seems to follow us. First, our sport must needs be dragged through the mud by a gang of knaves, when lo! a lot of that other class of people who shall be unmentionable, but who are proverbially more dangerous than knaves, must come to its rescue, and matters be straightway made much worse than they were before.

As everybody knows, the nearest approaches to perfection are most speedily attained and most surely maintained through the medium of exaggerated types. The trotter is the intensified roadster, just as the race-horse is the intensified saddle-horse and hunter. The first is the outcome of the trotting turf; the second is the outcome of racing. The race-course is the spot where the highest qualities of these animals are to be tested, and yet our legislators are doing all in their power to legislate these high equine types out of existence. It is quite true that Mr. Robert Bonner paid high prices for Dexter, Edwin Forrest, Rarus, Grafton, Maud S., and several others, with no intention of allowing them to trot for money; but, on the other hand, had they never trotted for money how many of them would have ever developed anything like the speed that has made them famous, and which alone brought them under Mr. Bonner's notice? And for a moment let us see what is represented by the running turf. Luke Blackburn, Ten Broeck, and Longfellow are three racing stallions bred on this side of the Atlantic, neither of which could be bought for any sum that has been paid for any single horse in this country; while, so far as imported stallions are concerned, we will quote three purchases. Mr. J. R. Keene paid \$25,000 for Blue Gown and had the ill luck to lose him in bringing him across the ocean; Mr. P. Lorillard paid \$25,000 for Mortemer; while Rayon d'Or cost Mr. W. L. Scott over \$40,000, delivered at his breeding-farm, near Erie, Pennsylvania. It is quite true that we can not point to any such importations by Canadian importers, but with fair play there is no reason why our horse-breeders could not come to the front as rapidly as our cattle-men; and it is not too much to hope some Canadian horse-breeder might yet show the outside world that Canada can win fame with race-horses, just as Mr. Valancy Fuller has shown them what we can do with Jerseys in Canada.

But, aside from prospective successes, it must be admitted that we have much to gain and nothing to lose by placing all sorts of turf speculation under the immediate control of thoroughly reputable and responsible people, and to do this some radical changes must be made in the present enactments concerning betting.—*The Canadian Breeder.*

Editorial.

THE CORN CROP.

The Spring has come, and with it the necessary consideration of the planting and cultivation of this, the most important grain crop of the United States. Its consumption is increasing annually throughout the world, and when not produced in any other country it is mainly imported from ours. Our production has reached the enormous quantity of two thousand millions of bushels, worth, at the average price of forty cents, \$800,000,000. Its money value is the greatest of all farm crops except, possibly, hay. These crops constitute the basis of food for live stock and all domestic animals, and, to a large extent, for mankind.

If farmers do not care to worry their minds about the effect of agricultural productions on the general wealth of the country, they will admit the fact that they have a *pleasurable* feeling when, in the month of April, they can look into their corn cribs and see that their supply is sufficient for the year, and that there will be no stint of bread for their families, or of grain for their animals. This feeling is incentive enough for them to regard this crop of great importance to them. It is useless and unwise to bother their minds about a prospective market price, for, up to the point of a necessary farm supply, it will make no difference whether corn will be worth ten cents or one hundred cents a bushel. The surplus, after an ample farm supply, is a net gain to all farmers, but a deficiency is a serious and inconvenient loss to them.

It ought to be assumed that all American farmers do understand how Indian corn should be cultivated, for it was found here when the first colonies were settled, two hundred and eighty years ago, and has been an abiding and increasing staple ever since. But the most casual observer of the present day will see that its cultivation by many farmers is sadly indifferent and unyielding. Fall and Winter plowing, as a rule, is much neglected on clay lands, so that the pulverizing effects of frost are lost and a good tilth impossible; whilst light and loamy lands may be best plowed in the Spring, just before planting, yet the work on these is generally hurried and badly performed. The most damaging mistake in either case which farmers make is, that they measure their crop by the *extent of the surface* laid out for cultivation. They fail to see that ten acres, well prepared, manured and cultivated, will make largely more than fifty acres badly prepared and cultivated without manure. The case, fairly stated, will stand thus: Ten acres, forty bushels each, 400 bushels; fifty acres, five bushels each, 250 bushels.

This presents a gain of nearly one hundred per centum in the crop, whilst the ten acres, thus cultivated, have doubled their value, and the fifty acres have depreciated. And the further thought and fact comes in, that the labor expended on the excess of *forty acres* was equal to all the demands for the extra cultivation and manuring of the *ten*.

The substance of what we have said of *corn* applies to all other crops, and it is well for farmers to consider *earnestly* (making experiments to ascertain facts) how they may be benefitted by thorough cultivation and manuring—limiting surfaces in these respects—and also by rotation and drainage, which are fundamental factors in successful agriculture.

PLASTER AND SALT.

We have the following inquiries from a reader of the *Planter* in Fauquier county, this State: "Is a mixture of common salt and land-plaster a good fertilizer for the cost? If so, what proportions should be used, and what chemical changes will result from the combination?"

As these questions are put, it might be supposed that the enquirer thought that the combination mentioned would be a *complete* manure, and yet, from his known intelligence, this cannot be so. We, therefore, narrow them down to one: What is the value of salt and plaster mixed together before application to the land in proper proportions? Both salt and plaster are valuable fertilizers when properly used, but we cannot see that a *mechanical* mixture of them before applied to the land would lead to any *chemical* combinations, either advantageous or otherwise. The combinations which may occur after application to the land, it would be impossible for any chemist to define.

A mixture of the two in equal quantities, not exceeding two bushels each, will be a valuable broadcast dressing to grass in the Spring, and we have seen and read of the value of the application of two bushels of salt to the acre on wheat as it commences its Spring growth. As to plaster and its uses, we would advise the close reading of Sir J. B. Lawcs' communication published in our February issue of this year.

That the mixture of these two articles cannot constitute a *complete* manure is evident, for there would be wanting other important ingredients—mainly, the phosphates, potash and ammonia.

POTATOES may be assorted in the cellar on the stormiest days in Winter, even when the thermometer is below zero. This is one advantage of storing in cellars rather than in pits. Doing this now will save much more labor in the Spring.

The Southern Planter.

SUBSCRIPTION: \$1.25 a year in advance, or \$1.50 if not paid in advance.

TERMS OF ADVERTISING. PAGE RATES.

	1 Mon.	3 Mons.	6 Mons.	12 Mons.
One-eighth page	\$ 2 00	\$ 5 00	\$ 9 00	\$ 15 00
One-fourth page	3 50	9 00	16 00	27 00
One-half page...	7 00	15 00	30 00	50 00
One page.....	12 00	30 00	50 00	90 00

COLUMN RATES.

	1 Mon.	3 Mons.	6 Mons.	12 Mons.
One inch.....	\$ 1 00	\$ 2 50	\$ 4 50	\$ 8 00
Two inches....	2 00	4 50	8 00	14 00
Three inches....	3 00	8 00	14 00	25 00
Half column....	3 50	8 50	15 00	27 00
One column....	7 00	15 00	27 00	50 00

Special rates for cover.

Reading notices, 25 cents per line, of briefer type.

EDITORIAL NOTES

FARM IMPLEMENTS.

We can supply our subscribers with one or two hundred dollars worth of farm implements at a liberal discount from manufacturers' prices, which will be sent direct from dealers' hands.

THE FARMERS' CONVENTION.

TO MEET HERE ON 15TH APRIL.

This Convention may, and probably will, prove of great advantage to the agricultural interests of the State. It is therefore worthy of the attention of farmers in every county, who should see that they are fully represented. The full text of the address, which defines its objects, is printed in this issue of the *Planter*, to which is appended an editorial note giving information in respect to reduced transportation rates offered to delegates. Our exchanges indicate movements as to delegations from many counties of the State, so that it is expected that the Convention will be largely attend-

ed by representative farmers; and we hope no county will be luke warm with regard to representation.

THE FAULTS OF THE PLANTER.

A subscriber in Nelson county, this State, in remitting his subscription for the present year, takes occasion to commend the *Planter* in such terms that our modesty forbids us to repeat, but, at the same time, rebukes it in the following terms: "There is only one alteration I could desire in the *Planter* to meet my ideal of a perfect periodical for my use, and that is to print more about fruit, grapes especially, and less about wheat."

Now we would beg our friend to remember that wheat furnishes bread to more than one-half of the inhabitants of the world, and is one of the most valuable exports from our own country, so that it cannot be ignored by a journal which circulates in all the States. As to grapes and other fruits, which are rapidly increasing in production, and are already a source of great national wealth, we will say that our columns are open to every communication which may be sent us in respect to them; and for such communications we should look with most confidence to *Nelson* and *Albemarle* counties. Several months ago, Mr. Ott, of Nelson, called on us and promised an article on grapes, but it is not yet forthcoming.

OUR SUBSCRIBERS.

We extend our thanks to those of them who have made remittances since receiving bills which were sent with our January and March issues. The largest number are those who have not remitted, and what puzzles us most is the fact that some of the oldest and best friends of the *Planter*, and of ourself personally, are several years in arrears. They seem to forget that what to them is a trifle is in the aggregate much to the working resources of the paper. It is probable that many publishers suffer under this neglect by subscribers, for we see the subject frequently mentioned in other papers.

There is another point which seems with some subscribers to put their minds at rest as to obligations if a paper is sent to them after the period for which they have paid.

On this point we will quote from another agricultural journal:

"VERY IMPORTANT—READ THIS.—Parties often complain that we send their paper after the time has expired that they paid for, but how are we to know that they do not want it unless they notify us, or direct their postmaster to do so?

We ordered a miller here in the city to send us a bushel of meal the first of the week, and he did so, and continued to do so for four consecutive weeks. We ate up his meal and he presented his bill for the four bushels of meal, and we had not ordered but one bushel, yet as we had ate his meal, we felt honor bound to pay him for the four bushels, and we did it."

"NEWSPAPER DECISIONS.—1. Any person who takes a paper from the post-office, whether directed to his name or another's, or whether he has subscribed or not, is responsible for the payment.

2. If a person orders his paper discontinued, he must pay all arrearages, or the publishers may continue to send it until payment is made, and collect the whole amount, whether the paper is taken from the office or not.

3. The courts have decided that refusing to take newspapers and periodicals from the post-office, or removing and leaving them uncalled for, is *prima facie* evidence of intentional fraud."

The summing of the matter is, that those of our subscribers who are most delinquent must be dropped, and their bills sent to collecting officers.

THE PLANTER'S PREMIUMS.—In order to encourage, as far as possible, beyond the circulation of our journal, an active and energetic movement in the farming interests in our own State, we offer a premium of \$10 cash, or its equivalent value in a gold medal, for the best essay on each of the following subjects:

First. On the best rotation of our staple crops of corn, wheat and oats, tobacco, cotton, and grass. The methods of cultivation, manuring, drainage, &c., to be defined, but either crop mentioned may be omitted in sections where it is not habitu-

ally grown. The general object is to show the value of rotation in the production of crops and in the improvement of the land.

Second. On the diversification of crops which may not be subject to systematic rotation.

Third. On *special* crops; and these may include fruits and vegetables.

Fourth. On the thorough cultivation and manuring of any crop on a surface limited to such conditions, and the advantages over large surfaces with ordinary or fair cultivation without manure, or but a slight application of it.

Rules to be observed in respect to these premiums:

1. Authors must prepare and forward their essays to the Editor of the *Southern Planter* before the 1st of June next, and each essay must have an anonymous signature, but it must be accompanied by a *sealed envelope*, containing the full name and post-office address of the writer. These envelopes will not be opened until a competent committee of three persons have made the awards. Authors will number the envelopes, or wrappers, containing their essays, 1, 2, 3, or 4, so as to indicate the subject discussed. It is desirable that essays shall not be too lengthy, but as much condensed as the subject will admit of.

2. The premium essays, and others of merit, will be published in the *Planter*.

The successful authors will be notified as soon as the awards are made, and they will at once receive the premiums after notice whether they desire payment in money or a gold medal.

The papers in this State which exchange with the *Planter* will please notice these premium-offers, so that they will be brought to the attention of as many farmers as possible.

WORK FOR THE FARMERS' CONVENTION.—The committee appointed to prepare for the organization and suggest business for the Farmers' Convention, to meet in this city on the 15th of this month, met on the 17th and 18th of March, and recommended the Hon. A. Koiner, of Staunton, for Pres-

ident, and a number of prominent farmers in different parts of the State for Vice-Presidents. Committees were then appointed, to report to the Convention on the following subjects :

1. A plan for a permanent organization of an Agricultural and Industrial Association for the State.

2. To prepare the draft of a bill for amending and re-enacting the present law establishing the Department of Agriculture to insure its greater efficiency.

3. To prepare a bill to establish a Department of Immigration, Labor, and Statistics.

4. To submit a plan and bill for one or more Agricultural Experimental Stations.

5. To submit additional subjects for the action of the Convention.

THE Commencement exercises of the *Richmond Medical College* take place on the 2d of this month.

THE EUREKA INCUBATOR.—The Great Poultry Show at the World's Industrial and Cotton Centennial Exposition is now over. The Eureka Incubator was awarded the First Prize, Gold Medal, for the best Incubator that was ever exhibited, hatching 967 chicks from 1,000 eggs, a record that never was equalled in a public exhibition or anywhere else. Thousands saw it, and saw the chicks.

This wonderful hatch was made on account of the perfectly regulated heat, and the great care used by *The Clocks* in turning the eggs without having to take the eggs out of the incubator. This hatch was made in a 1,000 egg machine, and a single No. 2 burner kept up the heat.

The advertisement of this incubator has been seen in the *Planter* for more than a year.

WE are in receipt of circulars from Messrs. W. H. Fay & Co., of Camden, N. J., setting forth the merits of their Manilla goods used for building purposes, and also circulars descriptive of their Carpeting and Rugs made of the same material. From the numerous testimonials given Messrs. Fay & Co., and from the large use to which such material can be put, we should judge these goods have met and would still continue to meet a most hearty welcome, the expense being only nominal, and in some

kinds of their goods only one-half the cost of the usual materials for which they are substitutes, such as tin and slate for roofs, and for plaster on walls and ceilings. Messrs. Fay & Co. offer to send a 16-page circular, with samples of their goods, free of charge to those who desire them.

COMMUNICATIONS.—We have several lying over, and we again call the attention of correspondents who desire their articles to appear promptly to the fact that our forms are closed from the 10th to the 12th of the month preceding the date of its issue.

BOOKS AND MAGAZINES.

We have received from United States Commissioner Loring, the Report of his Department for 1884. It is full of valuable information, statistical and otherwise, of the agriculture of the country, diseases of cattle and fowls, entomology, &c. We are glad to see a marked improvement in the Department by furnishing the public with its Report with the close of each year. Formerly these Reports came out a year or two after date, when the subjects of them had passed into history and had no present application.

We have from the *Department of Interior*, by the courtesy of Congressman O'Ferrall, a Report on the Cotton Production of Virginia, with a brief discussion of the agricultural features of the State, by W. C. Kerr, Ph. D., State geologist of North Carolina, Special Agent. There are *ten* counties mentioned as producing cotton, and none of them have an average of more than a half bale (475 pounds), to the acre; and other products mentioned, such as tobacco, wheat, corn, potatoes and oats are not more prolific.

Our farmers in this section must look closer to cultivation and manuring.

THE NORTH AMERICAN REVIEW for this month is received. It is impossible, with our limited time, to give a full notice of this issue of a valuable journal. We must permit our eyes only to rest on such arti-

cles as are most striking and appropriate to our own publication. Such we mention as "The Law's Delay," "The Agricultural Crisis in England, and "How to Reform English Spelling."

Published at No. 30 Lafayette Place, New York, price, \$5.00 per annum, pp. 96.

HARPER'S MONTHLY for this month has much interesting matter in reading and illustrations. It is especially so to Virginians, and to Richmond people in particular. The article headed "Some Richmond Portraits" is an interesting pen-sketch of distinguished men and women, with portraits, commencing with Col. Wm. Byrd, the founder of the city and the owner of the Westover estate; and then follow Evelyn Byrd, his daughter, Jno. Mayo, Abigail Mayo, Mary Mayo Scott, Maria Ward, Mrs. John Wickham, Mrs. Joseph Gallego, Mrs. John Bell, Elizabeth R. Barksdale, and John R. Thompson.

GODEY'S LADIES' BOOK FOR APRIL. Our lady friend, to whom we handed the April *Godey*, writes us: "*Godey* for April, in all respects, maintains its high position among the Monthlies. The frontispiece 'Prayer' is a gem, and we pause before it, a little anxious, we confess, ere we turn, girl-like, to look at the 'Spring Styles.' Could anything be more exquisite than the 'Hats?' And the 'Fashions—are they not just grand? The reading in *Godey*, we think, is of the best character of light Literature, always pointing a good moral, and teaching good and useful lessons."

THE CENTURY for March is full of interesting history and illustrations. Its leading illustration is a portrait of Daniel Webster, the great statesman, which is followed by a brief biography. Then we note among its other valuable matter (illustrated) "Some Recollections of Charles O'Connor," "The First Fights of Iron-Clads," "Memoranda of the Civil War," with unpublished letters of Generals B. S. Ewell, Fitzhugh Lee, G. T. Beauregard, &c.

Published by the Century Co., New York city. \$4 per year.

THE POPULAR SCIENCE MONTHLY for this month is a valuable number, In its table of contents we have read with interest "A Chapter on Fire Insurance," "Liquor Legislation," "Aristotle as a Zoologist," "Apiculture as a National Industry," "Chemistry of Cooking" (continued), &c.

Published by D. Appleton & Co., New York. \$5 per annum; and will be clubbed with the *Planter* at reduced rates.

CATALOGUES.

Chas. C. McColgan & Co., Baltimore, Md. Seeds, Plants, Roses, Fruits, &c.

Ellwanger & Barry, Rochester, N. Y. No. 5. Selected Roses.

Lewis Roesch, Fridonia, N. Y. Grape-Vines, small Fruit Plants, &c.

Matthew Crawford, Cuyahuga Falls, Ohio. Small Fruits.

I. H. Bell, Harrisonburg, Va. Fresh and reliable Seeds and Flower Plants.

Jno. S. Collins, Moorestown, N. J. Fruits, Flowers, &c. He makes a specialty of the *Comet Pear*.

C. S. Medary, 36 Wall street, N. Y. Proprietor of the New York and New Jersey Carp-Fisheries.

Sedwick Bros., Richmond, Ind. Wire Netting, Fences, and Gates; also Russell Wind-Engine, "Boss" Poultry Coop, &c.

Geo. S. Joselyn, Fridonia, N. Y. American Grape-Vines, small Fruit Plants, &c.

Lang's Live Seeds, F. N. Lang, Baraboo, Wis.

I. A. Everett, Watsonstown, Pa. Farm, Garden, and Flower Seeds.

H. A. Staples & Co., this city, Land Agents, containing list of Farms and city Houses and Lots for sale.

Ashton Starke, this city. A beautiful and comprehensive enumeration of Farm-Implements and Machinery.

NEW ADVERTISEMENTS.

A. B. Farquhar, York, Pa. The "Key-stone Corn-Planter." Through Alden & Bro., agents, Cincinnati, Ohio.

Kentucky Stock Farm, 16-page monthly. Through Lord & Thomas, Chicago, Ill.

Elder Publishing Company, Chicago, Ill. Engravings of our Presidents. Through Ayer & Son, Philadelphia, Pa.

B. M. Wooley, M. D., Atlanta, Ga. Opium and Whiskey Habits Cured. Alden & Bro., Cincinnati, Ohio.

E Van-Norden & Co., Boston, Mass. Incubator. Through Edward Brady, Advertising Agent, Boston.

RENEWALS.

Fourqrean, Price, Temple & Co., leading Dry-Goods men of this city, offer their Spring Goods, and we call especial attention to their advertisement, and to the feature by which purchases can be made by sample.

The Peabody advertisement, coming through Dauchy & Co., Advertising Agents, New York, is renewed for one year.

CHANGE OF ADVERTISEMENTS.

Messrs. Allison & Addison make a change of their Tobacco Fertilizer from *tobacco-beds* to the *growing crop*.

Messrs. Travers, Snead & Co, to Spring Crops.

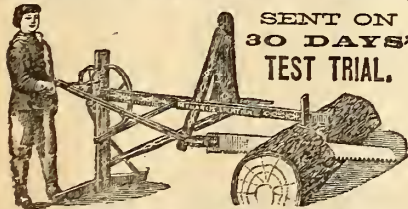
Ashton Starke introduces a cut of the celebrated "Deere-Wheel Cultivator."

Watt & Call to seasonable Implements and Machines.

These changes we ask especial attention to.

Sawing Made Easy.

MONARCH LIGHTNING SAWING MACHINE

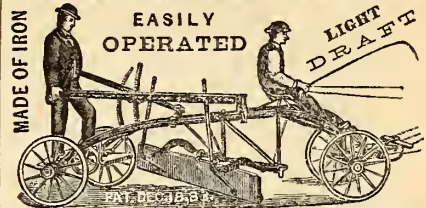


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30 DAYS'
TEST TRIAL.

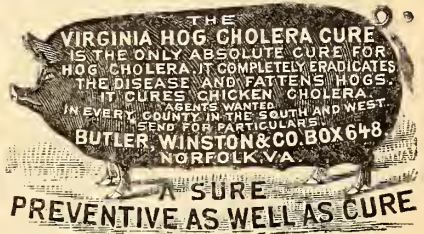
For logging camps, wood-yards, farmers getting out stove wood, and all sorts of log-cutting—it is **unrivalled**. Thousands sold yearly. A boy of 16 can saw logs **fast and easy**. Immense saving of **labor and money**. Write for elegantly illustrated catalogue in 6 brilliant colors, also brilliantly illuminated poster in 5 colors. **All free.** Agents Wanted. *Buy money made quickly.*

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LAMBORN ROAD MACHINE



LIGHT, STRONG, SIMPLE, DURABLE.
LAMBORN ROAD MACHINE CO., Limited, MEDIA, PA.
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Send Ten Cents and get a sample copy of the

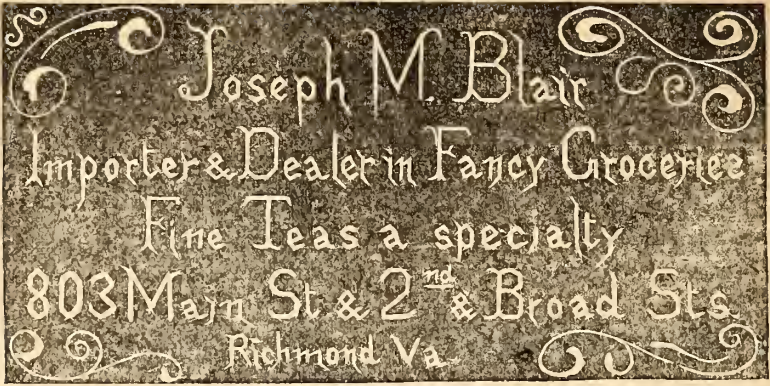
Southern Poultry Guide

A monthly journal devoted exclusively to Fancy Poultry, Pigeon and Pet Stock. It is interesting to both old and young, and should be read by every one interested in the improvement of poultry. To advertisers it offers extra inducements. The circulation is large, and it is the only journal of the kind published in this part of the Southern States. The subscription price is only \$1.00 per year. Address

E. B. McARTHUR & CO.,
Meridian, Miss.

A PRIZE. Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All, of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address, TRUE & CO., Augusta, Maine. mh 6t

300 CHICKENS HATCHED AT ONCE
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Simplest, Cheapest, and Most Reliable.
Price Lists Free.
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Having had a long experience in buying

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GROCERIES

He is fully competent and capable of selecting only
those goods that are

FREE FROM IMPURITIES AND ADULTERATIONS.

PRICES AND SAMPLES WILL BE CHEERFULLY SENT TO ANY ADDRESS

SEED CORN!

I have an excellent corn which I will sell for seed. This corn is very prolific, and weighs when well matured sixty pounds to the struck bushel. Brings on the market two and three cents more than any other corn. This corn is suitable for bottom lands and heavy clay soils—a hard, white flint corn, standing more water than any corn known. I have oft times had it flooded with but little or no damage. I never average less than fifty bushels to the acre, and this amount on land running in corn from seven to thirty years. In 1881 I measured 105 bushels shelled corn from one selected acre. I can supply any person wanting good Seed Corn for bottom lands or table lands, or more elevated heavy clay soils, at \$1 per bushel, delivered on the cars at Bremo; if bags are furnished free by purchaser, or will ship through Messrs. Simpson, Bass & Co. or Messrs. Sublett, Cary & Co., of Richmond, Va., I furnishing bags, at \$1.15 per bushel.

fe tf

B. H. BRAGG, Bremo Bluff, Fluvanna Co., Va.

—THE—

UPPER JAMES RIVER VALLEY.

All things considered, the advantages of this section cannot be well over-estimated. The advantages are, viz.: Health and salubrity of climate, good and productive soil, abundant supply of pure water, excellent timber, an inexhaustible supply of the staple minerals (coal and iron), accessible to the best markets with rapid transit. These lands are now cheap, yet must rapidly increase in value, and make sure and speedy fortunes to those who secure them at present prices. Send stamp for pamphlet, giving full particulars. Address,

W. A. PARSONS,
Maiden's, Goochland Co., Va.

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HARNESS THE WIND

BY USING THE

MANVEL

WIND ENGINE.

Carrying Wind Mills on hand at Boston, New York City, Rochester, N. Y.; Philadelphia, Pa., and many other points, operating our experienced men to plan and execute work from these points, enables us to do superior work promptly, thus insuring satisfaction to the buyer. We contract to force water from wells or springs to any point for Farmers, Dairymen, Gardeners, Florists, Villages, Private Residences, &c. We can refer you to parties using. Write for our Catalogue and Power Engines, Pumps, Tanks, &c., giving us an idea of the kind of work you want done. Address all communications to

B. S. WILLIAMS & CO., Kalamazoo, Mich.

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DAIRYMEN and FARMERS should use only the "Arm and Hammer" brand for Cleaning and Keeping Milk Pans Sweet and Clean. It is the Best for all Household Purposes.

HOQ DISEASES.—The "Arm and Hammer" brand Soda and Saleratus is used with great success for the prevention and cure of HOQ CHOLERA and other diseases. Mix with the animal's food.



"ARM & HAMMER BRAND"



To insure obtaining only the "Arm & Hammer" brand Soda or Saleratus, buy it in "pound or half pound" cartons which bear our name and trade-mark, as inferior goods are sometimes substituted for the "Arm & Hammer" brand when bought in bulk. Ask for the "Arm & Hammer" brand SALSODA (Washing Soda).

Jan 4t

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THE SCIENCE OF LIFE. ONLY \$1.
BY MAIL POSTPAID.



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A Great Medical Work on Manhood.

Exhausted Vitality, Nervous and Physical Debility, Premature Decline in Man, Errors of Youth, and the untold miseries resulting from indiscretion or excesses. A book for every man, young, middle-aged and old. It contains 125 prescriptions for all acute and chronic diseases, each one of which is invaluable. So found by the Author, whose experience for twenty-three years is such as probably never before fell to the lot of any physician. 300 pages, bound in beautiful French muslin, embossed covers, full gilt, guaranteed to be a finer work in every sense—mechanical, literary and professional—than any other work sold in this country for \$2.50, or the money he refunded in every instance. Price only \$1 by mail, postpaid. Illustrative sample, 6 cents. Send now. Gold medal awarded the author by the National Medical Association, to the President of which, the Hon. P. A. Bissell, and associate officers of the Board, the reader is respectfully referred.

This Science of Life should be read by the young for instruction, and by the afflicted for relief. It will benefit all.—*London Lancet.*

There is no member of society to whom The Science of Life will not be useful, whether youth, parent, guardian, instructor or clergyman.—*Argonaut.*

Address the Peabody Medical Institute, or Dr. W. H. Parker, No. 4 Bulfinch Street, Boston, Mass., who may be consulted on all diseases requiring skill and experience. Chronic and obstinate diseases that have baffled the skill of all other physicians a specialty. Such **HEAL THYSELF** treated successfully without an instance of failure. Mention this paper. ap 1y

HARD WOOD ASHES as a Fertilizer.

150 car-loads for sale. Can be delivered at any railroad station in the Eastern Middle, or Southern States in car-loads of 14 tons. Dry, unleached ashes from 25c. to 30c. a bushel; leached ashes from 15c. to 18c. a bushel, according to location.

JAMES HARTNESS, Detroit, Mich. ap 6t
THOS. B. GILES, Agent, Seaford, Del.



Is CHEAP, STRONG, easy to apply, does not rust or rattle. Is also A SUBSTITUTE FOR PLASTER, at Half the Cost; outlasts the building. CARPETS AND RUGS of same, double the wear of oil cloths. Catalogue and samples free. W. H. FAY & CO., Camden, N.J. mh 7t



Water Wheels & Millstones
Best and Cheapest in the World, Manufactured by A. A. DeLoach & Bro., Atlanta, Ga. 46 page Catalogue Free.



ap 1y

HOME INDUSTRY!

DIXIE SHIRTS!

"ACME" DRAWERS

FINE DRESS SHIRTS a specialty.

UNDERWEAR of all kinds ready made or to measure at short notice. Write for prices and printed blanks for self-measurement. We employ the most experienced cutters and skilled operators. We use the most improved steam machinery in our factory.

We guarantee the quality and fit of every garment that goes from our factory. Correspondence solicited.

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J. T. GATEWOOD,

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116 E. BROAD STREET, RICHMOND, VA.

Families having a surplus of anything produced in the Dairy, Barnyard or Garden, will do well to advise with me. Correspondence solicited. ja 1y

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Real Estate Agent,

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Buyers of Real Estate are directed by this Agency to the very greatly favored sections of Virginia, embracing the Piedmont counties, the James River Valley west of Richmond, and the Valley of Virginia and West Virginia contiguous to the great C. & O. Railway. DOLIN'S LAND ADVERTISER free.

Correspondence solicited with buyers, and sellers of Real Estate. Enclose postage stamp.

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1518 E. Main St., Richmond, Va.

All kinds of Seeds and Plants.
Agent for Lister Bros' Standard Fertilizers.
Catalogues mailed free on application.
Mention the Planter.

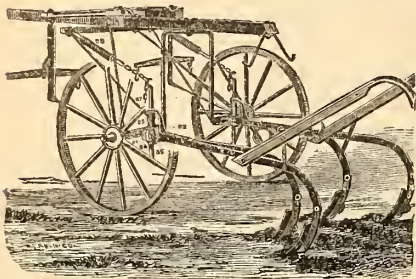
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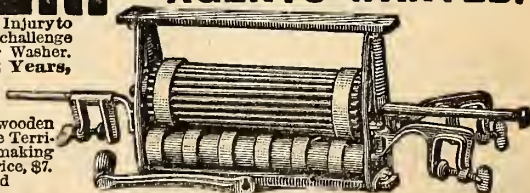
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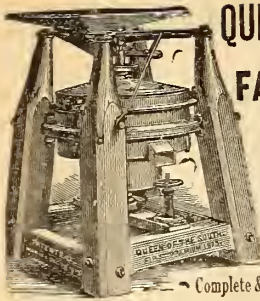
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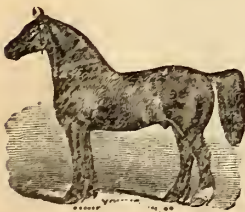
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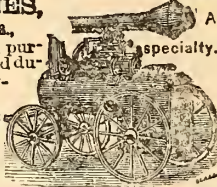
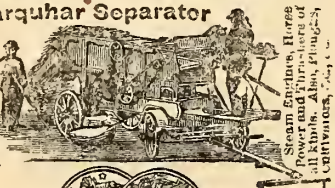


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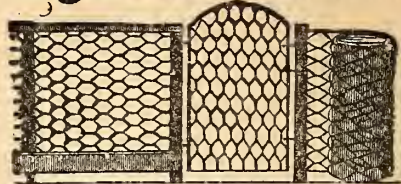


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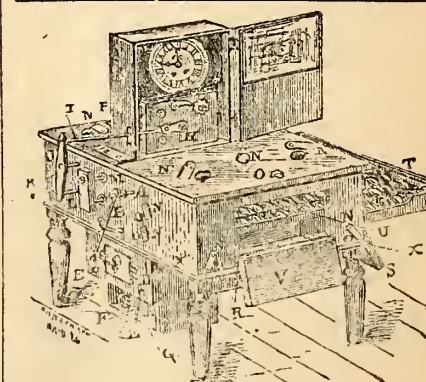
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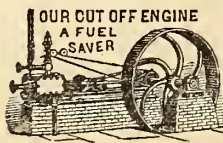


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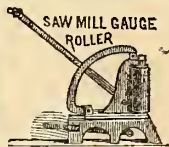
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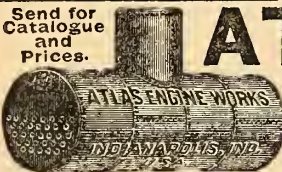
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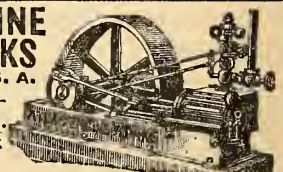


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