


Bk.





Digitized by the Internet Archive
in 2012 with funding from
LYRASIS Members and Sloan Foundation

Rare Bk.

S
1

,S68

" 46

Feb. - Apr.

1885

THE SOUTHERN PLANTER

DEVOTED TO

AGRICULTURE, HORTICULTURE, LIVE STOCK AND THE HOUSEHOLD.

Office, 26 Wilkerson's Hall, Ninth Street.

T. W. ORMOND,	- - - - - PROPRIETOR.
W. C. KNIGHT,	- - - - - EDITOR.
W. C. JACKSON,	- - - - - ADVERTISING AGENT.

46th Year. FEBRUARY, 1885. No. 2.

CONTENTS :

Self-Supporting Employment for Ladies in the South.....	47
Mistakes of Farmers.....	52
Trees Around Farm Buildings.....	52
Making Cows Give Milk.....	53
Animals Out of Condition.....	53
Farm Implements and Machines.....	53
Use of Commercial Fertilizers.....	54
Plaster.....	55
Agricultural Papers.....	57
Science on the Farm.....	59
The Oldest City in the World.....	60
Salt for Live Stock.....	60
Treatment of Farm Stock.....	61
The Farmer.....	62
Pennsylvania Farming.....	63
Colic in Horses.....	65
U. S. Commissioner of Agriculture.....	66
Jersey Cattle—Their Origin and Development.....	67
A Fight with an Eagle.....	71
Agricultural Products.....	72
The Virginia Poultry Show.....	73
Experiments with Manures and Crops.....	75
What an Old Farmer Says.....	76
The Live-Stock Department of the New Orleans Exposition.....	77
Farmers and Sheep-Raising.....	78
Laws of Capital and Trade.....	79
Agricultural Education.....	81
Whitewash for Outbuildings.....	82
More Eggs in Winter.....	82
“Outlook for Producers”.....	83
South Carolina Superphosphates.....	84
The Future Supply for the Piedmont Grazier.....	85

EDITORIAL :

Agriculture and Its Permanency.....	87
Curing Tobacco by Open Fires and Smoke.....	88
The World's Industrial Exposition at New Orleans.....	90
The Virginia State Agricultural Society.....	91

EDITORIAL NOTES :

Plant-Beds for Tobacco; Subscriptions; Women's Work; A Good Corn-Shellor for Many Farmers; Magazines; Reports; Catalogues; New Advertisements.....93-96

Richmond: J. W. Fergusson & Son, Printers.

GREAT GUNS!!

UNPRECEDENTED LOW PRICES FOR

Farm Implements for 1885.

ASHTON STARKE, Richmond, Va.

“Iron Age” Cultivators, Malta Shovel Plows,

“Deere” Wheel Cultivators, Lever Straw Cutters,

Smoothing Harrows, Broadcasters,

Sulky Plows, Wheelbarrows, Churns, &c.

“Buckeye” Pumps” will force water anywhere.

Iron Fencing for sections and yards put up in the country.

New improved “Wood’s” Mowers and Binders.

Thomas’ Hay Rakes and Tedders.

TAKE NOTICE! Don’t buy a single implement until you have gotten our prices. We know we can sell you.

“OLD HICKORY” WAGONS, BUGGIES, &c.

[fe 6t]

[ESTABLISHED 1866.]

WM. H. PALMER, President.

JOHN OTT, Secretary.

JOHN ENDERS, Vice-President.


Southern Fertilizing Co., RICHMOND, VIRGINIA,

—MANUFACTURERS OF—

STANDARD FERTILIZERS.

For the Spring demand we have :

- 1.—The “Anchor Brand” Tobacco Fertilizer, both for Plant-beds and the general crop. (For Plant-beds this article is furnished in both 100 pound and 200 pound sacks, as may be desired.)
- 2.—The “Anchor Brand” for Cotton.—This article, like the Tobacco Fertilizer, has had nineteen years’ continuous test in the field, and still holds its own against all comers.
- 3.—The “Anchor Brand” for Peanuts.
- 4.—The “Anchor Brand” for Trucks.
- 5.—The “B. P.” (Ammoniated) for Corn.
- 6.—The “Anchor Brand” for Potatoes.
- 7.—The “B. P.” (Potash Mixture) for Grape Vines, Fruit Trees and for Composting.
- 8.—The “F. B.” (Flour South Carolina Bone).

 Apply to our representative at your trading point. If one is not found there address the Company direct

[fe 3t]

JOHN OTT, Secretary.

—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, FEBRUARY, 1885. No. 2.

SELF-SUPPORTING EMPLOYMENT FOR LADIES IN THE SOUTH.

A Prize Essay.

[This is an essay that received honorable mention by the committee who awarded the premium offered by J. M. BLAIR, Esq, Richmond, Va. The Author, we found by the sealed envelope after the award, is Miss J.B. Adams, Baltimore Md.—Ed. S. P.]

In treating of this subject which is daily growing in importance, and occupying so much of the attention of our most thoughtful men and women, it would seem that a few words as to the necessary conditions of success in any undertaking would not be amiss.

As a rule Southern ladies, and perhaps ladies generally, when they have ventured into the "outside world"—the field of labor—have done so in a half-hearted way; as merely doing something to live by till marriage should put an end to their anxious cares for the morrow's bread by providing them a suitable maintenance.

Marriage, however desirable for a woman—and according to God's law it is the most happy and natural destiny she can look forward to—ought not to be her one aim in life: for the manifest reason that all women cannot, in the nature of things, attain that end.

More earnestness of purpose, thoroughness, and persistent effort in a single aim,

are important factors in any successful undertaking. If, then, a woman's efforts as a bread-winner are weakened by the constant diversion of her mind from a chosen occupation by matrimonial speculations, she loses her chance of success in that occupation in proportion to her lack of interest in it.

Starting out, then, with the idea of being an earnest worker; independent of all masculine aid except as in the regular course of business one may help another, will be a great point gained. It is to be remembered that all work *well* done is ennobling.

Hitherto women have flocked to the school-room. Teaching is highly respectable, and seemed to be almost the only occupation that a lady could take up without losing caste. It mattered not that she had no training, no aptitude, no faculty for imparting the knowledge she had acquired; to teach was respectable, whether success attended the effort or not. In the majority of cases no training was considered necessary.

Happily, the "icy chains of custom and prejudice" are now broken, and never was woman freer to pursue her natural bent in the selection of a calling; and all experience proves that we are most successful in those avocations for which we have natural aptitude or fitness. Let us see in what occupation our Southern women excel as at present reared and educated: and how these occupations may be turned to advantage.

The *Culture of Flowers* is an almost universal occupation with us, both in town and country. In our genial climate flowers grow to the greatest perfection with the least possible care. Now consider the thousands of dollars spent daily in our large cities for floral decorations. There is scarcely a social occasion on which floral designs are not in demand and we all know the extravagance of the demand at funerals. At present they are made almost exclusively by men—professional florists.

This work is natural to woman. Her fertile brain can invent designs which her deft fingers can swiftly execute.

Gardening in all its branches has received much attention from English gentle-women, as witness Jane Chesney's "New Vocation for Women" (in Macmillon's Mag. Vol. 40.) In France and Switzerland it is made a branch of education for girls, as well as boys. Except the important work of preparing the soil, there is but little hard work. Many have done it for pastime, why not others for profit? The growth of flowers for seeds requires less capital and is perhaps commercially more profitable than when the production of the flowers themselves is aimed at. It is well to pay special attention to such plants as one is particularly successful with. Take for instance the old fashioned mignonette, heliotrope, asters, &c.; new varieties are always in demand and bring good prices. The beautiful orchids, palms, ferns, and foliage plants which seem to grow under the fostering care of some amateur gardeners as if for the very love of growing, bring immense prices in the large cities, while the homeliest old-time balsams, sun-flowers, dahlias, pansies, &c., are perfected and cultivated to such a degree as to be commercially of considerable value.

To horticulture it is easy to add *Fruit Culture* :

2. The orchard is not outside of woman's domain. Grafting and budding ; selecting and packing the ripened fruit, who could better accomplish this kind of work? In these pursuits especially I would say, work upon the principle of doing the very best that can be done. Raise the choicest fruits and flowers ; select them carefully and offer them for sale in the most attractive style. It will pay you to have your rosy-cheeked apples, luscious grapes, plums, peaches and pears free from dust, and packed with neatness and care.

3. *Silk Culture* which has been receiving much attention of late years, is a growing industry which Southern ladies will do well to look into. Mr. Crozier of Corinth, Mississippi, spent eight years in visiting Asia Minor, Syria, Turkey, Wallachia, Persia and Japan in search of the best breeds of silk worms. He seems to have made an exhaustive study of the subject ; and after ten years, experience in Missouri, Kansas, North Carolina, Louisiana and Mississippi, concluded that none of the silk growing countries he visited were better adapted to silk culture than the Southern and Middle States.

The Corinth Mississippi Silk Co. offered, in 1882, 1000 eggs for \$1.00 and mulberry trees a year old for \$10.00 per hundred. They offered also to pay cash at Lyons prices for all good cocoons. The Woman's Silk Culture Association at Philadelphia makes the same offer, and will pay for cocoons according to the market value of the silk obtained from them. Late experiments have shown that the osage orange, of which we have an inexhaustible supply in the South, is better food for the worms than the mulberry.

Of course it is impossible within the limits of an essay like this to go into any details of methods of such occupations as are discussed : but those interested who wish to take up silk culture for instance can obtain circulars of information from the Woman's Silk Culture Association of California. It is an occupation of exceeding interest, and has the great advantage of not requiring a large outlay of money.

4. *Poultry Raising*, even without any of the new patent incubators, can be made vastly profitable by the sale of eggs alone : nor need this industry be confined to country people, though of course poultry can be raised at less expense on a farm than in town.

A judicious selection of good breeds of fowl, careful pains taking, attention to the henary, which by the way should not be over-crowded, is almost sure to repay amply the outlay in the beginning, which may be very small ; and eventually to yield a good profit. In this, as in all other pursuits, concentration of energy is the prime factor of success.

Leaving the domain of garden and field, let us see what can be done with the kitchen fire. Next to the cultivation of flowers, Southern women excel perhaps in the (5) *Creation of Table Delicacies*. Many well-to-do families in cities would be glad to purchase at good prices, such home-made delicacies as would yield a handsome profit to the producer. Notwithstanding this day of canned goods, there are some things to be desired that are not found in canne-

ries. The old fashioned preserves, marmalades, jellies, sweet pickles &c., that in our childhood were the delight of our hearts, and the pride of our grand-mothers, have almost disappeared from our tables, and their places are supplied with canned horrors. A despairing writer in Harper's Magazine sometime ago asked, "Where, with the fullest of purses, can one buy quince marmalade?" Thousands of families live upon baker's bread who would gladly pay the same prices for a good article of home-made bread if they could be regularly supplied with it. The profit on bread is enormous. So with cake and pastry. A lady in Maryland finds ready sale for spiced beef at thirty cents per pound, the profit on which is fully 100 per cent. What is needed is the regular systematic production of such desirable articles as house-keepers need, and a ready market can easily be found. The grocer from whom supplies of flour, sugar &c., are bought, would in most instances take such products as are saleable on commission. Here again I would caution the novice against attempting too much.

If you are a first rate bread maker, stick to bread making—don't scatter your energies. Have regularly at your place of deposit a fresh supply; and have an order-book always ready for your customers when special supplies are needed. Let your aim be to produce a *superior* article; remember that you cannot compete with bakers and canners; but you may certainly produce what they cannot; a wholesome and toothsome article of food; and if offered at a fair price, it will bring you a good return.

So far I have spoken only of a few pursuits, to which Southern women seem best adapted; and which seemed to the writer the most practical. But there are higher vocations and professions waiting. These call for training and study. The best years of the girl's life must be given to hard work in class-room, the lecture-room, the laboratory or the dissecting room if she is to follow in after years any of the higher professions. These years of toil, days and nights of study are the only "sesame" that shall open for her the gates that guard the treasures of knowledge. Work, earnest, loving work alone will lead to success.

6. *Positions of Trust* are open to women when they show themselves fitted to fill them. Any women of average ability can, with practice, become a good accountant. Book-keeping is by no means beyond her powers. Recent disclosures of fraud, and embezzlement of funds by defaulting clerks, point to a fair opening for women. She has less temptation to dishonesty than man has; why should she not put herself in training for such work? A druggist of many years' experience said to the writer that it was almost impossible to obtain a reliable clerk for his business. The temptation and opportunities to drink are so great. What more beautiful or interesting study than that of chemistry!

7. The compounding of prescriptions, as well as manufacture of the various preparations, tinctures, extracts, syrups, &c., in constant use in every drug store, is work well adapted to women. The same may be said of telegraphy and type writing.

One might fill volumes with the enumeration of the various occupations and

trades that are open to women: but the vital question is, for each individual woman, "What is *my* special vocation?" "For what are *my* powers, mental or physical, best fitted?" Not "what is most lady-like or fashionable, or least open to social criticism;" but "what can I do *best*, and what is most profitable to soul and—purse." A true woman can ennoble the meanest drudgery. It is the spirit and mind of the worker, the truthful earnestness of purpose, the honest intentions, the faithful performance of duty, that gives character to toil. And if a woman is to engage in any self-supporting employment she must make toil her daily companion and friend. The markets that are calling for your fruits and flowers; the looms that are ready for your cocoons; the hungry public that are ready to buy your delicious bread and 'jellies or dainty cakes and pies, are impatient; and will not wait while you dawdle. If your supplies are not prompt, they will buy elsewhere.

The woman's cry need no longer be "stitch, stitch, stitch!" The "Song of the Shirt" is now a thing of the past, but the refrain is only changed to "work, work, work!" The curse of Eden is still upon us. Not man only must live by the sweat of the brow; but it rests with woman, perhaps, to transform the curse into a blessing.

Make choice of the fittest calling, pursue it earnestly. As earnestly as if it were the one thing in life worth living for; know it thoroughly, though you know nought else. As a toiler and bread-winner, banish from your mind the long cherished notion of the ideal woman. A creature to be flattered and caressed; to be shielded from the storm and blast, and sheltered always by man's protecting arm; for in this work-a-day world the real and the ideal are as far removed from each other as the heavens from the earth.

JEAN BAYLY.

October 13th, 1884.

HEELING IN APPLE TREES.—If apple trees have been purchased this Fall, it is safer to "heel them in" rather than plant now. The heeling is done by digging a trench in a well drained spot, laying the trees with their roots in the bottom and tops sticking up. The dirt should be packed closely all through the roots, so as not to admit air. No straw or other refuse should be used, as it will make a hiding place for mice.

SUGAR AS FEED FOR STOCK.—The low price of sugar in England is inducing farmers there to inquire into the advisability of feeding it to fattening stock. In this country we always feed more or less sugar to cattle in the staks of Indian corn and sugar cane, and in the sugar beet. Sugar is very fattening, and, if our sorghum industry proves successful, the coarse grades of sugar may be produced cheaply enough to be fed to stock which it is especially desirable to fatten rapidly.—*Prince Edward Island Agriculturist.*

MISTAKES OF FARMERS.

1. To think that any one can farm; that a man who has starved as a canvasser for a patent toothpick or has been unsuccessful as a carpenter, can jump into a business requiring high intelligence and persevering efforts, and being utterly unfamiliar with details, be able to make money.
2. The idea that a large farm, half stocked and poorly cultivated, pays better than a few acres well and carefully tilled.
3. What is it but the worst kind of a mistake to pay hundreds of dollars for good farm machinery, and allow it for want of proper shelter to rot and become useless a year or so sooner than it should?
4. It is a mistake to let year after year pass by with no attempt to improve the quality of the farm stock. Blooded cattle pay. They make beef, the cows give more and richer milk. Better blood in horses pays. A Norman or part Norman colt is a valuable piece of property.
5. To let foolish pride or narrow minded prejudice prevent the adoption of new methods when they have been proved by practical men.
6. To get up after the sun, lean on fork handle, speculate for an hour or two upon what the weather is going to be, let the weeds get a good start and the wonder why farming don't pay.
7. To leave a lot of unchopped wood, wet or half-split, at the pile, a lot of old harness hanging in the kitchen, and muddy tracks in the dining-room and expect to see the women folks good natured.
8. To have a lot of half-bred, emaciated, lonesome-looking fowls, roosting dejectedly in some old cottonwood tree when a few good healthy, Plymouth Rock or Brahma chickens, properly housed, would make the poultry yard an honor, instead of a disgrace.

TREES AROUND FARM BUILDINGS.

Many of the buildings of the country have around them no trees nor shrubs and are thus exposed to the direct rays of the sun in summer, and the cold winds in winter, giving a bare and desolate look to the premises. There are exceptions, and these exceptions are increasing and will multiply more should the owners possess the requisite skill of arrangement. But such may be done without this knowledge. All can plant trees and shrubs; their mere presence, however arranged, will be an improvement, affording protection and adding to the view. If not systematically displayed, there is the suggestion of nature in her primitive form; only do not plant so that the trees form a dense mass, causing dampness and a lack of free air, or crowd upon the buildings; have in view what space the tree will occupy when grown and there will be little danger. The beauty of planting trees, is to have them stand clear whether promiscuously scattered or in rows. A variety of trees is an improvement and there are plenty of the best sort for the purpose, such as the elm, maple, basswood and walnut. One of the finest trees in America is the tulip. The butternut makes a beautiful meadow tree; its natural form is graceful; so are some of the forms of the willow which flourish best along moist places or streams, or by a spring. Among evergreens are the hemlock and the white cedar, the hemlock standing at the head for attractiveness in the fineness and density of its foliage, which can be secured admirably by a little care in clipping the branches; but patience must be had with this tree, as it is a slow grower, doing better after it has attained its size. Set out the trees early in the spring, before the buds push, with plenty of roots, selecting small, rather than large trees, as more roots in pro-

portion to top can be secured, and the smaller will make the handsomest trees, and do it sooner. Manure the ground, if not sufficiently rich, and if cultivated besides all the better. Thus treated, in five or six years there will be an array of handsome, young trees, improving each year, and adding to the value and attractiveness of the place, to say nothing of the comfort which their shade and the protection from storms afford. Not only the dwellings, but the barn also should have its trees.

MAKING COWS GIVE MILK.

A writer in the *Southern Farmer* says that his cow gives all the milk that is wanted in a family of eight, and that from it, after taking all that is required for other purposes, 260 pounds of butter were made this year. This is in part his treatment of the cow: "If you desire to get a large yield of rich milk give your cows every day water slightly warmed and slightly salted, in which bran has been stirred at the rate of one quart to two gallons of water. You will find, if you have not tried this daily practice, that your cow will give 25 per cent. more milk immediately under the effects of it, and will become so attached to the diet as to refuse to drink clear water unless very thirsty. But this mess she will drink almost any time and ask for more. The amount of this drink necessary is an ordinary water pail at a time, morning, noon and night."

ANIMALS OUT OF CONDITION.

When animals are out of condition and lose their appetite, with no particular symptoms besides, excepting flatulency, indigestion is indicated. When this occurs, as it is apt to do with animals fed much grain, the stomach needs a rest more than medicine, and medicine should be given, if at all, with great care. Generally, dieting will soon restore the digestive functions to healthful action; but it may be advisable to begin this by clearing out the bowels with a dose of physic. Linseed oil is the best purgative, soothing and cooling the system, and not drastic or irritating. One pint for a horse and one quart for an ox is a dose. This should be followed by light laxative feeding, as bran mashes, and linseed and oats steeped in hot water and given nearly cold, with a teaspoonful of ginger in the feed daily, will be useful. The appetite should not be tempted but barely supplied, as it improves.

FARM IMPLEMENTS AND MACHINES.

In no respect are the resources and capacity of our American agriculture more strikingly noticeable than in the average superiority of the implements, tools and machinery used upon our farms and plantations as compared with those of other countries. If, for example, we take Portugal, Spain, Italy and the Christian provinces of the Turkish empire, we shall find them with the peasantry still adhering to the same rude, primitive implements for the cultivation of their crops that were in vogue many centuries ago, when the civilization of these countries was in its early youth. It is important to bear this fact in mind because the civilization of the present Brazilian empire owes its origin to Portugal, and the whole of Spanish-America is about on a par with Spain in agricultural matters. Occasionally we read in the English papers interesting accounts of the systematic efforts of the Prussian government to induce the landowners and the peasant farmers in European-Russia to adopt American implements, tools and machinery in the cultivation and the harvesting of the grain-crops of those provinces.

USE OF COMMERCIAL FERTILIZERS.

Editor Southern Planter :

As supplementary to the article of "Farmer," in your December number, on "Commercial Fertilizers vs. Farm Manures," I beg leave to suggest very briefly the method of using commercial fertilizers, particularly for grain and grass crops, from which the most satisfactory results have been obtained in this section.

It is a well-established fact that, under the most favorable circumstances, the best possible result to be derived from the use of guanoes applied directly to the wheat crop, gives too small a percentage upon the necessary outlay to warrant their general or extended use in this way; as in the Piedmont counties, with a recurrence of such seasons as we have had for the last four or five years, unless we can adopt some more economical method, their use, as a direct agency for procuring a paying crop of wheat, had better be abandoned altogether. I believe the experience of those of us in this section who have tried it proves that this better plan has been discovered.

Among the "fertilizers" enumerated by your correspondent "which have been tested and found to be just such as they are represented," I notice the Orchilla Guano, and it is particularly in regard to this that I ask just a small space in your journal.

In the spring of 1883, induced partly by the reports of some Maryland farmers and partly at the suggestion of the Orchilla's agent in this county, I tried the following plan: Immediately before harrowing down the land, preparatory to planting corn, I sowed broadcast on seven acres of land three hundred and fifty pounds of Orchilla per acre; planted and cultivated the corn as usual, and, in spite of the serious drought of the summer, made a very fair crop—certainly double as much to the acre as was obtained from other lands of a like character, with similar cultivation, on which no fertilizer was used. Last fall (1883) this land, along with the balance of my corn land, was seeded to wheat, and I can say with absolute certainty that this plat gave the best yield of any on my place, though no additional fertilizer was used; while on the other portion I applied three hundred and fifty pounds of the same guano per acre when the wheat was seeded. I notice no difference in the stand or general appearance of the clover on these lands, there being a good stand with vigorous growth on all.

Last spring I used the same guano in the same way, only making the application earlier, and am satisfied, from actual experience and the testimony of others, that to obtain the very best results, especially on the

corn crop, the application should be made just as soon after Christmas as the weather will permit. No fertilizer was used on the corn crops grown by some tenants of mine, and though the land was just as good (or poor, rather) and the cultivation equally as thorough, my yield was 150 per cent. greater than theirs. The testimony of all my neighbors who made similar experiments is that they obtained like results.

In order that the farmers may have the full benefit of its use in this way, I am informed that Messrs. Travers & Snead, the very enterprising importers' agents in Richmond, have determined to supply it during the winter, to be settled for the 1st of next May, either at cash price or by notes to mature twelve months from that time. By this method we obtain three crops—viz.: corn, wheat and grass—at the cost of but a single application, and the land left in an improved condition.

I most cordially commend this method to my brother farmers of Virginia, in the confident belief that to try it will be to adopt it.

And now, having written this much in regard to Orchilla Guano, it may be proper to say that I am not an agent for it, am in no way connected with it or any other fertilizer, nor in fact with any other business except farming, in its strictest sense; and it may be best, too, for me to subscribe myself,

Very respectfully,

CHAS. S. THOMAS.

Columbia, Fluvanna county, December 17, 1884.

[This communication comes to us from a subscriber to the *Planter*, with his name appended. We do not, therefore, feel at liberty to reject it for the reason that it speaks so highly of a special fertilizer. The question of fertilizers is an important one to farmers, and each one is entitled to his own opinion; and it would be desirable to us that farmers would more freely communicate to the *Planter* their experiences with the leading commercial fertilizers now in use. In doing this, the time and method of application, quantity used to the acre, kind of soil and its preparation, yield of the crop, and other details should be stated. There are many valuable fertilizers on the market, and the columns of the *Planter* are not open to one more than another. Experiments and results in their use are invited, for the information of farmers and in justice to dealers in fertilizers and fertilizing materials.—ED. S. P.]

PLASTER.

BY SIR J. B. LAWES, F. R. S.

The influence of plaster upon clover and other leguminous crops has been explained in a variety of ways, none of which are quite satisfactory. Quite a new explanation has been brought forward by a French chemist. M. Pichard has been investigating the action of various compounds upon the nitrification of the organic matters in the soil. He

tried the sulphates of potash, soda, magnesia, also chalk and gypsum, and found that gypsum nitrified the organic matter to a far greater extent than any of the other substances; gypsum being 100, the other substances would range from 45 to 12½. Another French chemist, M. Joullie, has been investigating the loss of ammonia which takes place during the fermentation of barn-yard manure. He says there may be a loss of 20 per cent. of the ammonia, this loss being due to the decomposition of the ammonia contained in the drainage water, and this loss is largely increased by the addition of plaster. If this be true, the beneficial effect of plaster, when used in stables, must be due to the destruction, and not the fixation, of ammonia. M. Pichard considers that the beneficial influence of gypsum upon Lucerne is due to the nitrification of the soil; but there is a difficulty attending this explanation which is not easily got over. The cereal grain crops are especially benefited by the application of nitrates, but plaster is rarely found to be a good manure for these crops. M. Pichard's experiments were carried on upon a very poor soil, the organic matter of which would not nitrify without the addition of some ferment. We have found it very difficult to nitrify the organic matter in our subsoils at Rothamsted; if, however, the gypsum, when carried down by rain-water, would set up a nitrifying action in the subsoil, such a fact would be of considerable value in accounting for the source of the nitrogen in these plants. In the papers which we read at Montreal, both last year and this year, we have brought forward a good deal of evidence which bears upon this very complicated subject. With plants which take their food not very far from the surface of the soil, we can, with great care and attention, determine by analysis of the soil the losses which have taken place by the removal of crops. When, however, the roots of plants extend several feet below the surface, as is the case with some of the leguminous plants, and the influence of these roots extends some considerable distance below their extremities, all our efforts to measure the loss which takes place in a soil has hitherto proved ineffectual. Greater exhaustion of the soil by the continual removal of these crops, and more accurate processes for the analysis of soils, may in the course of time find a solution; in the mean time it is satisfactory to know that upon all soils upon which plaster was applied increased the growth, and the cultivator provided for his cereal crop a supply of nitrogen much more cheaply than by any other means, and even when plaster fails he may have recourse to kanit salt with some considerable prospect of success.

AGRICULTURAL PAPERS.

Editor Southern Planter,—Having to make you a remittance, and being an humble friend to the *Planter* and the agricultural interests of our dear old State, the reproduction of an idea expressed to an intelligent farmer the other day, who neither takes the *Planter* nor any other agricultural paper, that if I were sent to the Legislature I would immediately advocate the passage of a law requiring every farmer in Virginia who could read and write to take at least one good agricultural paper, he took the ground which all the opponents take, that book farming is a very dangerous thing, and in the warmth of my trying to defend agricultural literature, the language was used. Now, Mr. Editor, don't you think it would be a good law? What is the object of any or all good laws? Are they not to protect and promote the interests of all the people? Was there ever an agricultural paper of known ability published in any country that did no good? Is not that good just in proportion to the circulation or to the extent to which it is read?

But let us reason a little about the matter. What would a farmer think about the qualifications of a physician to practise the healing art, if he knew he had never attended a school where the science of medicine is taught, or if having graduated, and legally entitled to M. D., he practised and did not keep up with the profession by reading and study?

What would he think of the lawyer practising his learned profession without having any law books, and having none at his command to read and perfect his knowledge? The farmer would be slow to be either the patient or client of such pretenders. And yet perhaps he will be the first to say away with papers and books to the farmer, they will do harm. "*It won't do to farm by books.*"

Of course it won't do for one to lay aside good common sense. The doctors, lawyers, and other professions and callings in life, are as much bound to this rule as the *farmer*. To doctor by books, to law by books, and to farm by books, is not meant to violate known sensible rules, without thought and investigation. What is a book? Just the compilation or collection of one or many men's ideas upon given subjects, with a view to come at or bring out truth. Thus thought, inquiry and experiment with comparison is had.

In any profession or trade, to say or do a thing and not be able to tell why it is said or done, is weakening to that pursuit, just in proportion as it is uncertain; for instance, a farmer says I plant my potatoes

in the dark of the moon, another one says I plant mine regardless of the moon. Now a majority of farmers, in some sections at least, believe that the crop of potatoes is increased by observing the moon phases, and to the extent to which others dispute this truth, is this particular interest injured, and the entire community loses to the extent of the diminished production.

The farmer who plants his potatoes and other crops without reference to this fact, in a lifetime might lose thousands of dollars, when if he had a good agricultural paper on this subject he would be induced to experiment, and thus to save perhaps much *money*. So with every other farming interest. I remember a dozen or more years ago to have gone around getting subscribers to an agricultural paper; one good farmer hesitated to take it, but did so. He told me years afterwards that this paper saved him at least one hundred dollars in one year.

If this be true, wasn't it right for this farmer to take such a paper? If one farmer is benefitted by reading a good paper, will not others be, and does this not establish a rule, and a *good one*: and then should not a good rule be enforced by law?

Mr. Editor, I think this is almost if not quite a self-evident proposition. I believe great and increasing good would flow from such a law, presently felt, and with multiplied good to the future interest of the State. It would be an indirect law for taxes.

The farmer that made the one hundred dollars one year by reading an agricultural paper did not have his taxes increased, but he was much more able to pay them. Upon another principle the law should be made which is this: Every citizen of this Commonwealth belongs to her—their interests are inseparable. How was it in the late war? The State not only took possession of the property of her subjects to support the armies, but commanded the bodies of all classes of citizens to protect the interest of the State. There is inherent right then to so govern the masses that the rights and interests of all will be promoted. All of us are interested in the growth and prosperity of our dear old Mother, and to that end we should work, and endeavor to stimulate to increased action and beneficial effect every wholesome principle.

I verily believe that did all the farmers this year read the *Planter*, who have not taken it before, that thousands of dollars would be at once saved to themselves and the State, and for the future incalculable benefit be derived.

Farmers, let us all open our eyes to this great and pleasant source of improvement. We owe it to Virginia's present and future interest. We owe it to ourselves and our children.

Let everyone take the *Southern Planter*. It commences its forty-sixth year of publication, and is ably edited. Send \$1.25, and I doubt not you will reap many dollars in benefit. Often one article is worth more than the year's subscription. Friendly yours, A. J. A.

Bedford county, Va.

[Our correspondent will accept our thanks for his kind words of the *Planter*, but we cannot agree with him that it would be wise, or within the provisions of constitutional law, to require "every farmer who can read and write to take at least one agricultural paper." It would be an encroachment on the personal rights of a citizen as much as to require him to call in a physician to attend him when he believed himself competent to treat his own case. We earnestly desire that farmers should be educated to a taste for agricultural reading for their own personal benefit, but this taste must come by regular methods of education, and not by rigid enactments of law. As pertinent to the subject, we append the following, taken from an exchange :

SCIENCE ON THE FARM.

We are no longer scared at the word science, in agriculture. We now hear without sneer even the term scientific farmer. Why not? Science is simply accurate knowledge, and the man who has arrived at accurate knowledge in any of the professions, in any of the processes of the farm, in the breeding and care of stock, is as truly scientific as are those in any walk of life.

He who sneers at what has made up the agriculture of to-day, may look back to even a quarter of a century ago and ask himself if he wishes to be set back there in his implements, varieties of grain and seeds, and in his live stock. The inventions, new processes, and the data relating to the breeding and feeding of live stock, so far as they may have been proven correct, is science. The dissemination of correct intelligence among the masses has been solely through books and the periodical press, journals specially devoted to the interests in question, and the only men behind the times to-day are those who do not read what is new, or only snatches through the occasional borrowing of their neighbors' newspaper or volumes.

Science is simply to know. The men who *do not know* are large in comparison with those who do. The one sneers at book farming; does not take a paper devoted to his industry; or, if he does, it is of that class who advertise to give away ten times the subscription price paid. It must be a low class of intelligence that is thus caught. Yet these journals flourish upon the ignorance and cupidity of a class shown to be large from the results of the schemes. Let us look at these in the results obtained by their labor. They are among the worst farmers in the community, and the poorest in pocket. Why? The presents gotten with their paper were all the real value obtained. The journalistic matter is trash, hashed up from authorities not competent, but visionary, and therefore corresponding to the trash called presents, received with the so-called cheap journals. This class is always crying out against science and "book farmer." They are, however, fast dying out.

THE OLDEST CITY IN THE WORLD.

Damascus is the oldest city in the world. Tyre and Sidon have crumbled; Baalbec is a ruin; Palmyra is buried in a desert; Nineveh and Babylon have disappeared from the Tigris and the Euphrates. Damascus remains what it was before the days of Abraham—a center of trade and travel, an isle of verdure in the desert, “a presidential capital” with martial and sacred associations extending through thirty centuries. It was near Damascus that Saul of Tarsus saw the light above the brightness of the sun; the street, which is called Strait, in which it was said he prayed, still runs through the city. The caravan comes and goes as it did thousands of years ago; there is still the sheik, the ass, and the water-wheel; the merchants of the Euphrates and the Mediterranean still occupy the streets “with the multitude of their wares.” The city which Mahommed surveyed from a neighboring height, and was afraid to enter, “because it was given to have but one paradise, and for his part he was resolved not to have it in this world,” is to-day what Julian called the “Eye of the East,” as it was, in the time of Isaiah, “the head of Syria.”

From Damascus came the damson, our blue plum, and the delicious apricot of Portugal, called damasco; damask, our beautiful fabric of cotton and silk, with vines and flowers raised upon a smooth, bright ground; the damask rose introduced into England in the time of Henry VIII.; the Damascus blade, so famous the world over for its keen edge and wonderful elasticity, the secret of whose manufacture was lost when Tamerlane carried the artist into Persia. It is still a city of flowers and bright waters; the streams of Lebanon still murmur and sparkle in the wilderness of the Syrian gardens.—*Ex.*

SALT FOR LIVE STOCK.

Salt is a restorative, anthelmintic, antiseptic, antitympanitic and tonic, and therefore should be always in reach of every herbivorous animal. It is a natural and physiological necessity to them. One animal may require little, the next one a great deal; but without it perfect health cannot be maintained in horses and cattle. Its importance can be seen from the following physiological facts in connection with it:—The serum of the blood containing four to six parts per thousand. It exists in all the secretions, and is the chief source of the muriatic acid secreted by the stomach. It largely increases the secretions from the gastric and salivary glands; it promotes the digestion of vegetable food, and renders it more fit for absorption. Hence the greed for salt in all herbivorous animals, and the utility of those salt licks to which buffalo, deer and other wild animals resort. In Holland, criminals in ancient times were condemned to die by eating unsalted bread as the severest punishment that could be inflicted. The effects were terrible. These wretched persons are said to have died a dreadful death, literally devoured by worms engendered within their own bodies. In scrofula

affecting the glands, skin and bones, salt has been used internally. It is essential to digestion, a popular and reliable remedy for worms, and food without salt engenders them; and it also possesses the property of preventing more or less alcoholic intoxication. This is well known by the use of salt meats before and after the use of alcohol. Army animals should be provided with salt boxes attached to their mangers, so that they could fully supply their instinctive demand. The present insane method of distribution, periodically, mixed with food, forces one animal to eat more than his system requires, whilst others do not get sufficient, and have to eat the best substitute within reach, viz.: dirt, filth, clay, wood, lime and mud, from stable walls and floors.—*Coleman's Rural World*.

TREATMENT OF FARM STOCK.

Editor Southern Planter,—The Bible says that the righteous man regards the life of his beasts. If this were taken literally, the inference would be that there are but few righteous men in the country in this region. In travelling about the neighborhood I see but little provision made for any stock save horses, and many of these are in stables admitting free circulation of cold air. In many of these stables, so-called, horses are shivering all the day, and worse at night. With cattle the suffering is greater. Open pens, and in all weather without any protection, and very often in deep mud, the poor brutes are compelled to take the torture of Winter's cold.

With hogs the exposure is oftener worse, and the mud and rain much greater. The poor animals are compelled to walk about to avoid being frozen to death, and though often fed with abundance of corn and filthy water, there can be no increase of flesh. Hogs will cost as much as a horse—twenty-five to thirty-five cents for each day's feeding—if given them every six hours, and then there will be no addition to their flesh. The cost of such meat will be far in excess of the market price. These daily specimens of cruelty to the dumb brutes is a crying shame, and there ought to be an officer in each county specially delegated to inspect the barns and pens, and if not suited to protect the stock during cold weather, the owners should be fined so much per head. This officer should be appointed by the county judge, and his office only vacated from neglect of duty. A vast improvement would soon be visible in every neighborhood, and people would soon feel the difference in the money received for taking care of their stock instead of paying out for the want of this care. If stock owners had to pay daily for the feed of stock, they would soon commence to calculate the difference between taking good care and taking no care of their stock.

The poet says, "Man's inhumanity to man makes countless millions mourn," and if the *mourning* of millions of all kinds of live stock were taken into consideration by an All Just Being, there would be a heavy reckoning against Christian stock owners.

It is a disgrace to the age to see so little regard for the sufferings of stock, which are evidently designed by the Almighty for promoting the happiness of mankind, and yet the want of attention more than any designed neglect on the part of owners of live stock, produces so much silent misery. I could not overlook the wants of my stock when cold weather sets in, and frequently urge upon my neighbors better attention to their stock, but it is the old song over again—

"Old Virginia never tire," in her old ways.

C. M. CULLEN.

THE FARMER.

That farming is as sure, stable, honorable and remunerative a business as one can enter upon has been asserted and proved over and over again. It is true that other kinds of business—trade, commerce, and some kinds of manufacturing—that speculations of various kinds—banking and joint-stock companies—have, especially of late years, attracted much attention, and have been popular with dashing and ambitious young men; still, in the experience of a few past years, the statistics of business disasters and failures, the moral wreck of character, and the crash and ruin of men who were reputed rich, have proven that farming is an industry less fluctuating, less depressed by hard times, less subject to failures—a pursuit in which temptation to dishonesty has had less influence and in which men pursued the even tenor of their way with less anxiety and with less exposure to financial ruin and wreck of moral character than any other kind of business. That colossal fortunes have been, here and there, now and then, built up by speculation, sharp practices, gambling in stocks, spoilation of labor, and by indirect and direct robbery, we cannot deny; but these fortunes, however large and glittering, do not stand up to the public gaze as monuments of public honor, of patient industry, of pains-taking, honest labor; but they tower rather as beacons, warning men to beware of the hidden rocks and treacherous quicksands on which so many of life's voyagers have been wrecked. These fortunes have no solid foundations to rest upon, and when the floods come and the winds blow they fall like the house built upon the sand. Farming is a business that rests upon a sure foundation. It demands honest work. It is not built up by the spoilation of others. Its gains, though they may be small, are legitimate and honorably earned. There is more capital invested to-day in agricultural pursuits than in all other industries combined. It pays more for the support of Governments and receives less protection and consideration from Government than any other interest.

In looking at farming in the broad, full light of practical utility, of safe investments, of sure dividends and of the best public service, we cannot help commending it, and urging it upon the young as a pursuit upon the whole more satisfying, less hazardous, more useful, honorable and remunerative than any other business. It gives a scope to the intellect, a play to the imagination, a range to the affections, a field to the inventive powers, a work for hand and heart which no other industry supplies.

But for any adequate realization of the advantages, the remunerations and the satisfactions of farming, there must be among our patrons and farmers a high education, a better culture and a larger appreciation of and devotion to their own peculiar calling. They must see and feel its importance in its financial, social, moral and industrial bearings, and prepare themselves with as much zeal and earnestness by careful experiment, close observation and persevering study, as those who propose to enter the learned professions, the paths of science, or the study and the practice of the arts.—*Pr. Edwd. Island Agriculturist.*

[For the Southern Planter.]

PENNSYLVANIA FARMING.

Mr. Editor,—The county of Lancaster is one of the oldest in the State. It abounds in historic associations. The German element largely predominates, and with the Scotch-Irish from Chester and other parts of the great limestone formation that extends from Philadelphia to Atlanta, sent out the emigrants that were the first settlers, many of them of the Shenandoah Valley, from Harper's Ferry, or towards the southwest. I am inclined to regard it as the best farmed single county in the United States. We have had some familiarity with much of it for forty years or more, and have been surprised in noting the gradual change in much pertaining to its agriculture. At the date of our first acquaintance, tobacco was unknown as a constituent part of its crop. Indeed, since the war, or more properly within ten years past, its product has more than doubled. Its aggregate per annum cannot be much short of *seven* millions of pounds. Three-fourths of that, perhaps, is Havana. The mode of curing is so radically different from that known in Virginia and other parts of the South, that I have often felt a desire that my friend Major Ragland could spend some time among her farmers, and give your readers the benefit of his observations. Apart from air drying, the *only* mode adopted, the color is dark, and when not sufficiently so, the manufacturers of cigars, into which the entire crop enters, carry it through a process that renders it more dark. None of the time and labor resorted to in the South of finding a situation in the woods for plant-beds, and burning a quantity of wood, is

dreamed of here. The beds are prepared in the edge or by the side of where the crop is grown, covered with a thin cotton that not alone protects it from the fly, but stimulates its growth in attracting the sun's rays.

In reference to the change in the agriculture, a most prominent feature is found in the fact that something over half of the grain, corn and oats now fed to cattle, hogs and horses, is brought from the West. There has been no such thing as grazing here for years. Land is too precious and high priced. Taking the highlands, the back bone, such as the hills bordering the Susquehanna, Welsh mountain, &c., the average value, as I am told by reliable parties, is *a hundred and fifty* dollars per acre. Passing on to this city, from York, some weeks ago, a gentleman who is called the great horse and mule man not only here but in Bourbon, Fayette, Madison and other counties in Kentucky, where his name is as familiar with the horse and mule raisers as Robert J. Glendy, of Bath county, Virginia, is in the Shenandoah Valley and much of West Virginia, "Elias Kindig," I received from him much information touching agricultural matters. Crossing the Susquehanna from Wrightsville to Columbia, a mile or more east of the latter, he pointed out the farm of a gentleman who sold the last lot of cattle driven by me to this county, Jacob C. Stoner, Esq. (and who recognized us on meeting, after an interval of twenty-six years), and asked us what we supposed he got for forty acres nearest to us and the railroad? We replied, some three or four hundred, we supposed. He said the sum was *eleven* hundred. Millersville is four miles southwest of this, connected by a street-car railroad, besides a fine macadamized pike. A friend pointed out a farm of near two hundred acres midway, and said the owner refused \$500 per acre. Why is this? Here is one of the secrets, an appreciation of *stable* manure. In illustration we mention this fact: Passing *via* Columbia, York, &c., to Washington, a few weeks since, a *white* cravated gentleman got on at Columbia, and entering into conversation, I found he was a native of Rockingham county, Va., and an intelligent minister of the United Brethren denomination. He labored a few years at New Holland, six miles northeast of this. We called his attention to a nicely thatched straw-rick, and said how striking the contrast in the care with which *all* rough food was managed here and in our Shenandoah Valley? Yes, said he, when I arrived at New Holland I found much difficulty in securing straw to bed my horse, and was only successful when I promised the farmer the manure. Says he attended a sale in the vicinity, and among the personal effects was some manure. What think you a two-horse load of

manure, such as I let the farmer have, brought? We replied, three or four dollars. He said it brought *eight*. Do you regard it at all strange, Mr. Editor, with a knowledge of facts like the above, that this gentleman and myself found it supererogation presently, when we asked the gentlemanly conductor to point out to us that famous line you have read so much about, "Mason and Dixon's?" Why, Sir, as we ran down through the old county of York, towards the northern boundary of Baltimore county, the conductor said to us, "you will find a broad sign in large letters, the Pennsylvania and Maryland State Line;" and, said he, "that big post and rail fence you see running off there is exactly on the line." My dear Sir, the authorities of the Northern Central road, running out of Baltimore *via* Towson town, &c., might very well have saved the expense of that sign, inasmuch as the line is as strikingly defined as that between a Louisa and Fluvanna brown sedge field and a Norfolk *truck* farm. Your unworthy respondent has as much *State* pride as any biped raised south of that line, yet he must be pardoned for giving expression to this *revulsion* of feeling, brought about within a few hours after crossing it.

OCCASIONAL.

Lancaster, Pa., January 12th, 1885.

COLIC IN HORSES.

Horses are liable to an attack of colic at all seasons of the year, but among farm horses this complaint is most frequent during the Fall and Winter, also when first turned on grass in the Spring. It is brought on by a variety of causes, one of which is drinking cold water when the horse is heated. The New England farmer who reaches home late at night in the Winter season with his horse heated by exertion, and allows the animal to drink from a trough in the yard with the water ice-cold, then puts it into a cold barn, will be fortunate if he does not have a case of colic to deal with in a short time. It is sometimes occasioned by changing from old to new oats in the Fall of the year. It is not infrequently occasioned by eating frost-bitten clover. The first symptoms of an attack of colic is a manifestation of distress, the animal changes his position frequently, of lying down and almost immediately getting up again. In a few minutes these symptoms are likely to disappear and the horse is apparently easy; but they soon return, and with each recurrence the severity of the pain seems to increase. The sufferer frequently looks around to its flanks, paws with his fore feet and strikes at his belly with the hind ones. In a short time a cold sweat breaks out all over the body. Animals suffering from colic generally try to void urine, and a person witnessing a case for the first time would be led to suppose that it was a case of water stoppage. An excellent remedy, and one most likely to be available in the country, is

to mix a heaping teaspoonful of saleratus with a pint of milk, stir it well and pour it down the sufferer's throat from a bottle or horn. A half teaspoonful of cayenne pepper added to the saleratus and milk will render it more liable to prove effective. Probably the best remedy that a farmer can employ is one pint of raw linseed oil, to which is added one ounce of sulphuric ether and two ounces of tincture of opium. Care should be used to give oil which has not been boiled. As soon as the medicine has been administered, whether the saleratus and milk or the oil, give an injection of about two quarts of blood-warm water to which a little castile soap has been added if at hand, but if not give the water clear. If the pain is not relieved within an hour of giving the first dose of medicine, repeat the dose. It is safer to take the chill from the water for a few days after the attack.—*American Cultivator*.

U. S. COMMISSIONER OF AGRICULTURE.

Mr. Editor,—The last No. of the *Planter* heads an article "The United States Commissioner of Agriculture," and hoists the flag for Colonel Beverley as nominee to fill that office. Now, this is a move in the right direction for the old Virginia land-owners and producers—a class of people who have been made to feel that they were the step-children of the household; yes, as orphans, abandoned, as it were, by both national and State authorities. As one of them, I hold that it is stupid in any party to ignore the farmers and their interests; for in all sections they are the controlling power, and no combination can prevail against them when convinced of injustice. It is needless to mention what the Virginia farmers endured during the late war—raided upon, and for four years stripped by friends and foes, and for the last twenty years made to bear an exorbitant tax, levied upon crops which were their main ones for support.

But enough of this. We trust the storm is now over, and that Colonel Beverley, *our* nominee, will be selected as the Commissioner of Agriculture at Washington, and if so, that the wants of his brother farmers of the whole country will be respected, and aided to some extent with the means at his command. W.

FARMERS' CLUBS will find it profitable to exchange speakers. They could easily arrange a sort of lecture circuit, appointing a speaker or lecturer from each club to address certain ones in the circuit. This would promote a beneficial interchange of ideas as well as of visitors. The speakers should be considered the guests of the clubs they address, and receive their hospitalities. The expenses of such a lecture circuit would thus be very small.

JERSEY CATTLE—Their Origin and Development.

[For the Southern Planter.]

More than a thousand years ago, the hardy Northmen from Normandy and Brittany brought these cattle to the island of Jersey. This island is about eleven miles long by five wide. It contains about 26,000 acres of arable land, has a population of over two inhabitants to the acre, and supports one cow to every two acres. The annual rent per acre is from \$30 to \$60. It is strictly agricultural, containing no large cities. Its population is too dense for any but the smallest farms, and these are too small to admit of fences or pasturage (as we regard pasturage). Hence the Jersey cattle for years have been, and are now, on the channel island grassed by the tether and attended to almost exclusively by the Jersey ladies. Even the calves are taught in their babyhood to stand to the halter, both while feeding and resting. The docility of these cows may in a great measure be due to the fact that, for over a century, their ancestors have been accustomed to the gentle care and kind treatment of females, who appreciated their merit and worth.

The inhabitants of this island are contented and prosperous to a degree beyond any other people. The Government of England applies to them the principle "that they are best governed who are governed the least." Greatly blessed by Providence, they have the manhood and independence to utilize these blessings. In this race for advanced prosperity, men and women emulate each other; yet the women are healthy, pretty and refined. To their prosperity the Jersey cow has largely contributed—both by the healthful food she supplies and the large profits annually received from the sales of her increase. With so large a number of cattle in proportion to the inhabitants, the butter yield is in excess of the home consumption, and this is sold at a high price in Liverpool and London. "Self-supporting employment for ladies of the South" has been a prominent subject in several numbers of your valuable paper. The essayists have, among other employments, recommended "the dairy." With the example of Jersey island before us, with the annual rental of land at \$30 to \$60 per acre, with punctuality in its payment and universal prosperity, will it be unwise to add to "the dairy" one or more Jersey cows for healthful food and profit? With corn in the West at 12 cents per bushel, and used for fuel to-day because coal is 22 cents per bushel; with corn in many parts of Virginia at 40 cents per bushel, and wheat at 80—both less than cost of production—may not the farmer, who has a family to support and edu-

cate, well pause and look about for something more profitable? To the grower of tobacco the writer will say, Go forward! make it a specialty. To the grain-grower he would say, Stop! let not the plow-furrow break the sod. Grass is worth more than corn or wheat. If unwilling, as I know our Eastern Virginia farmers are, to engage in butter-making for market, just give a few cows to your wives and daughters, and have nothing more to do with them. If you will give them one good Jersey cow, in ten years your wife or daughter will be able to buy your farm, unless more valuable than the average. If farmers are unwilling to try this experiment (it is *so small* a business), let the wife and daughter do it. If a pedigree Jersey is too costly, buy a heifer calf or a full blood unregistered. I see from your last paper that in Oktibbeha county, Miss., there are not less than 400 registered Jerseys, and in spring and summer over 1,000 pounds of choice butter is shipped monthly to New Orleans and other markets from a single point in this county. If Jerseys and their butter can be so utilized in Mississippi, with its soil and climate, surely they can be in Eastern Virginia, with the advantages she possesses in both. It is a remarkable fact that the butter industry is pushed forward with more energy in every other southern State than in Virginia. And there is more demand for Jerseys in Florida and South Carolina than in Virginia. All of the sales made by the writer, with one or two exceptions, have been to breeders in the cotton States.

JERSEY BREEDING IS IN ITS INFANCY.

Fifteen years ago Jersey breeding in the United States was in its infancy. There were about 1,500 pure bloods in all the land. Now there are about 40,000 registered in the books of the A. J. C. C.—less than one to a million of inhabitants. Accustomed from infancy to stand by the tether, with no enclosure in which to play or exercise, we might naturally conclude that these cattle would become dwarfed, unsightly and worthless. On the contrary they are neither, and to day are without a peer as butter-makers. Within a few years past they have been carried to every kingdom and province of Europe, to Australia and South America; and, remarkable to say, after becoming acclimated seem to thrive in the cold climates of Canada and Russia alike as in those of tropical Florida and South America.

It is however a fact, that these cows have rapidly improved and developed in the United States, and will continue to improve much beyond their present status, for reasons hereafter assigned. Three years ago there was no boom in Jerseys. Only a few persons (small was the

number), who had closely watched and studied their make-up, appreciated and valued them. It was published to the world that "Eurotas," No. 2451, by accurate test had made over twenty-two pounds of butter in seven days, and 778 pounds in one year. Estimating this butter at fifty cents per pound, and the product is \$389 in one year from one cow. When to this was added her annual offspring, each to command a price represented by four figures, the incredulous turned their backs, content with believing it impossible. Quickly this test was followed by others. "Bomba," No. 10,330, sustained the reputation of her grand dam by a yield of 21 pounds 11½ ounces in seven days; and Jersey Belle exceeded it in the same length of time. Other tests followed. Mary surpassed Eurotas in the seven days' yield. One only in that for one year, until the queen of all cows, Mary Ann of St. Lambert's (a Canada cow), took for the second time the highest honor, with her record of over 30 pounds in seven days, and over 800 pounds in a year. Their development was retarded and delayed by failure to weed out the *inferior cattle*. So great is the demand, and so high the price, that every breeding animal, no matter how defective, is preserved, to hand down his or her imperfections to their posterity. When these indifferent members have been killed for beef, and only the better quality preserved for breeders, the general improvement in Jerseys will be rapid. Again: For some reason they are allowed to breed too early. To become mothers or fathers at thirteen, fourteen, or even eighteen months of age, requires a draught upon the bone, muscle, and all other functions necessary for health and growth, to meet the milk demand, that the mother is not allowed the opportunity of either obtaining a strong constitution or a full and perfectly developed growth. The average weight is about 600 to 700 pounds. Mary Ann weighs over 1,000 pounds; hence she has a fund from which so heavy a draught of milk and butter can be made without discount. Again: Most of the Jersey herds, and many of the best, are owned by cultivated and wealthy gentlemen who have other pursuits. Their information comes second-hand, through agents. It reaches the public without first having been tried by the touch-stone of actual experience, aided with an eye sharpened by self-interest. A laudable rivalry has sprung up among these gentlemen in the matter of handsome stables, fattest, sleekest, and best-looking cows. To do this, expensive buildings and machinery are brought into requisition. To utilize this machinery, the food is prepared, the cows fed and actually combed, by steam power. The result is, it is imperfectly done. Moreover, the stock are over-fed, kept too fat for good and reliable breeders, and when the stables are heated by

steam they are necessarily delicate, because unaccustomed to change in the weather. They are cows (not delicate flowers) raised in a hot-house. In this connection, I may add, many stables have vaults to contain the manure, over which the animal lives. With all possible care she must inhale impure air. Add to this the soiling and ensilage plan of feeding, and she is reared certainly with not the best showing for healthful exercise or development. Yet under these disadvantages the Jersey is a hardy cow, of remarkable digestive powers, and a wonderful breeder. Again: Another cause which retards her improvement is the want of acclimation. The transition from the northern to the southern States has a direct tendency to weaken the animal as well as her offspring. No doubt many die from this cause; others are dwarfy and unthrifty for several years. This, in a measure, can and should be corrected: First, by avoiding extreme climatic changes; secondly, by making the change from Virginia or other middle States to the southern States from November to 1st of March, and from the more northern from December to 1st February; thirdly, by subjecting to these climatic changes only young cattle, and those not in milk. Lastly. In addition to the above, when the Jersey cow becomes a pasture cow, and grass being the chief food, obtained in a natural way, to which wheat-bran, corn meal, &c., &c., (not too rich) may be added, in order to supply a healthy proportion of flesh, and not fattened for beauty and show, then will her improvement be rapid and certain. During the first six months in 1884 there were sold at auction, in the United States, 456 Jersey animals, at an average of \$539.44. During the whole year 8,990 Jerseys changed hands. Estimating these—good and bad, old and young—at \$200 each, you have \$1,798,000, the result of this young and fast-growing industry. To which must be added the proceeds from butter. What other interest can make a like showing?

JOHN WASHINGTON.

Woodford, Va., January 12, 1885.

YOUNG BEEF.—The practice of keeping cattle till three or four years old before fattening is much less common now than formerly. The improved breeds of beef cattle mature early. Two-year-old steers of the Shorthorn breed are as mature and average larger than three-year-olds of native stock. More good beef can be made between one and two years old, at less cost, with Shorthorn cattle than by keeping them longer.

No ANIMAL, cow, pig, sheep, or chicken is doing its best for the owner when obliged to rough it, or to "rustle" it.

A FIGHT WITH AN EAGLE.

Lewis Williams, who lives in an isolated spot in the Preston mountains, near Stockport, Penn., having set a trap to capture a fox which was carrying away his chickens, and going out one morning to look at it found it gone. The trap had been chained to a small stake in the ground, and this had been pulled up and was missing with the trap and chain. Supposing that the fox had been caught in the trap and escaped with it, Williams hunted about in the woods for some trace of it, but could find none. As he was returning home he heard a sudden and great commotion among a flock of crows in a piece of woods a quarter of a mile or so from his house. The crows were cawing furiously, and were circling round the tree-tops in one particular spot, and occasionally darted about through the trees. Williams walked over toward the woods, and as he approached the crows increased their hubbub. When he arrived within gunshot they withdrew to a more distant part of the woods, but kept up their noise. Williams had just entered the edge of the woods when he heard the rattling of a chain, and simultaneously a very large bird strutted out from behind a tree, dragging the missing trap, chain and stake. The jaws of the trap were fastened to one leg of the bird, which was a bald eagle of the largest size. The eagle flew from the ground and was rising with difficulty toward the top of a tall, dead tree, when Williams fired at it. The charge took effect in one of the eagle's wings and it fell to the ground. Thinking to capture the eagle alive, Williams approached it, but in spite of its crippled wing and the burden of the trap in its leg, the bird flew at him and attacked him with such fury that he turned and fled from the woods. Hurrying back home, Williams, without saying anything to others, procured a stout rope and a large feed-bag. On his way back to the woods he noticed that the crows which had attracted his attention to the spot in the first place were hovering over the place where he had left the eagle, and from their peculiar cries and frantic actions he inferred that something unusual had occurred during his absence. The crows, knowing by the wonderful instinct they possess that the eagle was wounded, and hating as they do all large birds, had swooped down on the eagle and attacked it in its crippled condition. This attack had been disastrous to the crows, for when Williams again reached the spot three lay dead near the enraged eagle and several others were dragging themselves away out of its reach, uttering the sharp, guttural cry which they only utter when wounded or in trouble.

The eagle no sooner saw Williams approaching again than it rushed at him with all the force at its command, hampered and crippled as it was, and forced the fighting at once. Williams had made a noose in one end of the rope he carried, and when the eagle flew at him he waited until it was almost upon him and then quickly threw the noose over the bird's head and it slipped down around its wings. Williams drew the noose tight and fastened the other end of the rope to a tree. The eagle was now shorn of the great strength in its wings, but it pulled the rope taut in its efforts to get at its enemy. As it stood thus strain-

ing at the rope, Williams succeeded in slipping the bag down over its head. He then clasped the bird around the body. Although now blinded and pinioned and doubly crippled, the eagle was still unconquered. As Williams stood with his arms around the great body of the bird, endeavoring to secure the mouth of the bag around its legs, the eagle suddenly sprang against him, and striking him in the stomach with one free talon, with one fierce downward stroke ripped his clothing from him and tore the skin from the flesh in a long strip clear to the waist. Williams quickly released the bird, and made haste to reach his house, supposing that he was terribly injured. Two men who were threshing buckwheat for him were then informed of the presence of the eagle in the woods, and they went to the spot and succeeded in overpowering it. It was brought to Williams' and tied to a post in the barn, the trap being removed from its leg. The eagle measures at least eight feet from tip to tip of its wings, and stands nearly four feet high. These birds still nest in the wild and rocky elevations in that region, where it is barely possible for human beings to gain access. They frequently visit the sheep pastures of the farm neighborhoods and the poultry yards. In defending her chickens against one of the bold marauders one day last summer, not far from the Williams farm, Mrs. Urban was compelled to fight it for nearly an hour, during which time it tore her clothing from her, and lacerated her flesh terribly with its beak and talons. She finally killed it with a fence-rail.—*New York Times*.

AGRICULTURAL PRODUCTS.

The Commissioner of Agriculture estimates the value of the agricultural productions of the United States for 1884, at fair average prices, at about \$4,000,000,000. The bulk of this will be sold, transported and resold during the next twelve months, and will form the basis of the year's trade. The larger portion of these products will be required for domestic consumption, and the 55,000,000 people among whom they will be distributed have not lost their capacity for consuming or their ability to gratify their daily needs. The crops are being marketed at home and abroad in about the amounts usual at this season of the year. But prices are low and there is a general absence of the speculative feeling at the several exchanges which handle domestic productions. This gives to the market apparent dullness, and creates the impression that the marketing of the crops is being seriously delayed. Such, however, is not the fact. Exports are larger than at this time last year, and the tonnage of flour, grain, and provisions brought forward by the trunk lines since July is scarcely in amount one week behind the heavy movement during the same period in 1883, and considerably ahead of the trunk line east bound freights for the corresponding period in 1882.
Ex.

OPPORTUNITIES are very sensitive things. If slighted on their first visit, they seldom come again.

THE VIRGINIA POULTRY SHOW.

On the 10th of April, 1884, a number of gentlemen interested in thoroughbred poultry and pet stock met in the rooms of the Virginia State Agricultural Society, in the city of Richmond, and formed what is now known as "The Virginia State Poultry, Pigeon and Pet Stock Association." The following officers were then elected: President, Capt. M. B. Rowe, of Fredericksburg; Vice-President, M. H. Pendleton, Cuckoo; Treasurer, Geo. R. Hill, Alexandria; Secretary, Frank Lovelock, Gordonsville; Assistant-Secretary, Geo. McD. Blake, Richmond. During the last eight or nine months the Association has been at work in many ways stimulating the interests in poultry, but principally preparing for their annual show, which took place in Richmond recently—January 6th to 9th, 1885.

The exhibition was a decided success, but doubtless many of the hundreds of people who attended the Moody meetings would have visited the poultry show had it not conflicted with the great religious revival. Then, too, the somewhat obscure locality of the hall (over a carriage-shop on Fifth street) was another drawback which tended to keep away many. Still there were hundreds of beautiful birds on exhibition, excellent professional judges, and a choice gathering of interested fanciers; and as the Association paid every cent of its indebtedness, and is already at work on the show for 1886, there cannot be the least doubt but that its members are perfectly satisfied with the results of the recent exhibition. The largest exhibitors were Messrs. Rowe, of Fredericksburg; Lovelock, of Gordonsville; Hill, of Alexandria; Pendletons, of Cuckoo; Dixie Poultry Walks, of Louisa; and Geo. McD. Blake, of Richmond.

The Messrs. Rowe, of Fredericksburg, exhibited a large, varied and attractive collection, almost identical with the one with which they created such a stir at Madison-Square Garden last winter; and as a proof of its worth it is well to state that on Monday, January 12th, it was shipped to the New Orleans Exposition, costing fifteen cents a pound expressage, and this, too, when in one crate were a pair of mammoth bronze turkeys weighing over sixty pounds. In this collection nearly every variety of land and water fowl is represented, whilst many of the coops contain birds scoring so high in feather, size, form and condition that they may be almost considered perfect. The Messrs. Rowe took a majority of regular awards and special premiums, and many of their exhibits (such as their gigantic turkeys, tiny bantams and brilliant Polish) were decidedly popular features.

T. Lovelock & Co., of Gordonsville, exhibited twenty-five coops of Langshans, Houdans, Plymouth Rocks, Light Brahmas, Partridge Cochins, Black Javas, Brown Leghorns, Bronze and White Holland Turkeys, Ducks and Guinea Fowls of several varieties. Whilst they exhibited so many breeds, their specialty is Langshans, and of these they had a beautiful display.

Geo. R. Hill, of Alexandria, is the owner of the best Houdans in the State, and he came boldly to the front with many choice and valuable specimens. He also breeds Golden Polish, and is "great" on pigeons, exhibiting some twenty cages of the latter, containing all the old favorites.

The Pendletons, of Cuckoo, showed largely in Wyandottes, Light Brahmas and White Leghorns. Their specialty being Wyandottes, they were expected to do their best, and they did it.

The Dixie Poultry Walks, of Louisa, seemed to believe in ducks, although they exhibited the only Black Sumatra fowls in the hall, and the best Black Javas. Their breeding pen of Pekin Ducks was very fine, whilst their white-crested White and Cayugas attracted much attention.

Geo. McD. Blake, of Richmond, importer and breeder of black-breasted Red Games, showed as choice a collection of these truly thoroughbred birds as is ever seen at any exhibition.

Messrs. McGruder & Steel, of Richmond, had in the hall fifty cages, containing almost every known variety of pigeon, and this display seemed "to take," especially with the ladies.

Fowls came from many parts of the North, and from all over the State, making such a show as Richmond had never before seen. Eight Houdans, from the celebrated Daniel Pinkney, of New York, were reserved at \$100, although even at that price they will very probably find a buyer in Virginia. E. W. Taylor, of Baltimore, sent the best pair of Light Brahma chicks, scoring 94 and 93 respectively, and the cockerel weighing thirteen pounds. The Valley of Virginia was well represented by James E. Craig, of Augusta, in Brown Leghorns, and Alexandria sent in a \$50 breeding pen of Light Brahmas, the property of H. & J. C. Smoot.

The expert judges were Geo. O. Brown and H. T. Whitman, of Baltimore. They did their work fearlessly and faithfully, and actually gave general satisfaction.

"WHARF RAT."

A GOOD WAY to spend the winter is in getting ready for spring.

EXPERIMENTS WITH MANURES AND CROPS.

SIR J. B. LAWES' CONCLUSIONS.

As many of our readers already know, Sir J. B. Lawes, of Rothamsted, England, has been carrying on a long course of experimentation with land devoted to continuous crops of wheat. It is now forty years since these experiments began. On one plot, stable manure at the rate of fourteen tons per acre has been applied annually, this being about the quantity the farmers in the vicinity would probably approve. On the other lots chemical fertilizers of various kinds have been applied. On one lot no manure of any kind has been used for the past forty years.

The seasons have had influence on the crops on the experimental plots as elsewhere. On the unmanured plot the smallest yield was $4\frac{3}{4}$ bushels per acre, and the largest 20 bushels, the latter grown in the twentieth year in the series. The average yield for the entire period has been 14 bushels per acre. Other plots, manured with minerals only, had their yield increased but $1\frac{1}{4}$ bushels, but where 43 pounds nitrogen per acre was applied with the minerals, the crop was increased $10\frac{3}{8}$ bushels, and where 86 pounds of nitrogen was applied the increase was $18\frac{3}{4}$ bushels, or $32\frac{3}{4}$ bushels per acre in the place of 14 bushels. But the cost of the manure in this case made the crop unprofitable as compared with the crops from land manured less or not at all.

With higher prices for wheat, the result might have been different. Mr. Lawes has given a history of these experiments in a paper for the twentieth volume (second series) of the Journal of the Royal Agricultural Society, from which the *Chambers of Agriculture Journal* makes liberal extracts. In summing up the results of the experiments, the following statements are made, which must be of interest to all who use either manure or fertilizers.

SOILS.—1. A soil which in the ordinary course of agriculture would have received an application of manure before another crop was sown, has produced forty crops of wheat in succession, averaging 14 bushels per acre, solely by means of its existing fertility.

2. At the commencement of the experiment the soil contained a large amount of organic nitrogen, derived from the *débris* of pre-existing vegetation. It also contained a large amount of the mineral food of plants.

3. Every year a certain proportion of the organic nitrogen has been nitrified by organisms existing in the soil.

4. Part of the nitrates formed has been employed in the growth of the wheat crop; part has been washed out of the soil or otherwise lost.

5. The loss of nitric acid is greater in wet seasons, and the amount taken up by the wheat crop is in consequence smaller. Dry seasons should therefore be favorable for the production of large crops of wheat.

6. The stock of soil-fertility in the form of organic nitrogen has been considerably reduced during the forty years that the experiments have

been carried on; and the amount of such reduction has been ascertained by analyses of the soil made at different periods. The stock of both potash and phosphoric acid has also been largely reduced.

7. Although so much soil-fertility has been removed, the stock that remains would appear to be sufficient to grow crops of wheat for a very long period; the produce, however, must in process of time necessarily be lower than it has hitherto been.

MANURES.—8. Mineral manures alone have added very slightly to the produce grown upon the unmanured land.

9. Manures containing nitric acid alone, or some compound of nitrogen which is easily nitrified, have considerably increased the crop.

10. The soil, therefore, contained a stock of minerals which the wheat crop was unable to make use of, owing to the insufficient supply of nitrogen in some available form.

11. Manures consisting of potash, phosphoric acid, and ammonia or nitrates, appear competent to grow large crops of wheat continuously.

12. A given weight of nitrogen as nitric acid has produced more growth in the wheat crop than the same weight of nitrogen in salts of ammonia.

WHAT AN OLD FARMER SAYS.

This is the advice of an old man who has tilled the soil for forty years:

I am an old man, upwards of three score years, during two scores of which I have been a tiller of the soil. I cannot say that I am now, but I have been rich, and have all I need; do not owe a dollar, have given my children a good education, and when I am called away will leave them enough to keep the wolf from the door. My experience has taught me that:

1. One acre of land, well prepared and well cultivated, produced more than two which received only the same amount of labor used on one.

2. One cow, horse, mule, sheep or hog, well fed, is more profitable than two kept on the same amount necessary to keep one well.

3. One acre of clover or grass is worth more than two of cotton where no grass or clover is raised.

4. No farmer who buys oats, corn or wheat, fodder and hay, as a rule, for ten years, can keep the sheriff away from the door in the end.

5. The farmer who never reads the papers, sneers at book-farming and improvements, always has a leaky roof, poor stock, broken-down fences, and complains of "bad seasons."

6. The farmer who is above his business, and entrusts it to another to manage, soon has no business to attend to.

7. The farmer whose habitual beverage is cold water is healthier, wealthier, and wiser than he who does not refuse to drink.

THE best winter food is shelter.

THE LIVE-STOCK DEPARTMENT OF THE NEW ORLEANS EXPOSITION.

To the Breeders of Live Stock: In order that I might address this letter intelligently concerning the arrangements for the exhibition of live stock at the New Orleans Exposition, I visited the grounds of the Exposition at that city last week. The Government Building, Main Building, Horticultural Hall and Art Hall are complete in structure, and the work in the inside preparing for exhibits is being pushed as rapidly as possible. These buildings mentioned are very large, and all the space therein has been applied for, thus insuring a grand and interesting exhibition in every department. Other large buildings are in course of erection for exhibits.

The department of Agriculture, which comprises all the exhibits of machinery used for agricultural purposes and the live-stock exhibitions, is under the management of Hon. Geo. Y. Johnson, superintendent, Lawrence, Kan. The advanced condition of the preparations in his department shows him to be a man of great executive ability, and, during the hurry and excitement always attending the opening of such exhibitions, he is ever ready in the most courteous manner to give information. In all these qualifications as chief of a department he is ably assisted by Col. Edward Haren, of Kansas City, Mo. No efforts will be spared by these gentlemen to assist exhibitors in any way and make them feel at home as soon as they reach the grounds—a kindness always appreciated and seldom forgotten.

The barns for the exhibition of live stock are located about three hundred yards from the Main Building and a like distance from the Government Building. Between the latter and the barns a fine track is being prepared for exhibiting stock. The barns are six in number, handsomely built and painted, and located in blocks of two in width and three in length. Each is 400 feet long by 60 feet wide. A row of well built stalls and pens is on each side, and a walk-way of 36 feet wide through the center. They are well lighted by windows during the day, and, as the Exposition will be open until 10 o'clock each evening, there will be placed along the center of each barn eighteen electric lights. A portion of one of the barns is to be used for feed storage, in which corn, oats, chop feed and hay will be sold at cost prices. All grain and hay will be taken from the northern States. I noticed a lot of very fine timothy hay in store when I was there. Good water will be plentiful at convenient places in all the barns. Sawdust and shavings will be used for bedding, which is furnished free.

The barns will be kept as a sanitary measure, as well as for the enjoyment of visitors. So far as I can form an opinion I see no cause for fear of disease. The temperature when I was there was that of May in the western States, and I am informed that no unpleasant heat for northern man or beast is felt before the month of May. The Exposition grounds are close to the Mississippi River, and live stock shipped by boat will be landed within a quarter of a mile of the barns. Stock shipped by rail will be unloaded close to the barns. Every convenience

which will add to the comfort of stock and the accomodation of exhibitors has been carefully considered and adopted. Exhibitors will have the privilege of selling stock at private sale, to be delivered at the close of the exhibition, and Mr. Johnson, superintendent of agriculture, directed me to inform breeders of live stock that those who might wish to take stock there to be sold at public sale will be furnished stalls and pens; the sales advertised and conducted under the manager of the department, at a charge only to cover expenses. All desiring to make such sales should notify Mr. Johnson as soon as possible.

Throughout the southern States there is now more than ever before a desire to introduce the improved breeds of live stock. In cattle the demand is stronger for the dairy breeds than for beef breeds. The breeders of dairy cattle have never had such an opportunity of letting the people of the southeru States see their stock, or such available means of extending their sales in that portion of the country.

The exhibition of horses will open December 20, 1884, and close January 25, 1885. That of cattle, sheep and swine opens January 31 and closes March 1, 1885, and there are large cash prizes in all classes.

I will furnish live stock premium lists from this office to all who may apply; or the same may be had by addressing George Y. Johnson, Department of Agriculture, Exposition, New Orleans, La.

SAM'L DYSART,
Supt. Division E, Cattle.

Franklin Grove, Ill., Dec. 15, 1884.

FARMERS AND SHEEP-RAISING.

There are few methods by which the small farmer can more easily increase the profit derived from the farm than by keeping sheep. I do not mean that the farmer should dispose of his excellent and profitable brood mare and replace her with sheep. I do not mean that the dairy should be disposed of and the farm devoted to sheep husbandry. I do not even suggest that the fields of grain, corn and potatoes should be converted into a sheep pasture. I do not mean that even sheep-growing should be considered the most important of all the industries to which a farm may be devoted. Notwithstanding, a small flock of sheep will, if properly managed, be found a most useful adjunct to the other industries of the farm, and on the whole a very profitable investment. Woolen blankets and many different articles of underwear are necessary in families residing in the northern States. No method of procuring these necessary articles of woolen goods can be so satisfactory or economical to the farmer's family as to keep sheep and produce the wool on the farm. There is no question but that this method is the cheapest, besides being more apt to furnish a satisfactory quality with less risk of the always undesirable shoddy. The farmer may keep sheep producing wool of a medium degree of fineness, which is apt to give the housewife much better satisfaction than the very fine wool or the coarser staples. It will be found more economical to keep sheep producing wool best adapted to home consumption, if it is not desired to

produce wool for market. If wool is produced for market and not home consumption, of course the requirements of the market must be observed; and again, the farmer keeping a flock of sheep can in the fall, when the weather is cool, supply his family with excellent fresh meat. The necessary weeding out of the old or unprofitable ewes from the flock will be generally found to answer this purpose, and such sheep at this season of the year will be found quite fat enough without extra feeding. Good mutton (and there are very few people who really dislike good Southdown and Cotswold mutton) is fully as cheap meat as the farmer can procure.

One word in regard to the source of profit to be realized from the flock of sheep. Of course wool may be sold, and so the old and unprofitable ewes may be disposed of to the butcher and always at good prices. The most important source of profit consists in the sale of spring lambs. The earlier and larger these lambs are, of course, the better prices can be realized. It is always safe to expect \$4 to \$6 per head for lambs, according to their quality and the market where they are sold. There is one other item of profit to the farmer due to the keeping of sheep which all intelligent farmers will appreciate. I refer to the economy of pasturing and wintering sheep. Sheep may be kept on rocky and sterile pastures. They may be kept where cows would starve, and hence a pasture should not be overstocked with both cows and sheep. Sheep are very useful in eradicating weeds and subduing briars, and thus are a more excellent aid to clean culture. They may be well wintered on bean and pea straw, or other fodder that is not well relished by either cows or horses. It should be remembered that, although sheep are a very convenient subject for economical measures, yet at the same time they respond quickly to generous treatment. Warm shelter and generous feeding will pay with sheep as with other farm stock. In the meantime, farmers, pay a little more attention to the small flock of sheep.—*F. K. Moreland in Chicago Breeder's Gazette.*

LAWS OF CAPITAL AND TRADE.

The business depression of the past few months has been variously explained. We have heard much of over-production and under consumption; which means simply that the supply has exceeded the demand. But this hardly explains the important fact. Competition in trade tends to lessen price; and when the cost of producing any article exceeds the price it will bring in the market, the capital invested in the production of that article will be dormant, or seek other channels. It is true that capital invested in large manufacturing companies cannot be easily diverted, and hence suspension of operations is the only alternative, with all the evils resulting to workingmen from cessation of wages, and to manufacturers with a large stock on hand, from which they cannot realize, and the loss of interest on capital invested from which they get no returns.

Various are the expedients by which capitalists seek to relieve them-

selves. By improved machinery they lessen the cost of production, and by reduction of wages; by tariff legislation, they seek to destroy foreign competition; by the aid of monied institutions, they tide over present difficulties. Workingmen resort to strikes and other forcible expedients to secure what they conceive to be a just remuneration for their labor. But for both, the inevitable law of action and re-action, of supply and demand, sooner or later defeats their efforts, and brings them face to face with the natural law.

Every article bought and sold, labor included, has a certain money or market value. And much has been said of the influence of the currency. When we speak of money as "tight" or "easy," we allude to its market value. It can be borrowed, on given securities, at such a rate. But as a medium of exchange, it has a purchasing value, and whether abundant or scarce, it sustains a certain relation to all commodities. As a rule, high prices indicate abundance, low prices a scarcity. It is asserted that it makes little difference whether wheat is \$1 or \$2 a bushel; its purchasing power will be found to be equal. This possibly might be true were there no limit to the amount produced, and no difference in the cost of production.

The great question with respect to agricultural products is that of labor. The capital required is small compared to that demanded in some other departments. It is true, the practice of dealing in "grain futures," of "forestalling" and "cornering," may have some influence; but, as a rule, the crop has passed from the hands of the farmer before these transactions take place. Railroads and means of transportation have their influence; and all who handle agricultural produce must have their share of its value. Facilities for reaching market are now so increased, that local causes do not produce as great effects now as formerly. A drought or a frost, producing a short crop, may make local scarcity; but the demand produced soon brings a supply.

The great aim of all is to get as much as possible for as little as possible; but has any law ever been discovered which will bring money into a section where nothing is produced. As a rule, the natural law is that business creates business; money will be abundant where its equivalent is found. The larger the crop, the more value to the farmer; the less the cost, relative to the amount produced, the greater will be his profit.

A community which has few business enterprises must necessarily be more productive than one which sustains only five. It should be the aim of every one to make all the local business he can, as thus money is kept in circulation, and more share its benefit. A natural law of trade is "to live and let live;" and another obvious law is that if those around you prosper, you will be likely to share in the common prosperity.—*The Charlotte Va., Gazette.*

IT WON'T PAY to grind oats for calves as they eat the whole oats well. The waste is not equal to the cost of grinding. A variety of grain builds up the whole body.

AGRICULTURAL EDUCATION.

[Extract from the address of the Hon. T. Robie, Master of the Main State Grange.—
Ed. S. P.]

The word "enlightened agriculture" has often been used, and it is closely connected with progressive civilization. The laborer who walks between the handles of the plow, is naturally far above the animal, whose strength turns over the furrow of the sterile soil, and when you look over the vast field of nature, and contemplate the capacity of the mind, you find resources for improvement and advancement which the physical strength of the animal plodding along in the same track; but a man by the use of mental powers, can be raised to a position which the Author of his creation recognizes as little lower than the angels. In the vast pursuit of agriculture, there is a hidden field of knowledge which surpasses every other interest. "Every plant that grows on your farm, every animal in your stock yard, every bird and insect that hovers in the air, every implement of husbandry, every road, fence, farm building, every running stream, swamp, forest, change of temperature, rain storm, drouth, every alluvial deposit left by the swollen stream, every upheaved rock, everything that the farmer's eye rests upon, or his ear hears, or which gratifies or offends his sense of smell, all represent a science which is very close to his work, or what is for his interest to know."

Nature with which the farmer deals, is an encyclopedia of hidden knowledge. It requires the cultivated powers of the mind, aided by science, to develop established truths and principles which show the relation of cause and effect, so essential to an enlightened agriculture. The pursuit of farming calls for as much education as any of the learned professions, though in a different direction. It may be impossible for the individual farmer to possess all the necessary knowledge in chemistry, natural philosophy, botany and the many sciences which make agriculture one of the most comprehensive of arts, but the more varied his knowledge, the more advanced will be the exercise of his faculties. Knowledge is power, and nowhere so effectual and remunerative as in the domain of agriculture. A practical farmer may raise wheat, corn and cattle, and harvest the productions of the farm, and market them, without much education; but we were created for a higher existence than that of mere drudgery. The farmers of this country represent 8,000,000 and probably not far from 25,000,000 of our people are dependent upon agriculture for subsistence. The dignity of agriculture can well rest upon numerical strength, but enlightenment and not ignorance, gives it a full supremacy. The farmer has gone into the American forest and upon prairies, and with the axe and plow has developed 4,000,000 farms, and furnishes the markets of the world with the productions of 536,000,000 of cultivated acres, setting at work the sails of commerce and the spindles of the manufacturer. This achievement of labor is the prime source of our natural prosperity, and the men and women who have constituted the bone and sinew of our nation, should be leaders and not followers; and in order to take this

position, an equal education with other professions is essential. Numerical strength gives farmers the power to choose the men who legislate, and the judge who interprets the law, and the executive which executes the law. The power to do this should be an intelligent power, measured by a knowledge of the principles of civil government, the rights and duties of citizenship, and that culture and mental discipline which have made the learned professions more powerful. Is it necessary for the farmer to study Latin and Greek? By no means, unless he desires mental discipline which these studies give; but this discipline will benefit him as much as any other class. The farmers should advocate and sustain an educational policy which gives to all its citizens a liberal and comprehensive education. It is found in the progressive system of our own State. Let us sustain a popular elementary education of a high order, free high schools, and the claims of the State College of Agriculture and Mechanic Arts. These advantages will develop an education which will give the agriculturist of the State facilities to compete successfully with other pursuits in the race of life.

WHITEWASH FOR OUTBUILDINGS.

The following recipe is timely and reliable: "As we have often recommended good white-wash, well applied to fences, sheds, rough siding, and the walls and ceiling of buildings, cellars, etc., has a highly sanitary influence, as being very preservative in its effects. To be durable whitewash should be prepared in the following manner: Take the very best stone lime, and slake it in a close tub, covered with a cloth to preserve the steam. Salt—as much as can be dissolved in the water used for slaking and reducing the lime—should be applied, and the whole mass carefully strained and thickened with a small quantity of sand, the purer and finer the better. A few pounds of wheat flour mixed as paste may be added, and will give greater durability to the mass, especially when applied to the exterior surface of buildings. With pure lime, properly slaked and mixed with twice its weight of fine sand, and sifted wood ashes, in equal proportions, almost any color may be made by the addition of pigments. Granite, slate, freestone and other shades may be imitated, and without any detriment to the durability of the wash. This covering is very often applied, and with good effects, to underpinning, stone fences, roofs and the walls of barns and other outbuildings. Probably the pure whitewash is more healthy than the colored, as its alkaliescent properties are superior, and when used in cellars, kitchens and sleeping apartments produces salutary results. No person who regards the health of his family should fail to have applied a coat of such white-wash every spring. Country places, especially farm outhouses, fences, etc., are greatly improved in appearance by an annual coat and it will add to their permanency much more than many would imagine. As we all know, it is cheap and easily applied, so that neither expense nor labor can be pleaded against it."

—*Baltimorean.*

MORE EGGS IN WINTER.

This is the very time when eggs are worth the most, when hens want to lay as much or more than they do at any other time, and when they

are not allowed to do so by most poultry keepers. Folks think there is a great mystery about making hens lay in winter. There is none; anyone can do it; that is, the hens will lay if you will let them. They bear a good deal of cold in the sunshine, and even freeze their combs and toes, and yet will not stop laying altogether if they can sleep warm. Now do not begin to plan setting up a stove in the hen house, or introducing steam pipes. Artificial heat is not poisonous perhaps, but very nearly so to chickens. They are warm themselves, and need only to be crowded on their roosts, with the roosts all on the level. The ceiling of the roosting room should be only a few feet above the fowls' heads, and provided with ventilation from the floor if possible. Give them very close quarters, with no drafts of cold air, and clean out under the roosts every morning, not excepting Sundays. The combs will then redden up, and eggs will be plenty on less feed than usual. It must not be corn, however, or only a small percentage of it, for this will make them too fat to lay well if they sleep warm.—COL. WELD, in *American Agriculturist*.

“OUTLOOK FOR PRODUCERS.”

The *Journal of Agriculture* thus describes the prospects of the farmer: “The financial troubles of the last Spring have caused very serious complications among the producing classes, and no inconsiderable losses have been sustained by the farmers of the Western States. With good crops and a prosperous year, unprecedented prosperity should have been the record of this class of world feeders. In its place we find low prices ruling the market for all farm products.

The wheat and other small grain crops, which were confidently looked to for handsome returns, barely pay the expenses of production, yet the majority of farmers, fearing still worse fate in store, are sacrificing their crops to secure the means of liquidating liabilities.

It is well for the farmer to investigate the causes which have brought about the present unsatisfying state of affairs, and when they are found, to provide a remedy to prevent a recurrence of such troubles. A careful search will reveal the primary cause of unsettled values in farm products to have been grain gambling and speculation among the handlers of these products.

The desire to amass wealth, through speculative means, has assumed such vast proportions in the commercial world that the rapacity of dealers in grain is only bounded by their ability to *bull* or *bear* the market. No longer are legitimate sales based upon the actual supply or demands, but are ruled, manipulated and controlled by large dealers in grain through the modern, and to the farmer most ruinous, gambling hell known.

Corn was quoted recently at one dollar per bushel in the Chicago market, whilst most farmers in the West cannot sell at shipping point for as much as forty-five cents.

The producers of grain should unitedly labor through the ballot to

elected as State and national law-makers those who will suppress by law this hurtful feature of commercial exchange. We speak advisedly when the term hurtful is used. All classes of business men are injured either directly or remotely by these speculators in the necessities of life. Financial stringency, peculations, defalcations, forgeries, bank robberies, and the long train of crimes that fill the telegraphic and news columns of the daily press, are originated, fed, nurtured and grown for their huge proportions as the fruit of this deadly and dangerous species of commercial knavery.

The outlook to the producer will never be bright, nor will the legitimate compensation due him for his labor be paid, until this crying evil is banished from the land. An incentive for prompt and decisive action more deserving of the united labor of all classes of Western men never has appeared in the history of the country. Then, to reap the fruits of honest toil, to advance the coming generation in moral standing and commercial honesty, all sincere lovers of the country should unite in devising means to stamp out this foul blot upon American civilization. Crops are good, and the supply is not so great, either of breadstuffs or forage crops, as to bring down prices below the cost of profitable production, were these supplies properly distributed in the world's markets."

SOUTH CAROLINIA SUPERPHOSPHATES.

[Extract from address of Hon. A. P. Butler, Commissioner of Agriculture, S. C.—Ed. S. P.]

Our phosphate mines are the wonder of the world. While enriching the poor lands up to a fertility equivalent to the alluvial bottoms of the Mississippi, or the delta of the Nile, these mines have poured a million dollars into the State treasury, and brought millions into the State for investment. And the area covered by these phosphate deposits is comparatively very small, and only a minimum portion of that has been developed, but it has been sufficient to place many of the larger States under obligations to South Carolina, and has furnished the civilized world with "the chief part of all the phosphate of lime used in the manufacture of commercial fertilizers." A compilation just made by the Charleston News Courier, shows that there are sixteen land companies engaged in mining rock, that have a capital of \$2,000,000, and employ 3,000 hands. In addition to these, there are six river companies, with a capital of about \$1,500,000, making \$3,500,000 invested in phosphate mining. Besides, there are the wealthy fertilizer factories, manufacturing large quantities of the rock; these are the outcome of the phosphate mining. There has been mined and shipped since the discovery of the South Carolina deposits, 1,078,000 tons of river rock, and 1,211,830 tons of land rock.

This amount, at the very moderate average of six dollars per ton, has given to the State the large amount of \$13,740,000, of which amount the entire State has been benefited by a royalty of \$1,078,170.

The cost of production per ton varies. It is estimated at \$4.50, in-

cluding the payment of royalty and other expenses.

One hundred thousand tons of crude rock are annually consumed by the fertilizer manufacturers of South Carolina.

The value of the phosphate annually mined is \$2,100,000.

The royalty paid the State in 1883 was \$130,146.42, being one dollar per ton paid as moved by the marine companies.

As stated above, the taxes levied on product of land companies, and the heavy tax on fertilizer manufacturers, are exclusive of this large amount of revenue.

THE FUTURE SUPPLY FOR THE PIEDMONT GRAZIER.

[For the Southern Planter.]

It has been frequently remarked that the relative prices paid for cattle to be grazed and fattened are inordinately high when compared with the prices the same cattle bring after having been wintered and grazed to fatness.

The great demand for *stockers* and the continued glut of the fat cattle market, is due to two causes: first, the area grazed is every year growing larger; and secondly, the supply of *stockers* is correspondingly diminished by the rapid means of transportation afforded the Western grazier, whereby he is enabled to send his cattle into the Eastern markets *fat* instead of being obliged to sell them to the Piedmont grazier to be fattened by him. Then, too, the running of refrigerator cars from Chicago to the Eastern cities has undoubtedly helped to keep down the market for our fat cattle.

So there is little hope that the prices of fat cattle will be increased. The only way out of his difficulties is for the grazier to buy at lower figures. This cannot be done while the demand for *stockers* is so great and the supply so small. Then the *supply* must be increased.

Now it appears to us that there is no more promising field for labor in raising stock cattle than the Northern Neck of Virginia.

There is throughout this section an indigenous grass, known as *Wire Grass*. It grows everywhere, covering the ground like a cloak. It puts up in corn stubble, wheat fields and, in fact, wherever the bushes and briars will give it room. Like the Blue Grass of the Piedmont was some thirty years ago, it is looked upon as one of the greatest pests which the farmer has to contend with. It stands drought remarkably and when the land is good forms a sod. It is very tenacious of life and its roots, putting out at almost every joint, penetrate the ground to a considerable depth and have even been known in their

race for life and moisture to pierce a growing Irish potato. This grass forms the principal means of support for the large, horrid, early-headed cattle with which the Northern Neck is stocked.

Clover can be raised very successfully here as well as orchard grass. These as auxiliaries to the wire grass, (which it is maintained will increase in luxuriance and nutritive powers in proportion as it is encouraged and fertilized) and will afford ample food for young cattle. Now let the farmers of the Northern Neck improve their herds by the introduction of new blood, not of the large-boned *Shorthorns* or *Holsteins* but of the lighter and more compact breeds of Devon and Ayrshire. Do not try to raise thoroughbreds—but cross upon the hardy native stock and if necessary repeat the introduction of this new blood.

The kind of cattle now raised in this section are so rough that they are not desirable. They are badly bred and never having had sufficient food are stunted, consequently no grazier who takes pride in his business likes to handle them. But if the cross-bred cattle are fed during the first two winters they will always bring a good price and be easily sold. Well bred, well grown yearlings are frequently sold in the grazing sections for prices ranging from \$25 to \$30 a head.

If the grasses both natural and artificial are cultivated and a judicious cross introduced into the herds of the Northern Neck, there is no reason why it can not produce stock cattle, and thus supply the largely increasing demand in Loudoun and Fauquier. It is not advisable that the cattle be *fattened* upon wire grass even when fed with clover and orchard grass. The stronger blue grass sods of the Piedmont can do this much better. Sell your stock by the time they are two years old. Up to this age it is not difficult to keep the animal in good growing condition.

GRAZIER.

CHEESE AND BUTTER MAKING—The factory system has worked a revolution in cheese making in this country, but it has not done so much for butter making. The bulk of cow butter is still made on farms, and there is one reason why it probably will continue to be. The skim milk is of great value for feeding pigs and for other purposes, while the whey from cheese is worth little or nothing. The dairy system of butter making will probably insure a better and more uniform product, but there is another difficulty to be taken into account, which is the loss from churning the cream from a great number of cows together.

Editorial.

AGRICULTURE AND ITS PERMANENCY.

The phrase that "farming does not pay" is becoming trite. The corollary is, that it should be abandoned, for every occupation that does not pay must be. That such a sentiment should be uttered by farmers is unjust to them and to the great and necessary pursuit of agriculture. This is an occupation which cannot die except with the world and all its inhabitants. It was ordained of God when Adam, with Eve, was expelled from the Garden of Eden, and was commanded to "till the ground from whence he was taken."

Cain, the first-born of these parents, was a "tiller of the ground," and Abel, his brother, was a "keeper of sheep." The two leading departments of agriculture—tillage, and the raising and care of domestic animals—were thus blended at the commencement of human existence, and have since continued, and must continue to the end of time. Why, then, should farmers annoy themselves with the cry that "farming does not pay"? By its divine origin it *must* and *does pay*. Many farmers who join in this cry are unconsciously getting very fair returns from the labor and intelligence they bestow. Money may not be rapidly accumulated, but they have a fair living, and, if provident, have no debts. This, probably, is a great dividend on what they have expended.

The idea that agriculture must be abandoned because it does not *pay* is a *heresy*. If a farmer fails in his occupation, he must, like men in other pursuits, blame himself and his methods, and not the business of farming. Whether farming pays depends on the farmer himself. And so in other businesses, some men fail whilst others succeed. Look at law, medicine, divinity, art, trade, commerce, and manufactures, and their pathways are strewn with those who have fallen; and yet there is a disposition among many farmers to look on these professions as nobler than their own, and which *pay* better. There never was a graver mistake. The science of agriculture is now being recognized as the co-equal of any other; and whilst the humblest and most illiterate may sow, plant, and reap, the best results are given to the most intelligent and earnest workers in its fields.

We might elaborate these views much in detail, but our present remarks are designed to be suggestive only. Farmers should think and carefully consider before they condemn their business. Supply and

demand as to all products must regulate prices in legitimate trade, uninfluenced by unjust speculations through controlling rings and monopolies; and in respect to this governing law the farmers are, for many reasons, on the safest side.

CURING TOBACCO BY OPEN FIRES AND SMOKE.

We have a letter from a subscriber in Venezuela, S. A., asking information on the Virginia plan of curing tobacco with open fires and smoke. His surprise in not finding something on the subject in the columns of the *Planter* is answered by the fact that this process of curing is no novelty in the United States, and in Virginia especially, where it has existed, with but little change, from about 1620 A. D. to the present time.

The log barns for curing dark and strong tobacco with fire and smoke, as they were constructed in colonial times, are still common. These barns are built of straight logs about eight or ten inches in diameter, and usually about twenty feet long. They are put up in the form of a square pen, and notched down at the corners so as to touch each other. About seven feet from the ground the first corner of tier-poles are put, resting on the logs on opposite sides, and four feet apart. As the body of the house is built up, at each three feet another course of tier-poles are placed vertically over those below, and so on until the body of the house reaches the desired height—generally about twenty feet. Hewn plates are then put on, and upon these the feet of the rafters rest. The rafters are so framed as to have an elevation of forty-five or fifty degrees, and they are placed over the line of the tier-poles, and are strengthened by cross-ties nailed strongly on opposite sides. These ties are also placed the same distance apart as the tier-poles of the body, and ranging vertically above them afford the means of hanging nearly as much tobacco in the roof as in the body.

The covering of the roof is now usually of shingles, or with planks placed vertically, with the joints covered by other and narrower planks.

After the house is completed, a door is cut on the south side, and a proper shutter made and hung by wooden or metallic hinges. The space between the logs should be *daubed* with clay to the height of the first line of tier-poles, and if the logs are properly notched, no daubing will be needed above. The openings between the logs will afford ventilation for *drying* out the tobacco when necessary, and bringing *in order* in damp weather when it is desirable to *strike* and place it in bulk. The tobacco, when it is cut from the field, is hung on sticks

riven from straight-grained timber, four and a half feet long and about an inch square. These sticks, when filled with from six to twelve plants each, according to size, are lifted into the barn and hung on the tier-poles, commencing in the roof and working downwards; and when the house is filled, the firing may commence at once, or be postponed a day or two, according to weather and other circumstances. The fires are always made of *green* or half-seasoned logs, cut about six or eight feet long, and of a size that a man can lift and carry into the house. These logs are laid end to end in *three* parallel rows, and three or four together, the rows being about six feet apart. Small fires are kindled under and between the logs at short distances with some dry material, and when the logs commence burning the fires are kept up by adding other logs. Care is taken that the fires are kept slow at first, generating more *smoke* than *heat*; but as the tobacco begins to dry, more heat is given until the leaf and the lower part of the main stem is well cured.

This process requires great care to prevent a conflagration. In its last stages the leaf becomes almost as dry as tinder, and a few strong sparks generated by careless handling of the fires will in many cases cause the destruction of the barn and contents.

The following is our correspondent's letter, and we hope some one of our tobacco growers will supplement our reply, which has been very hastily written :

Editor Southern Planter,—I hope you will excuse the liberty I take in addressing you. I some time ago subscribed for your valuable book, which I have recommended to be the best one on growing and curing tobacco. What I want to know is how to cure tobacco by fire. I do not mean by the flue process, but by the open fire and smoke. I have watched your book for some hint on the question, but I have not seen anything of it yet, so I write to you for the advice that will lead me in the right direction. Our crop will be ready for market about the 1st of May, so I am anxious to try the Virginia *idea* of curing. All the tobacco out here is sun-cured, and very sweet. Makes a fine chew, but the people of this country want something common, and something that will smell strong, and smoke strong. You will do me a very great favor if you will help me with your advice.

I am yours, with respect,

W. P. JONES.

Caro, Venezuela, S. A., 23d December, 1884.

WHENEVER coal is burned the ashes should be taken to the henhouse and scattered under the perches. This will prevent loss of ammonia, and in the spring, if the henhouse is free from snow, the manure will be in fine condition.

THE WORLD'S INDUSTRIAL EXPOSITION AT NEW ORLEANS.

We hear and read from all sources that the great Exposition, now in full working order, exceeds any other of a similar kind ever before held. We have talked with a prominent citizen of our city who has returned from a month's visit there, who assures us that in his opinion it exceeds the famed *Centennial* at Philadelphia in 1876.

We can well understand this; for if the material products are not greater, there is the great Mississippi river washing the shores of the exhibition grounds, with their groves of live oaks, and beds of perennial flowers, which can only be seen in a semi-tropical climate. Such a scene in mid-winter is worth many miles of travel; and then the exhibition itself, in all its varied departments, will furnish a great fund of entertainment and information.

We are not informed as to the extent of contributions from the northern part of the United States, or of Europe, but the central portion of the world will be well represented, extending across the continents from the western to the eastern shores of the Pacific. Of course the contributions will embrace all tropical and semi-tropical productions of farms, gardens and orchards, flowers and plants, art in all its phases of sculpture, painting, engraving, &c.; and to these will be added all grades of machinery and its numerous adaptations.

Many persons will be anxious to visit this great Exposition, but may be deterred by a want of knowledge of the attending expense. We have some *data* on this subject, collected from one of our great railway lines.

The *Chesapeake and Ohio Railway* offers a galaxy of routes by which tickets are on sale at excursion rates, going and returning by the same route, or going by one route and returning by another. There are *nine* of these different routes, having each its special attractions. For detailed information apply to H. C. Fuller, General Passenger Agent, Richmond, Va.; J. C. Dame, Southeastern Passenger Agent, Richmond; or to O. C. Doyle, Agent, Lynchburg; P. H. Woodward, Agent, Staunton; or to any station agent on the line of the road.

This is an opportunity of any man's life; and all who can afford the expense should go to this Exposition—certainly all who desire, or are interested in, the development of the middle belt of our continent.

BE CAREFUL how you treat the cows now. Radical changes of food produce indigestion, and general unthrift may follow.

THE VIRGINIA STATE AGRICULTURAL SOCIETY.

The first quarterly meeting for 1885 of the Executive Committee of the Society was held in the Society's Rooms in this city on the 16th of January. The attendance of members from different parts of the State was good, and Robert Beverley, Esq., the President elected at the last annual meeting, presided. Much of the business was routine work and of no public interest, so that we have embodied in this report only that which may interest our readers. The vote of thanks which was unanimously given to Gen. Wickham, the retiring President, was but a deserving compliment for his efficient administration of its affairs at the most trying period of its history.

The resolutions offered by Maj. Gaines, of Charlotte county, and promptly adopted, calling for a State Convention of farmers in this city on the 15th of April next, should arrest the attention of every farmer in the State. Some such great movement in behalf of our agricultural interest is at this time especially important. The resolutions are so terse and expressive that it is unnecessary to attempt to say more than they do. Let the farmers of the State prepare for this convention, through their local organizations and meetings, and send to it, as delegates, the best and most earnest workers for the promotion of the agriculture of the Commonwealth.

PROCEEDINGS OF THE EXECUTIVE COMMITTEE OF THE VIRGINIA AGRICULTURAL SOCIETY.

The quarterly meeting of the Executive Committee of the Virginia State Agricultural Society was held in the Secretary's office last Wednesday at 7:30 P. M. Present, Col. Robert Beverley, president; Gen. W. C. Wickham, Col. R. H. Dulaney and Col. W. C. Knight, ex-presidents; Major Burr P. Noland, of Loudoun county, vice president; Corbin M. Reynolds, of Botetourt; Capt. R. R. Carter, Charles City; Hugh C. Preston, Montgomery; John S. Ellett, R. E. Blankenship and N. V. Randolph, of Richmond city; S. W. Corbin; Julian M. Ruffin, Hanover; E. R. Cocke, Cumberland; Maj. R. V. Gaines, of Charlotte county, and Maj. W. A. Burke, of Staunton, members of the committee.

George W. Mayo was elected secretary and treasurer.

The advisory boards in the various departments were appointed.

Mr. N. V. Randolph stated that since his election and acceptance he had made business engagements which would necessitate his absence from the city during the greater part of the year, and was consequently obliged to resign from the committee. Mr. Randolph's resignation was accepted and Mr. O. L. Cottrell, of Richmond, elected to fill the vacancy.

General Wickham presented his financial statement for the year 1884, which was examined and approved, and turned over to President Beverley \$4,500 in Virginia new 3 per cent. bonds, and \$936.05 in money.

The following resolution was unanimously adopted:

Resolved, That the thanks of the Virginia State Agricultural Society are due and are hereby tendered to Gen. Williams C. Wickham for his very able and efficient management of its affairs.

Proper action was taken on various letters and communications. The offer of \$25 in money and \$15 in any of his stock, for special premiums, made by Mr. H. A. Catlin, florist, of Richmond, was accepted with thanks.

The following resolutions offered by Maj. Gaines were then adopted:

Resolved, That a convention of farmers and others identified with the industrial interest of the State be held in Richmond, April 15th, 1885; said convention to be composed of two delegates from each magisterial district in the State and each ward in the cities and towns, under the auspices of the State Agricultural Society:—

1. To effect thorough organization and to promote co-operation in all measures looking to the advancement of our agricultural and industrial interests.

2. To expand and give greater efficiency to the department of agriculture by making more liberal provisions for its support and enlarging its field of operations.

3. To consider and discuss questions affecting immigration, fertilizers, &c., and to formulate public opinion to the end that the agricultural and industrial interests of the State may be promoted.

4. That a committee of three (members of the Executive Committee) be appointed by the chair to prepare and publish an address to the people of the State on this subject, and that the President be *ex-officio* a member of the committee.

5. That the Secretary of the State Agricultural Society be instructed to obtain from the transportation companies and hotels reduced fares for the members of the convention and a suitable hall for holding its session.

Resolved, That the President designate one citizen in each county and city of the Commonwealth, who shall be commissioned to act as auxiliary to the Executive Committee in securing representation and furthering the objects of the convention, and who shall be a delegate at large to the convention.

The President appointed Major R. V. Gaines, Gen. Wickham and Col. A. S. Buford a committee to prepare and publish the address to the people of Virginia, provided for in the first resolution.

The Committee then adjourned to meet in Richmond on Tuesday, April 14, 1885.

NOW BLANKET the horse when he has to stand out in the cold after driving. If the day is very cold and the horse is much over heated use two blankets.

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 brevier type.

EDITORIAL NOTES

PLANT-BEDS FOR TOBACCO.

Now is the time for farmers who grow tobacco to consider the question of a supply of plants. A sufficiency of plants lies at the foundation of the crop. In this matter farmers, and the tobacco-growers of Virginia especially, are, as in other farming methods, disposed to adhere to old habits. Why should this be so, when by a little reading and reflection new and better paths can be followed? The old plan of burning large surfaces of the virgin soil of the forest is now, with the best planters, deemed unnecessary and expensive, in time and labor, to say nothing of the large amount of firewood consumed. It is probable that the average planter devotes in this way *ten times* as much space to secure his plants as would be necessary under a different method. The idea prevails that large surfaces must be given to plant-beds to make up the loss by flies and unfavorable conditions of weather, whilst the main fact is overlooked that acres of surface may

be unproductive from these causes. Is it not, then, a wiser plan to limit surface and labor to the actual requirements of a proposed crop, and have this surface so prepared and guarded as to be independent of both flies and weather? The covering of the beds with canvass suited to the purpose, and irrigation or proper watering will do this. In other words, adopt the cold-frame or hot-bed system, by which millions of cabbage and other garden-plants are raised. As to the efficiency of canvass for the protection of the beds from flies, Major Ragland and other leading planters have testified, and have written in detail in the *Planter* and other agricultural journals. We have seen, in a recent issue of the *Rural Messenger*, an article on the same subject from the pen of our esteemed friend, Dr. Blanton, late Agricultural Commissioner, in which he shows by figures the number of plants which may be grown on a given surface, and be fully protected from flies by the use of canvass, and at the same time nurtured into active growth.

In our present issue will be seen an article on "Pennsylvania Farming," in which, speaking of tobacco culture in Lancaster county, it is stated that the farmers never think of going into the forest to *burn* beds, but locate them on the side of the open ground on which the crop is to be grown, and manage them as a cold-frame under a cover of canvass.

We have another thought to suggest, *for experiment*, in reference to such beds. Try the *forcing principle* when you are in doubt about your other methods. Dig six inches into the ground and throw the earth thus removed around the edges; fill with stable manure; cover with wood-mold six inches deep; rake fine, sow the seed, and tramp them firmly in; have the sides protected by planks a foot in width; cover with thin canvass which has been saturated with linseed oil, and let the canvass be so arranged that it can be conveniently turned back to give water when needed. Such a bed should not be prepared before the 1st of April, as plants thus forced will be ready for the hills by the 1st of June, which is

early enough for setting in the tobacco belt of Virginia; and other States should be governed by latitude in their time of planting.

In either case of the cold or forcing frame, the bed should be in the form of a parallelogram, not more than eight feet wide, and long enough to afford the surface required. This will facilitate the use of canvass which will not sag, as it would do on a broad bed, and also make it more convenient to hand-weed, if necessary, and water and draw plants without walking on and bruising them.

SUBSCRIPTIONS.—A number of subscribers will accept thanks for their remittances on bills sent out in our December and January issues. There is a much larger number who have not responded to our bills, and to them we expect to extend thanks hereafter. Pay the printer if you expect to have a prompt and useful paper.

THE New Orleans Exposition is now in full blast. Go to it if you can.

COME to the Farmers' Convention on the 15th April. As to it, see proceedings of the Executive Committee of the State Agricultural Society, in this issue.

In our last issue there failed to appear any notice of new advertisements. Full notices were written, but by some means the MS. was mislaid. All we can do now is to give a list of them, and ask our readers to look back to our advertising columns.

1. J. H. Gregory, Seedsman, Marlboro, Mass.
2. Church & Co., Arm and Hammer brand of Soda.
3. R. L. Ragland, Tobacco Seed.
4. Hiram Silby & Co., Seeds.
5. Geo. Payne & Co., Sewing Machines.
6. T. S. Avery, German Doll-Heads, &c.
7. J. T. Gatewood, this city, Family Groceries.
8. W. H. Smith, Seeds.
9. Peter Henderson & Co., Seeds and Flowers.

10. C. B. McDonald & Co., High Grade Stock.

WOMEN'S WORK.—We have a number of essays still unpublished on the subject of "Self-Supporting Employment for Women of the South," called forth by the premium offered by Mr. J. M. Blair, of this city. In our next issue we will publish that signed *Poor Richard*, coming from South Carolina, which is among the best of the entire collection. If space allows we will publish others, as it is a subject of great interest and importance.

A GOOD CORN-SHELLER FOR MANY FARMERS.—We have accepted several of these shellers in payment of an advertisement. They are peculiarly adapted to small farmers, or to the easy shelling of mill-turns on any farm. The factory price is \$5, but we will sell to subscribers for twenty-five per cent. off, or will furnish the sheller and the *Planter* for a year at \$5. It will make no difference whether any subscriber orders or not, as we can easily dispose of the few at our command, but we prefer to encourage the introduction of cheap labor-saving implements, especially with our own readers, who can blame us if we recommend a bad thing.

MAGAZINES.

The *Harper Publications*, and those of the *Century Publishing Co.*, for February are received, and are as rich and attractive as ever. We have also *Godey's Lady's Book* for February. If any are wanted at our clubbing rates, twenty per centum below subscription rates, send address and money for one year of *Planter* and either one of these publications.

We have also *The North American Review* and *Popular Science Monthly* for this month, filled with matter adapted to the tastes of educated people, which we can also send with the *Planter* at the same rate of discount from one individual subscription.

REPORTS, &c.

ANNUAL REPORT of the Department of Revenue Settlement and Agriculture for 1882-83, Madras, India. This is a large publication, and valuable, as showing in contrast crops of this and the far-off eastern countries.

A REPORT on *Nitrification*, part 3, with Experiments in the Rothamsted Laboratory, England, by Robt. Warrington. The subject is presented under various heads, and is interesting to educated farmers.

REPORT of (U. S.) Department of Agriculture on the Soils and Products of South-western Louisiana. This report gives information as to soils, general crops, forests, climate, and other things.

TENNESSEE CROP REPORT for November, 1884, and Report of Weather Service. Commissioner McWherter will accept our thanks.

CATALOGUES.

We have received from Messrs. N. W. Ayer & Son, Newspaper Advertising Agents, Philadelphia, Pa., a beautiful *Calendar*. This firm ranks *number-one* in a long list of agencies, and our business with them has always been satisfactory.

CATALOGUE of the *Co-Operative Stock Farm* of A. P. & M. B. Rowe, Fredericksburg, Va. They have *thirteen* imported and registered *Jersey Bulls*; one hundred and four imported and registered cows and heifers. Then comes their *Farley Vale* herd, owned by M. B. Rowe and S. W. Corbin; the *Spring Hill* herd, owned by M. B. Rowe and John Washington; and the *Bowling Green* herd, owned by M. B. Rowe and A. B. Chandler; the *Auburn* herd, owned by M. B. Rowe and T. F. Taylor; the *St. Julien* herd, owned by M. B. Rowe and A. M. Bonlware; the *Boscobel* herd, owned by M. B. Rowe and W. A. Little; and the *Highland Home* herd, owned by M. B. Rowe and D. M. Lee. These different herds embrace 166 animals of the *Jersey breed*.

POULTRY KEEPER SERIES.—*Incubators and Breeders*, by P. H. Jacobs, editor of

the *Poultry Keeper and Farm, Field and Fireside*, Chicago, Ill. This is a good pamphlet for all who wish to learn of the artificial hatching and brooding of chickens.

T. W. WOOD, 1518 Main street, this city, sends us his Catalogue of farm, garden and flower seeds for 1885. Mr. Wood is an intelligent dealer who can be relied on. The most of his seeds and plants are of his own production, near the city. Send for his Catalogue, which will be mailed free.

HENRY W. WOOD, son of T. W. Wood, doing business at the corner of Sixth and Marshall streets, also sends us his Catalogue of field, garden and flower seeds, for 1885. It is free on application, and is suggestive and instructive on matters touching the garden and farm.

NEW ADVERTISEMENTS.

J. T. LOVETT, Little Silver, N. J., through N. W. Ayer & Son, Philadelphia, Guide to Fruit Culture.

GIBBONS & Co. (formerly Alex. Peoples), West Chester, Pa. We have advertized this firm for a number of years, and their transactions have been prompt and satisfactory. See their *ad.* as to hogs and dogs.

SILAS WILSON, Atlantic, Iowa, Grape-Vines, &c., through Alden & Co., Cincinnati, Ohio.

CO-OPERATIVE DAIRY COMPANY, Boston, Mass.

A. M. LANG, Poor Dale, Ky., Book on Poultry, through Alden & Co.

T. W. WOOD, Seedsman, this city, who is worthy of confidence.

ASSOCIATED FARMERS' POULTRY BOOK, through Ayer & Son, Philadelphia.

J. B. GRAY, Fredericksburg, Va., Live Stock of various kinds. No one who deals with Mr. Gray will have cause to complain.

FRANK FORD & SONS, Ohio, Early Tomatoes, through Ayer & Son, Philadelphia.

W. F. JACKSON, Jetersville, Amelia Co., Va., has for sale *Berkshire* and *Jersey Red* Pigs.

FORREST & Co., Brooklyn, N. Y., through Alden & Bro., Electric Belt.

J. C. EVERETT, Lima, Ind., Seeds, Fruit Trees, Vines, &c.

The SOUTHERN FERTILIZING COMPANY renew their advertisement with a seasonable change. See it. Among other things, they have something appropriate to Vineyards, which need nourishing at this time of the year.

MASON GIBBS, Homer, Mich., advertises, through Messrs. Lord & Thomas, Chicago, a novel implement, called "The Wheel-Barrow Seeder."

The SHAKER SEED COMPANY, Lehaon, N. Y., through Ayer & Son, Philadelphia, advertise their Field and Garden Seeds.

HENRY W. WOOD, this city, advertises his Field and Garden Seeds. Mr. Wood and his father, T. W. Wood, are well known here as reliable seedsmen, and our farmers should give them a liberal patronage.

SIMPSON & GAULT, Cincinnati, Ohio, advertise, through Messrs. Parvin & Sons, "The Queen of the South" portable Farm Mills.

DAVID B. PROSSER, this city, manufacturer of Saddles and all kinds of Harness, has been ten years in the business. His work is all done by hand, and with the best materials. Farmers cannot patronize a better man. Call on him, or write, and say that you have been recommended to do so by the *Planter*.

The FARM, FIELD AND STOCKMAN, an agricultural and live-stock journal, published in Chicago, Ill., advertises a long list of prizes in connection with its subscriptions.

B. S. WILLIAMS & Co., Kalamazoo, Mich., renew their advertisement of their *Wind Engines*, which attracted so much attention at our last State Fair. Any farmer who wants a wind-mill to keep in flow a supply of water for his stock-yard should correspond with this firm.

We call attention to the *ad.* of B. H. BRAGG, of Brems Bluff, Fluvanna Co., Va., who advertises Prolific Seed Corn.

Last, but not least, ASHTON STARKE, this city, advertises his large stock of Agricultural Implements and Machines, which he is offering at very low prices. See or correspond with him as to whatever you may want.

JOHN SAUL's Catalogues of everything pertaining to the Plant, Seed and Nursery business. Catalogue of new, rare and beautiful Plants, issued in January, with a colored plate free to customers; to others 10 cents, or plain copy free.

Catalogue of Roses.

All the novelties, as well as standard sorts, well-grown Pot Plants.

Catalogue of Seeds.

Every novelty of value, among Flowers and Vegetables.

Catalogue of Fruits.

All the standard Fruits—pears, apples, peaches, small fruits, &c.

Catalogue of Orchids.

Cool, intermediate and tropical Orchids.

JOHN SAUL, Washington, D. C.

VIRGINIA

Co-operative Stock Farm.

Herd-Registered Jersey Cattle

OF BEST STRAINS

A SPECIALTY.

Largest herd in Virginia, and first premium at Virginia State Fairs. Kept on four farms. Cotswold, Shropshire, and Southdown Sheep; Berkshire and Jersey Red Swine, and all the leading varieties of land and water fowls. Address

A. P. or M. B. ROWE.

CO-OPERATIVE STOCK FARM,

Jan 1st

Fredericksburg, Va.

FOR SALE!

Six or Eight Thoroughbred Devon Bull Cow Calves

From best families.

DILLARD & GRAVES,
de 1y Thornhill, Orange Co., Va.

C. LUMSDEN & SON,

823 Main Street, Richmond, Va.

Fine Watches, Jewelry,

Clocks, Spectacles, Wedding Rings, &c.

[ap 1y]

A Safeguard.

The fatal rapidity with which slight Colds and Coughs frequently develop into the gravest maladies of the throat and lungs, is a consideration which should impel every prudent person to keep at hand, as a household remedy, a bottle of **AYER'S CHERRY PECTORAL**.

Nothing else gives such immediate relief and works so sure a cure in all affections of this class. That eminent physician, Prof. F. Sweetzer, of the Maine Medical School, Brunswick, Me., says:—

"Medical science has produced no other anodyne expectorant so good as **AYER'S CHERRY PECTORAL**. It is invaluable for diseases of the throat and lungs."

The same opinion is expressed by the well-known Dr. L. J. Addison, of Chicago, Ill., who says:—

"I have never found, in thirty-five years of continuous study and practice of medicine, any preparation of so great value as **AYER'S CHERRY PECTORAL**, for treatment of diseases of the throat and lungs. It not only breaks up colds and cures severe coughs, but is more effective than anything else in relieving even the most serious bronchial and pulmonary affections."

AYER'S Cherry Pectoral

Is not a new claimant for popular confidence, but a medicine which is to-day saving the lives of the third generation who have come into being since it was first offered to the public.

There is not a household in which this invaluable remedy has once been introduced, where its use has ever been abandoned, and there is not a person who has ever given it a proper trial for any throat or lung disease susceptible of cure, who has not been made well by it.

AYER'S CHERRY PECTORAL has, in numberless instances, cured obstinate cases of chronic **Bronchitis**, **Laryngitis**, and even acute **Pneumonia**, and has saved many patients in the earlier stages of **Pulmonary Consumption**. It is a medicine that only requires to be taken in small doses, is pleasant to the taste, and is needed in every house where there are children, as there is nothing so good as **AYER'S CHERRY PECTORAL** for treatment of **Croup** and **Whooping Cough**.

These are all plain facts, which can be verified by anybody, and should be remembered by everybody.

Ayer's Cherry Pectoral

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass

Sold by all druggists.

DYSPEPSIA.

Sedentary habits, mental worry, nervous excitement, excess or imprudence in eating or drinking, and various other causes, induce Constipation followed by general derangement of the liver, kidneys, and stomach, in which the disorder of each organ increases the infirmity of the others.

The immediate results are Loss of Appetite, Nausea, Foul Breath, Heartburn, Flatulence, Dizziness, Sick Headaches, failure of physical and mental vigor, distressing sense of weight and fullness in the stomach, and increased Costiveness, all of which are known under one head as **Dyspepsia**.

In every instance where this disease does not originate from scrofulous taint in the blood, **AYER'S PILLS** may be confidently relied upon to effect a cure. Those cases not amenable to the curative influence of **AYER'S PILLS** alone will certainly yield if the **PILLS** are aided by the powerful blood-purifying properties of **AYER'S SARSAPARILLA**.

Dyspeptics should know that the longer treatment of their malady is postponed, the more difficult of cure it becomes.

Ayer's Pills

Never fail to relieve the bowels and promote their healthful and regular action, and thus cure **Dyspepsia**. Temporary palliatives all do permanent harm. The fitful activity into which the enfeebled stomach is spurred by "bitters," and alcoholic stimulants, is inevitably followed by reaction that leaves the organ weaker than before.

"**Costiveness**, induced by my sedentary habits of life, became chronic; **AYER'S PILLS** afforded me speedy relief. Their occasional use has since kept me all right." **HERMANN BRINGHOFF, Newark, N. J.**

"I was induced to try **AYER'S PILLS** as a remedy for **Indigestion**, **Constipation**, and **Headache**, from which I had long been a sufferer. I found their action easy, and obtained prompt relief. They have benefited me more than all the medicines ever before tried." **M. V. WATSON, 152 State St., Chicago, Ill.**

"They have entirely corrected the costive habit, and vastly improved my general health." **REV. FRANCIS B. HARLOWE, Atlanta, Ga.**

"The most effective and the easiest physic I have ever found. One dose will quickly move my bowels and free my head from pain." **W. L. PAGE, Richmond, Va.**

"A sufferer from **Liver Complaint**, **Dyspepsia**, and **Neuralgia** for the last twenty years, **AYER'S PILLS** have benefited me more than any medicine I have ever taken." **P. R. ROGERS, Needmore, Brown Co., Ind.**

"For **Dyspepsia** they are invaluable." **J. T. HAYES, Mexia, Texas.**

AYER'S PILLS,

PREPARED BY

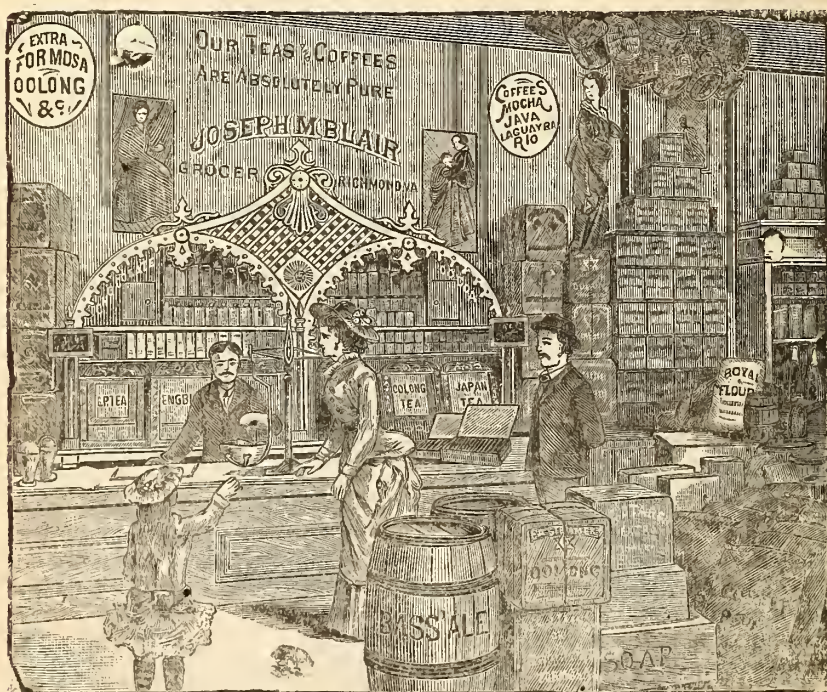
Dr. J. C. Ayer & Co., Lowell, Mass.

Sold by all Druggists

JOSEPH M. BLAIR,

—IMPORTER AND DEALER IN—

FANCY GROCERIES



FINE TEAS AND WINES

803 Main Street (Pace Block),

RICHMOND, VIRGINIA.

SAMPLES AND PRICES FURNISHED UPON APPLICATION.

A CHANCE TO MAKE \$1,000 ON A ONE DOLLAR INVESTMENT.

No Subscriber Will Receive Less Than 25 Cents in Cash.

The following list of Prizes will be awarded to the persons who subscribe for our paper between this date and the 30th day of March:

FOR ONE DOLLAR We will enter your name on our subscription books, and mail you regularly twice a month for **One Year** the **Farm, Field and Stockman** (24 pages), and send you immediately by sealed mail **three numbered receipts** good for three of the following presents:

The List of Presents to Be Given Our Subscribers:

10 U S Government Bonds of \$500 each.....	\$5000	100 Solid Silver Table Spoons.....	\$ 250
20 U S Greenbacks of \$100 each.....	2000	100 Solid Silver Desert Spoons.....	200
1 U S Government Bond.....	1000	100 Sets Silver Forks (6 to the set).....	1000
20 U S Greenbacks of \$50 each.....	1000	100 Sets Silver Plated Dinner Knives (6 to set)	250
50 U S Greenbacks of \$20 each.....	1000	100 Silver Sugar Shells.....	50
100 U S Greenbacks of \$10 each.....	1000	50 Silver Ice Pitchers.....	500
10 U S Greenbacks of \$5 each.....	500	1000 Photograph Albums, \$2 each.....	2000
5 Grand Parlor Organs.....	1000	1000 Pocket Silver Fruit Knives.....	1000
3 Grand Pianos.....	900	1000 Gentlemen's Pocket Knives.....	1000
1 Twenty-Foot Sloop Sail Boat.....	300	20 Gentlemen's Gold Watches.....	1600
1 Boh Roy Fifteen-Foot Canoe.....	100	20 Ladies' Gold Watches.....	1200
1 Four-Oared Row-boat.....	100	20 Boys' Watches.....	200
1 Columbia Bicycle.....	100	3 Solitaire Diamond Finger Rings.....	400
2 Phaetons.....	500	2500 Souvenir Art Portfolios.....	1200
5 Top Buggies.....	1000	500 Ladies' Gold Lockets.....	500
5 Elegant Black Silk Dress Patterns.....	200	500 Gold Finger Rings.....	500
2 Village Carts.....	200	400 Ladies' Breast Pins.....	400
5 Best Singer Sewing Machines.....	250	200 Gent's Scarf Pins and Watch Chains.....	200
2 Raw Silk Parlor Suits.....	400	2000 Fine Mounted Gold Toothpicks.....	2000
2 Plush Silk Parlor Suits.....	600	500 Beautiful Nickel Clocks.....	3000
5 Silver Dinner Services.....	500	2500 Gold Toothpicks.....	1000
1 Black Walnut Marble Top Chamber Suit... 100		2000 Gold Pencils.....	500
100 Sets Solid Silver Teaspoons—6 to the set... 600		104 Telescopes.....	520

Every subscriber who does not get one of the above valuable prizes will receive a present of **Twenty-Five Cents** in cash. Remember everyone who subscribes for one year will receive our twenty-four page elegant illustrated paper for one year and **Three Receipts good for three of the above presents** ranging from 25 cents in cash to **One Thousand Dollars in Cash**. Our paper has now a bona-fide circulation of 150,000 subscribers. Has been established eight years. All of the above presents will be awarded March 30th, in a fair and impartial manner. A full list of the award will be furnished subscribers free. Persons living at a distance will have presents sent them by mail, express or freight, as may be required by the article awarded. Positively no postponement.

THE ONE DOLLAR which you send us is the regular subscription price for a yearly subscription, and therefore we charge nothing for the presents. Do not let this opportunity go by. We believe you will like our paper so well that you will remain a regular subscriber, and say with others that you would not be without it for five times the cost. **YOUR SUBSCRIPTION FREE.** Get five of your friends to join you by cutting this out and showing it to them. Send us **\$5** and we will send you the paper for one year, and three numbered receipts for each of your subscribers and two extra for your trouble.

SEND TEN SUBSCRIBERS with \$10 and we will send **12 papers one year and 36 numbered receipts good for thirty-six presents**, and in addition we will send you at once a **solid hunting cased gold Aluminum Watch free**. This watch is a fine time keeper and cannot be told from a genuine gold watch. You can trade this watch for from twenty to fifty dollars. You can have the papers sent to you friends and we will make the receipts all out in your name. We could not make this watch offer did we not control the entire product of the factory.

FARM, FIELD AND STOCKMAN is one of the oldest and ablest edited Family and Agricultural papers. It contains twenty-four large pages. The paper is magazine form, bound, stitched and cut. Its circulation is now **150,000. SAMPLE COPY SENT FREE.** Stories, Sketches, Poetry, Farm, Garden, Household and Agricultural Departments by the best Contributors of the day. In short, it contains that which will interest, instruct and amuse the whole family. Our reputation is fully established and the people are satisfied that we have capital enough to carry out and fulfill any offer we may make. Can it be possible that you will let such an opportunity go by?

ONE DOLLAR secures the **FARM, FIELD AND STOCKMAN** for one year, and three numbered receipts which will entitle you to three of the presents in the award. The paper is worth double the subscription price. As to our reliability we refer to any Bank or Express Company in Chicago and the Commercial Agencies. We are now known the world over. Money in sums of \$1 may be sent in ordinary letter at our risk; larger sums should be sent by Registered Letter, P. O. Money Order or Express.

REMEMBER these are Presents to our Subscribers given to them absolutely Free. Cut this out and show to friends, acquaintances and neighbors, as it will not appear again. This is a great opportunity and you should take advantage of this extraordinary offer. Address **FARM, FIELD AND STOCKMAN, 29 Randolph St., Chicago, Ill., U. S. A.**

HIGGIN'S EUREKA ENGLISH HIGH GRADE

DAIRY AND TABLE

SALT

Has no equal for Purity, Strength, Flavor, Uniform Grain of Crystal, Keeping Quality, Perfect Dryness and Cheapness. Butter and Cheese salted with it carried the Highest Premiums over everything else, wherever put in competition. The Queen of England uses it. Hotels and Families should use no other. Salt is the cheapest article in the household. Why not use the best?

—FOR SALE BY—

CHRISTIAN & WHITE,

Importers and Dealers in Fancy Groceries,
RICHMOND, VA.

[dec 1y]

Received Medal
AND
HIGHEST AWARD

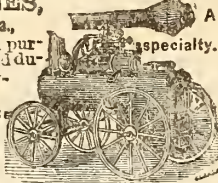


OF MERIT
AT
CENTENNIAL
Send for Catalogue

STEAM ENGINES,
A. B. FARQUHAR, York, Pa.

Cheapest and best for all purposes—simple, strong, and durable. Also Horse Powers and Gin Gear.

SAW, GRIST AND COB MILLS, GINS, PRESSES AND MACHINERY generally. Inquiries promptly answered.



Vertical Engines, with or without wheels, very convenient, economical and complete in every detail, best and cheapest Vertical in the world. Fig. 1 is engine in use. Fig. 2 ready for road.



The Farquhar Separator

(Warranted) Pure Agricultural Works, York, Pa.

Highest draft, most durable, most economical and perfect in use. Write for price list and catalogue.



Separates Hops, Berries and all kinds of Cultivators, &c., &c.

AND
GOLDEN PRIZE
AWARDED
SEPARATORS.



THE
SILVER MEDAL
AT
Paris Exposition.

Send for Illustrated Catalogue. Address A. B. Farquhar, York, Pa.

je 11



Dana's White Metallic Ear Marking Label, stamped to order with name, or name and address and numbers. It is reliable, cheap and convenient. Sells at sight and gives perfect satisfaction. Illustrated Price-List and samples free. Agents wanted.

C. H. DANA, West Lebanon, N. H.
Order through the Southern Planter.

je tf

ROCKFORD WATCHES

Are unequalled in EXACTING SERVICE.

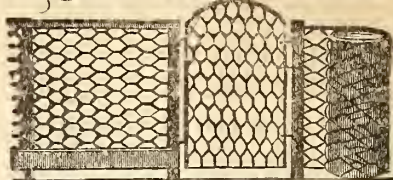


Used by the Chief Mechanician of the U. S. Coast Survey; by the Admiral commanding in the U. S. Naval Observatory, for Astronomical work; and by Locomotive Engineers and Railwaymen. They are recognized as

for all uses in which close time and durability are requisites. Sold in principal cities and towns by the COMPANY'S exclusive Agents (leading jewelers,) who give a Full Warranty.

je 17

Sedgwick Steel Wire Fence



Is the only general purpose Wire Fence in use, being a Strong Net-Work Without Barbs. It will turn dogs, pigs, sheep, and poultry, as well as the most vicious stock, without injury to either fence or stock. It is just the fence for farms, gardens, stock ranges and railroads, and very neat for lawns, parks, school lots and cemeteries. Covered with rust-proof paint (or galvanized) it will last a life-time. It is Superior to Boards or Barbed Wire in every respect. We ask for it a fair trial, knowing it will wear itself into favor. The Sedgwick Gates, made of wrought-iron pipe and steel wire, defy all competition in neatness, strength and durability. We also make the best and cheapest All Iron Automatic or Self-Opening Gate, also Chaplet and Neatest All Iron Fence, Best Wire Stretcher and Post Auger. Also manufacture Russell's excellent Wind Engines for pumping water, or geared engines for grinding and other light work. For prices and particulars ask Hardware dealers, or address, mentioning paper.

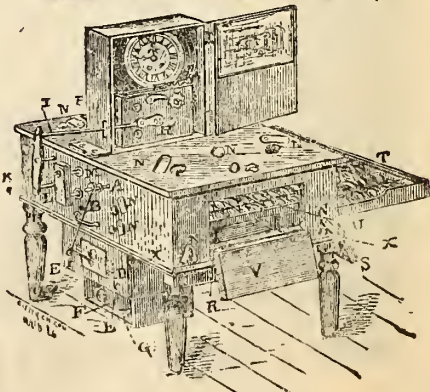
SEDGWICK BROS. M^{rs}. Richmond Ind.

je 17

THE BEST CATTLE FASTENING.

Smith's Self-Adjusting Swing Stanchion.

The only practical Swing Stanchion invented. Thousands in use. Illustrated circular free. Manufactured by BROOKS & PARSONS, Addison, Steuben Co., N. Y. ASHTON STARKE, Richmond, Va., Ag't. my 17



=EUREKA! =

Is the Standard Incubator the world over. Made by J. L. CAMPBELL, West Elizabeth, Allegheny Co., Penn. au 17

Dr. GEORGE B. STEEL,



723 Main Street, Richmond. Va.
CHAS. L. STEEL, M. D., D. D. S., Assistant.
oct 17

KNABE

PIANOFORTES.

UNEQUALLED IN
Tone, Touch, Workmanship and Durability.

WILLIAM KNABE & CO.
Nos. 204 and 206 West Baltimore Street,
Baltimore. No. 112 Fifth Avenue, N. Y.
de 3m

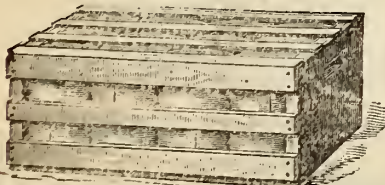
VIRGINIA VILLA.

This most desirable residence is now for sale. It is situated one mile from Petersburg, on the Richmond Turnpike, and combines all the advantages of city and country life. The place contains twelve acres, more or less, and can be made profitable as a vegetable farm. Improvements consist of a handsome frame dwelling with six rooms, hall above and below stairs, porch in front, verandah in rear of the house, and is situated in a shady lawn of original oaks. The outhouses are a frame kitchen with two rooms, smoke-house, milk dairy, stable and carriage-house. There is a large orchard of select apples; also peach, pear, plum, cherry, damson and quince trees, with gooseberries and raspberries. This property will be sold for cash, and offers an opportunity to a person to secure a delightful home. Those wishing to buy will call at the residence, or address Mrs. H. V., Petersburg, Va.
dec3t

FOR SALE!
THOROUGHbred HORSES
AND SHORTHORN CATTLE.
PURE COTSWOLD SHEEP.

And BERKSHIRE PIGS.

Address, R. J. HANCOCK,
oc 12t Overtou, Albemarle Co., Va.



BRADLEY BUTTER BOXES

The sweetest, cheapest and most attractive small butter package ever offered. Butter sells quicker and brings better prices for family trade than in any other package. Send for descriptive price list. CHAS. P. WILLARD & CO., 280 Michigan St. CHICAGO.

dec 4t



Address, **TAYLOR MFG. CO.**
(Please Mention this Paper.) Chambersburg, Pa.
my ly—alt

FURCELL HOUSE, Norfolk, Va.

Conveniently located and all modern improvements. PHILIP F. BROWN & BRO., Prop'rs.

Blue Ridge Springs, Va., BOTETOURT CO., VA.

The celebrated Dyspepsia Water and charming summer resort.
je ti PHIL F. BROWN.

A FRAGRANT BREATH.

MEADE & BAKER'S

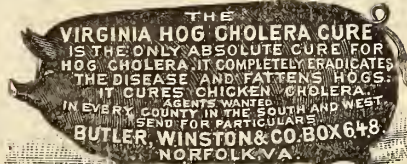
Carbolic Mouth Wash

An essential requisite for the Toilet. Heals all diseases of the Gums. Disinfects decayed Teeth. An excellent gargle for Sore Throat. A delicious and fragrant Mouth Wash. Purifies the breath. Prepared only by

T ROBERTS BAKER, Pharmacist,
919 east Main street, Richmond, Va.

FOR SALE BY ALL DRUGGISTS.

Price, 50 cents a bottle.
CAUTION.—Beware of worthless imitations of style of wrapper, bottle and label. Ask for MEADE & BAKER'S, and take no other. no12t



**A SURE
PREVENTIVE AS WELL AS CURE**

je 1y



THIRTY YEARS' EXPERIENCE in the business enables me to offer the **BEST STRAINS OF VEGETABLE, FLOWER, AND FIELD SEEDS.**

For **PURITY, Vitality, and Superior Quality,** they cannot be excelled, especially for those who appreciate a choice stock of seeds. A trial is requested and they will recommend themselves. **Smith's Seed Catalogue,** with select lists of Vegetable, Flower and Field seeds, and Bulbs, also Implements and Garden Requisites, mailed to all applicants free. **W. H. SMITH, Seedman,** (Late of the Firm of Henry A. Dreer) **1018 MARKET STREET, Philad'a.**

Jan 3t

THE WORLD'S EXPOSITION

Opens Tuesday, December 16, 1884.

In the presence of the Presidents of the American Republics, viz: Arthur, of the United States; Diaz of Mexico; Barrios, of Guatemala; Pogran, of Honduras.

**The Colossal Exhibit
of all Time!**

Sixteen (16) Immense Exhibition Buildings:

One—the largest building ever erected, another—the largest Conservatory in the World.

90 Acres of Space Under Cover!

Low Transportation Rates from all Ports. Ample Accommodations at Reasonable Rates for all Visitors.

During the period of the Exposition, from December 16, 1884, to June 1, 1885 the temperature at New Orleans averages 65 Fahr. The lawn and shrubbery remain green, flowers bloom, fruits ripen, and all kinds of vegetables grow and mature.

Full information promptly furnished. Address,

**E. A. BURKE, Director General,
New Orleans, La.**

an 2t

The oldest Agricultural Journal in Maryland,
and for ten years the only one.



an 3t
OPIMUM and **WEISKY HABITS** cured
at home without pain. Book
of particulars sent Free.
B. M. WOOLLEY, M. D., Atlanta, Ga.

ap 1y

J. T. GATEWOOD,

DEALER IN

Fine Groceries

LIQUORS AND FEED.

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

SIBLEY'S ★TESTED★ SEEDS

SEND for our ILLUSTRATED and DESCRIPTIVE CATALOGUE of SEEDS Vegetable, Flower, and Field PLANTS, BULBS, FLORISTS' SUPPLIES and IMPLEMENTS of ALL KINDS, mailed FREE on application.

HIRAM SIBLEY & CO.
ROCHESTER, N. Y. CHICAGO, ILL.
322-326 E. Main St. 200-206 Randolph St.

jan 3t

TOBACCO

The Largest
Stock of

SHED

Select varieties in the World, suited to every type to choose from. PEDIGREE SEEDS, from 10 to 50 years, under improvement, and new kinds of Unsurpassed Excellence. Quality Guaranteed, and Prices Lower than ever. Price List FREE.

ja 3t

R. L. RAGLAND, Hycoc, Va.



sep 5t

What 26¢ Will Do!

In order to secure new customers, we will send 100 Choice Embossed Pictures, 4 German Dolls' Heads, 12 Great Birthday Cards, 8 Imported Chromos, 25 Pretty Album and Edward Cards, 1 Album of 50 Colored Transfer Pictures, 100 Selections for Autograph Albums, 10 Odd Games, 6 new style Red Napkins, 1 Pack Puzzle Cards, 1 Pocket Book. All the above goods for 26 cts. Address, **F. S. AVERY,** 118 South 4th Street, Williamsburg, N. Y.

jan 1t



'Singer' Model Sewing Machines only \$15
Including an \$8.00 set of extra attachments of pieces and needles, oil and usual outfit of 12 pieces with each. Guaranteed perfect. Warranted 5 years. Handsome, durable, quiet and light running. Don't pay \$30 to \$50 for machines no better. We will send ours anywhere on trial before paying. Circulars free. Save \$15 to \$35 by addressing

GEO. PAYNE & CO., 47 Third Ave., Chicago, Ill.

jan 3t

ALLISON & ADDISON,

MANUFACTURERS OF

FERTILIZERS

"STAR BRAND" SPECIAL COMPLETE MANURES

FOR EACH OF THE FOLLOWING CROPS:

TOBACCO, WHEAT, COTTON, CORN, OATS, VEGETABLES AND GRASS.

Pure Flour of Raw Bone, Acid Phosphate, Ground Phosphate Rock, Sulphuric Acid.

—DEALERS IN—

German Kainit or Potash, Nitrate of Soda, Plaster, &c.

OFFICE—1322 Cary Street,
FACTORY—Opposite Rocketts, }

RICHMOND, VA.

 All orders and communications promptly attended to.

fe tf



THE "PLANET JR" HOLLOW STEEL STANDARD NEW HORSE HOE

As lately introduced, has no equal in the world. Its excellent work in the field has distanced that of all competitors. It is, in some sections, doing in one passage, the work of four or five old-style implements, and in others superceding the cumbersome and expensive two-horse tools. The "PLANET JR" HAND SEED-DRILLS AND WHEEL HOES are the newest and best, lightest and strongest known. There are 7 distinct tools, each with special merits, no two alike or the same price; all practical and labor-saving. Let no Farmer or Gardener fail to study up during the winter evenings our 1885 CATALOGUE, which gives reduced prices, careful and exact engravings of these different machines, and such descriptions as will enable the reader to judge correctly of their merits. Thirty pages and forty engravings. Free to all. Correspondence solicited. S. L. Allen & Co., Mfrs., 127 & 129 Catharine St., Phila., Pa.



[dec 4t]

FRANKLIN DAVIS.

EDWARD H. BISSELL.

RICHMOND NURSERIES. FRANKLIN DAVIS & CO.

400 Acres in Nursery Stock! 100 in Orchards! 100 in Small Fruits!

We offer to our customers an immense stock of APPLES, PEACHES, CHERRIES, APRICOTS, GRAPES, &c—all the standard sorts. Also, the new varieties of FRUITS, ORNAMENTAL TREES, SHRUBS, ROSES, &c., Wholesale and Retail. To dealers we can offer stock on favorable terms, and the best facilities for packing and shipping. Catalogues mailed on application.

FRANKLIN DAVIS & CO.,

sep 6t

Office: 1013 Main St., RICHMOND, VA.

T. W. WOOD, Seedsman and Florist.

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.

fe 1y

SHOW YOUR CLOVER AND TIMOTHY

WEIGHT 45
POUNDS.



SONS 14 FT.
WIDE.

MICHIGAN WHEELBARROW SEEDER.

Send for circular describing latest improvements.
MICHIGAN WHEELBARROW SEEDER CO., MICH.

fe 2t

FOR SALE! \$5 each or \$8 per pair, a few pure, thoroughbred Berkshire Pigs, 2 months old 1st of February. Also, pigs out of Jersey Red sows by large pure Berkshire Boar, the most desirable cross. Will exchange one of these or pure bronze gobbler for a pea-hen. Bronze Turkeys for sale.

WILLIAM F. JACKSON,
Jetersville P. O., Amelia Co., Va.

fe 2t

GUIDE TO FRUIT CULTURE

Is a sumptuously illustrated book of over 700 pages. It tells how to grow fruits of all kinds, gives honest descriptions of all worthy Small Fruits and others; representing the largest stock in the U.S. It contains full instructions for planting, pruning and obtaining Fruit Trees and plants; and a fund of information invaluable to all interested in fruit culture—especially beginners. Price, with plates 10c.; without plates 5c. Price lists free. We ship to all points safely.

J. T. LOVETT, Little Silver, New Jersey.

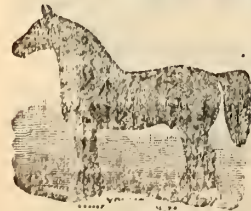
fe 2t

DAVID B. PROSSER,

Manufacturer and Wholesale and Retail Dealer in

Saddles & Harness

Of all Grades and Prices.



Large Stock of Saddles, Harness, Bridles, Collars, Hames, Horse Blankets, Whips, Spurs, &c.

Repairing of every description cheaply and neatly done.

No. 1828, cor. 14th and Main, Richmond, Va
Mention the Planter.

fe 3t

TRAVELERS' REST STOCK FARM.

J. B. GRAY,

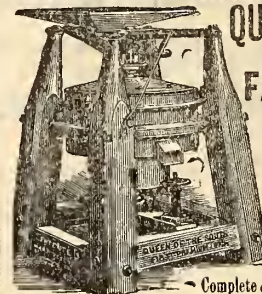
Breeder and Shipper of Registered

Jersey and Shorthorn Cattle

Pure Cotswold Sheep and Registered Poland-China Swine

Of the most approved type and breed. Now hooking orders for spring pigs. Choice lot of Bull and Heifer Calves for sale. Send for Catalogue.

P. O. Address, Fredericksburg, Va. fe 2t



QUEEN OF THE SOUTH PORTABLE FARM MILLS

1 or 2 Stock Feed or Meal for Family use.

10,000 in Use Write for Pamphlet.

Simpson & Gault

M'F'CO.

SUCCESSORS TO STRAUB MILL CO. CINCINNATI, O.

Complete & Cheap Flour Mill Outfits.

fe 3t

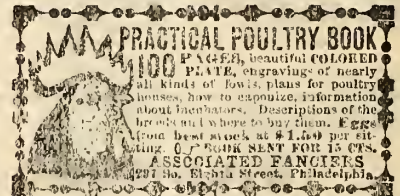
SEEDS!

FRESH and RELIABLE SEEDS for the Farm and Garden. GRASS and CLOVER SEEDS, SEED GRAIN and POTATOES at lowest prices.

SEND FOR DESCRIPTIVE CATALOGUE of Garden, Field and Flower Seeds for 1885. Mailed free on application.

HENRY W. WOOD, Seedsman,

fe 3t Sixth and Marshall Sts., Richmond, Va.



PRACTICAL POULTRY BOOK

100 PAGES, beautiful COLORED PLATE, engravings of nearly all kinds of fowls, plans for poultry houses, how to manage, information about incubators. Descriptions of the breeds and where to buy them. Eggs found best stock at \$1.50 per sitting. 67 CENTS SENT FOR 15 CENTS. ASSOCIATED PUBLISHERS 421 So. Fifth Street, Philadelphia.

fe 4t

GRAPE VINES.

All varieties old and new. Including N I A G A R A. Largest Stock in AMERICA. CATALOGUE FREE. SILAS WILSON, ATLANTA, IOWA.

fe 1t



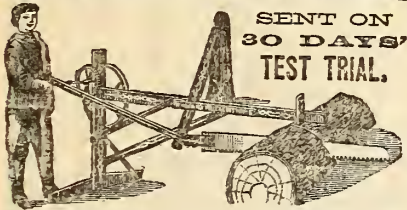
Water Wheels & Millstones

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



Sawing Made Easy.

MONARCH LIGHTNING SAWING MACHINE



For logging camps, wood-yards, farmers getting out stove wood, and all sorts of log-cutting—it is **UNRIVALLED**, easy, immense saving of labor and money. Write for elegantly illustrated catalogue in 6 brilliant colors, also brilliantly illuminated poster in 6 colors, all free. Agents Wanted. *Buy machines in the quantity.*
MONARCH MFG CO., (A) 203 State St., Chicago, Ill.

fe 5t

ADVANCE OUR NEW TOMATO 90 DAYS

EARLIEST OF ALL, round, smooth, bright, red, productive, **no rot**, good shipper, best quality. Having grown Tomatoes in Florida for Northern market, we believe this will be found better and more profitable than any now grown for that purpose. Per pkt., 100 or more seeds, 25 one-cent stamps. **SOUND VEG-TABLE SEEDS in Great Variety. SEED POTATOES, SMALL FRUIT PLANTS.** Best kinds, fair prices. 1885 Catalogue free to all.

FRANK FORD & SON,

Sunnyside, Ravenna, Ohio.

fe 1t

SEEDS ALL TESTED TRUE TO NAME.

Immense Stock.

CATALOGUE (1885) telling all about **OLD and NEW** varieties, full **DESCRIPTIONS**, profusely **ILLUSTRATED**, much valuable **INFORMATION**. Sent to all applying **FREE**. Large stock Fruit Trees, Small Fruits and Vines.

fe 3t


J. C. EVERITT, Lima, Ind.



**25 YEARS IN THE
POULTRY YARD.**

10th Edition, 100 pages, explaining the entire business. Gives symptoms and best remedies for all diseases. A 50-page illustrated catalogue. All for 50c. In stamps.
A. M. LANG,
 Cove Dale, Lewis Co. Ky.

fe 1t



STEVENS' FRENCH BUHR CORN & MEAL MILLS

The cheapest and **BEST** mills in the world. Prices \$30 and upwards, subject to cash discount. Send for circulars to
A. W. STEVENS & SON
 ALBURN, N. Y.
 Mention this paper.

fe 2t

WANTED, LADIES AND GENTLEMEN who wish to make \$25 to \$40 a day easily at their own homes. Work sent by mail. No canvassing. Address with stamp **Crown Mfg. Co., 204 Vine St., Cin. O.**

SHAKER'S FAMOUS GARDEN SEEDS

New Crop at Greatly Reduced Prices.

If you want **Splendid Vegetables** and **Beautiful Flowers**, always plant them. Special inducements to Grangers and Market Gardeners. **Splendid Illustrated Guide** mailed **Free to All** who want seeds. Write for it. Endorsed by the leading Agricultural journals of the country. Established 1794. Address

SHAKER SEED CO.,

Mt. Lebanon, N. Y.

fe 2t

TO FARMERS AND SHIPPERS.

—THE—

American Co-Operative Dairy Co.

INCORPORATED MAY 24, 1884.

—WITH A—

CAPITAL STOCK OF \$100,000.

Offer extra inducements for consigners of

Butter, Eggs, Beans, Cheese, Poultry, Game, and all kinds of Farm Produce.

This company is duly established by law, and farmers, shippers or dealers can depend upon prompt and honest returns for all consignments.

For particulars address **J. W. WHITE, Sec'y,** 31 Beach street, Boston, Mass.

fe 3t

Mention the Planter.


CRAFTS, STOCKS, TREES—Everything Nurserymen, Fruit Growers and Amateurs. **STARK NURSERIES, Louisiana, Mo.** 51st year. 300 acres. fe 2t

BLUEBERRY a valuable Fruit, succeeds on all soils, and is a profitable fruit to grow for market. Two dozen plants by mail, \$1. Descriptive price-list free.

DELOS STAPLES,

fe 2t

West Sebewa, Ionia Co., Mich.



Chester White, Berkshire and Poland-China Pigs, Fine Setter Dogs, Scotch Collies, Fox Hounds, and Beagles, Sheep and Poultry, bred and for sale by **W. GIBBONS & CO.,** West Chester, Chester county, Pa. Send stamp for circular and price-list. fe 1y

THE NEW ENGLISH COMPANY,

FOR THE

Sale and Purchase of Land in Virginia,

Have many enquiries for the purchase of farms and real estate, and have already made extensive sales at good prices. Those wishing to sell or buy land, or farm property, should apply at once to **G. B. LYNES,** Ivey depot, Albemarle county, Va.

Parties wishing to look at farms can be boarded by advertizer

G. B. LYNES.

sep 6t

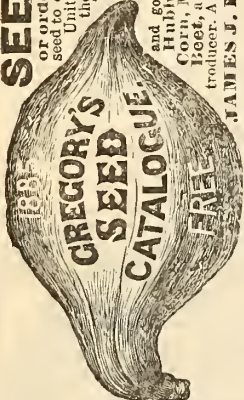
DEREDICK'S HAY PRESSES.
 the customer
 keeping the one
 that suits
 best.
 are
 and will
 operate
 on trial or
 purchase



Order on trial, address for circular and location of
 Western and Southern Storehouses and Agents,
P. K. DEDERICK & CO., Albany, N. Y.
 myly

SEED WARRANTED TO GROW.

or order refilled gratis. I have sold vegetable and flower seed to over a million farmers and gardeners in the United States; perhaps some of you have had so much of the seed that you have to get rid of it. The best of the seed is yours. I have lived in Iowa, Missouri, Colorado, and Kansas. You, Kansas writes me: "For 26 years I have dealt with you, and no matter what the soil or climate, the result was always the same, to wit—religiously honest and good." This is the kind of seed I raise and sell. The Hubbard and Marblehead Squash, Marblehead Corp, Marblehead Cabbages, Ohio Potatoes, Kelpise Potatoes, and other seeds. See my catalogue, free to all.



JAMES J. H. GREGORY, (Seed Grower), Marblehead, Mass

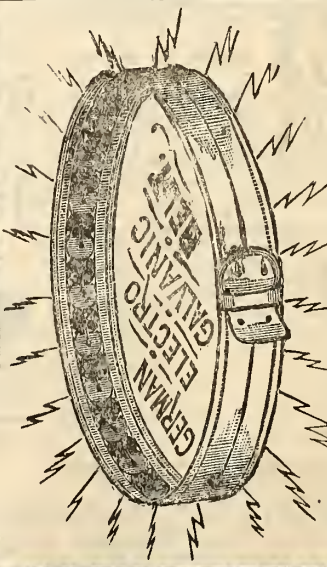
jan 31

FAY CURRANT HEAD-QUARTERS. BEST STOCK IN THE WORLD
FAY GRAPES
 SMALL FRUITS AND TREES. LOW TO DEALERS AND PLANTERS. EVERYTHING FIRST-CLASS. FREE CATALOGUES. **GEO. S. JOSSELYN, FREDONIA, N. Y.**

jan 5t

Special Offer For 90 days

THE BEST ELECTRIC BELT EVER MADE \$1



A Better Cure for RHEUMATISM, LIVER, STOMACH AND KIDNEY DISEASES, DISEASES OF THE HEAD, SKIN DISEASES, REMEDY COMPLAINTS, PATIALYSIS, NEURALGIA, OAFARSH, LAME BACK, AND NERVOUS DEBILITY.

Having obtained the sole right to sell the German Electro-Galvanic Belt in America from the inventor, Prof. Conrad Ziegler of Berlin, we are determined, whatever may be the cost, to introduce them here at once in order to give to all who are afflicted with the above named ailments a trial in a trial way for the next ninety days, send the German Electro-Galvanic Belt for ONE DOLLAR, provided you will cut out and send us the annexed coupon and give us your written promise to recommend the Belt if you find it as represented. This Belt is without doubt the best, strongest, and most scientifically constructed. It has been tried and approved by the best physicians in the German Empire. It has been recommended and endorsed by the entire Medical Profession of Germany. The inventor has in his possession letters from Prince Bismarck and several members of the Royal Family. A quarter of a million of them were sold in the German Empire last year. These belts, unlike many so-called electric appliances, are very light and not fatiguing. They are so constructed that they can be made to act on any part of the body. Their action is stimulating and at the same time soothing; causing the Stomach, Liver, Kidneys and Nervous System to perform their natural functions. They are intended they should. Curing thousands of cases that internal medicines failed even to relieve. Under no circumstances should they be worn at night, as they may do harm and must do good no matter what is the complaint. They are made of cloth, silk lined, and the current is so regulated that it is perfectly safe. They are guaranteed that they retain their strength 20 years.

This Coupon is worth \$5.00.
 If you will cut out this Coupon and send it to us with ONE DOLLAR in a registered letter, we will send you postpaid by return mail, ONE GERMAN ELECTRO-GALVANIC BELT with full directions in both English and German. Write Name and Post Office Address very plainly and give your waist measure in inches.
FORREST & CO., Sole Agents, 116 Flatbush Avenue, Brooklyn, N. Y.
OUT THIS OUT.

Good Agents Wanted. Circulars in German and English. Address, naming this paper, **FORREST & CO., Sole Agents, 116 Flatbush Avenue, Brooklyn, N. Y.**

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,

fe

W. A. PARSONS,

Maiden's, Goochland Co., Va.



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.

fe 4t

DAIRYMEN and FARMERS } HOC DISEASES.—The "Arm and Hammer" should use only the "Arm and Hammer" brand } brand Soda and Saleratus is used with great for Cleaning and Keeping Milk Pans Sweet and } success for the prevention and cure of HOC Clean. It is the Best for all } CHOLERA and other diseases. Household Purposes. } Mix with the animal's food.

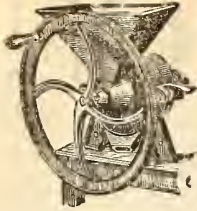


"ARM & HAMMER BRAND"



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



Farm Grist Mills and Shellers.

OVER 30,000 NOW IN USE.

Every machine is warranted to suit, or money refunded.

PRICE OF MILLS, \$20 TO \$40.
SHELLERS, \$5.



Do not buy a mill or sheller until you have seen our terms and illustrated Circular.
Address, with stamp, **LIVINGSTON & CO., Iron Founders,**
dec 3t **PITTSBURGH, PA.**

SAUL'S NURSERIES,

WASHINGTON, D. C.

The undersigned offers a fine stock of the following: New Pears, New Peaches, New Cherries, New Grapes, New Strawberries, &c., Fruit Trees of all kinds.

An extensive stock, viz.: Plums, Cherries, Apricots, Apples, suitable to the South, &c. Grape Vines, Strawberries, Raspberries, &c., new sorts Evergreens, New Ornamental Trees, New Shrubs, &c., Small sizes, suitable for Nurserymen, as well as large stock in great variety.

DUTCH BULBS—Large importations direct from the leading growers in Holland. First quality Bulbs, Hyacinths, Lilies, Tulips, &c. New and rare Greenhouse Plants, Winter Blooming Plants.

NEW ROSES—Bennett's Hybrid Teas, Queen of Bedders, New French and English Roses, &c.
Everything at low rates. Catalogues mailed to applicants.

no 6t

JOHN SAUL, Washington, D. C.

ST. CLAIR HOTEL,

Corner of Ninth and Grace St., Richmond, Va.

STRICTLY FIRST-CLASS IN ALL ITS APPOINTMENTS

This Hotel fronts upon the beautiful Capitol Park—the most elevated, central and fashionable portion of the city.

TERMS: \$2.00 AND \$2.50 PER DAY.

STEPHEN HUNTER,

Proprietor.

UNIVERSITY of VIRGINIA

The Session begins on the **FIRST OF OCTOBER**, and continues until the Thursday before the fourth day of July ensuing.

The Institution is organized in separate Schools on the Eclectic System, embracing **FULL COURSES OF INSTRUCTION IN LITERATURE AND SCIENCE**, and in the **PROFESSIONS OF LAW, MEDICINE,**

ENGINEERING AND AGRICULTURE.

THE EXPENSES of the student (except such as enter the practical laboratories) exclusive of the cost of text-books, clothing and pocket money, are from \$356 to \$391, according to Schools selected; or, for those who economize by messing, these expenses are from \$266 to \$300. No charge for tuition candidates for the ministry unable to meet the expense.

Apply for Catalogues to **W. A. WINSTON, Secretary, P. O. University of Virginia, Albemarle county, Va.** **JAMES F. HARRISON, M. D., Chairman of the Faculty.**

dely

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.

H. T. MILLER & CO.,

MANUFACTURERS,

Cor. Ninth and Main Sts., Richmond, Va.
[oct 1y]

H. E. MAGRUDER, Pres. O. REIERSON, Sec. & Tr.
R. T. W. DUKE, V. Pres. G. ARNAND, Supt.

Monticello Wine Co.

Monticello Wine Company makes absolutely PURE GRAPE WINES AND BRANDY.

Norton's Virginia, Clinton, Ives, Virginia Claret (Concord) Delaware and Catawba.

Address the Company, or

OSCAR REIERSON, Sec.,
sep 6t Charlottesville, Va.

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.

tf

THE SCIENCE OF LIFE. ONLY \$1.

BY MAIL POSTPAID.



KNOW THYSELF.

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 be 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 officers of which he refers.

This book 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 this book 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** other **THYSELF** treated successfully without an instance of failure. **THYSELF** ap 1y

Mention this paper.

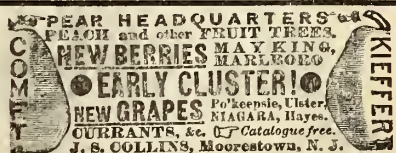
J. W. DOLIN,

Real Estate Agent,

P. O. Box 216, CHARLOTTESVILLE, VA.

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.



oc 7t

PATENTS Hand-Book FREE.
R. S. & A. P. LACEY,
Patent Att'ys, Washington, D. C.

sep 6t

VIRGINIA STATE INSURANCE COMPANY.

OFFICE: 1006 MAIN STREET, RICHMOND, VA.

INCORPORATED IN 1865.

CASH CAPITAL, - - - - \$200,000.

Insures Dwellings, Stores, Merchandize, and other property against loss or damage by fire

DIRECTORS.—J. L. BACON, President; THOS. W. MCCANCE, Vice-President. Wm. H. Haxall, James Alfred Jones, Thos. Atkinson.

RO. E. RICHARDSON, Sec.

JNO. B. GRANT, JR., Ass't Sec.

W. G. MAURY, Solicitor.

Agents in all the prominent Cities, Towns, and Villages of Virginia

seply

BELMONT STUD & STOCK FARM

Was commenced in 1847, and has been continuously improved, and two grazing farm added, with the kind of stock my experience has adopted as best suited to our country's wants. I have bred only from stallions or mares of my breeding or importation, and suited to the wants of any section, and will sell any of above of three years old and over, and in plain, unpampered condition, will let stallions, if not sold on safe business terms, for seasons of 1884. I have bred of several breeds of Cattle, but of late years *only the Pure Shorthorns*, and have all ages for sale, especially young Bulls, Heifers and Calves. I breed only the best Berkshire Swine, and have a number of Boar and Sow Shoats and Pigs for sale; also, White Brahma Fowls and their Eggs. There may be other stock as good, or better, but my experience has settled on these, and I feel that I am doing a public good to forward the propagation of these improved breeds.

S. W. FICKLIN.

Near Charlottesville, Va., Jan. 1st, 1884.

ap 1y

SHORTHORN BULLS

THE GREEN HILL HERD OF SHORTHORN CATTLE is headed by the pure Bates' illustrious Rose of Sharon Bull, **Hogarth**, winner of eleven sweepstakes and first prizes at Virginia Fairs.

We offer for sale **FINE YOUNG BULLS** of the highest breeding and individual excellence ready for

spring service. The sires and dams of the above bulls have won many premiums. Will sell cheap. Correspondence solicited. Address
Jan 3t

C. B. McDONALD & CO., Cor-
Blacksburg, Montgomery Co., Va

Send for
Catalogue
and
Prices.

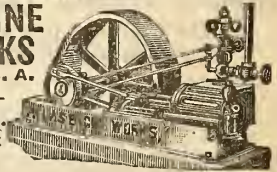


ATLAS ENGINE WORKS

INDIANAPOLIS, IND., U. S. A.
MANUFACTURERS OF

STEAM ENGINES & BOILERS.

Carry Engines and Boilers in Stock
for immediate delivery.



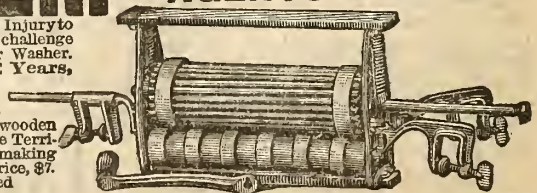
ly 12t

THE KEYSTONE WASHER.

OVER 300,000 IN ACTUAL USE
And all giving perfect satisfaction.

AGENTS WANTED.

Will wash Cleaner, Easier, and with Less Injury to Clothes than any other in the World. We challenge any manufacturer to produce a better Washer. Every Machine Warranted FIVE Years, and Satisfaction Guaranteed. The only Washer that can be clamped to any sized tub like a Wringer. Made of malleable iron, galvanized, and will outlast any two wooden machines. Agents wanted. Exclusive Territory. Our agents all over the country are making from \$75 to \$200 per month. Retail price, \$7. Sample to agents, \$3. Also our celebrated



KEYSTONE WRINGERS AT LOWEST WHOLESALE PRICES.

Circulars Free. Refer to editor of this paper. Address F. F. ADAMS & CO., Erie, Pa.

FARMERS, USE ORCHILLA GUANO!

The BEST and CHEAPEST for ALL CROPS.

That ORCHILLA GUANO positively and permanently *enriches the land*; that it *increases the crop and improves the quality of the land*; and that it never fails to ensure a *luxuriant growth of grass* for succeeding years, are *facts* which 10,000 farmers, who are using it in the States of Maryland, Virginia, West Virginia and Pennsylvania are willing to testify.

This guano is found on the Orchilla Island, in the Carribean Sea, and comes to us direct by vessels, and all we do to it on arrival is to screen out the lumps and bag it.

We guarantee Orchilla to contain from 35 to 45 per cent. Bone Phosphate Lime.

And not only does it furnish, in high percentage, this most valuable of all fertilizing elements, but (unlike *acid Phosphate*, which has its sole merit in the small percentage of phosphoric acid which it contains), *Orchilla* furnishes, as shown by an exhaustive analysis by Prof. J. W. Mallett, of the University of Virginia, a number of other valuable fertilizing *substances*, comprising Magnesia, Chloride Sodium, Chloride Potassium, Sesqui Oxide Iron, Carbonate Lime, Sulphate Lime, and others, making up the entire one hundred parts; giving the farmer 2,000 *pounds of actual fertilizer in every ton he buys*; and in a combination, formed in nature's laboratory, that cannot be attained by any manipulation.

THE CHEMISTS ENDORSE IT.

Every cargo of Orchilla is analyzed before leaving the Island, that we may be sure that none is brought away below our guarantee; and this analysis is verified by another analysis after the arrival of the vessel in port. These analyses have always been confirmed by the State Chemists, and others who have analyzed it subsequently.

We refer to Doctors Gascoyne and Taylor, of Virginia; Dabney, of North Carolina; White, of Georgia, and Leibig, Lehman, Williams, Toney and Wilson, of Baltimore, who have all made separate analyses of Orchilla.

ORCHILLA IS LOW-PRICED—because we have left off the cost of manufacture.

ORCHILLA IS SUCCESSFUL—because it is NATURE'S own provision for her exhausted fields.

And by its wonderful clover-producing qualities, it converts the cheap and barren high lands, like those of Eastern and Southern Virginia, into soil as fruitful as the Valley of the Shenandoah. All who have ever used Orchilla say, that *as a grass grower it has no equal*.

ORCHILLA FOR WHEAT.

For years the farmers of Maryland and Virginia have been testing Orchilla for wheat, side by side with the high-priced ammoniated goods, and the constantly-increasing demand for *Orchilla* shows how well it has stood the test. Not only has it made as much wheat (for less money), but it has left the *land covered with grass and permanently improved*. Give it a trial.

Respectfully,

R. A. Wooldridge & Co., Importers

— BALTIMORE, M.D. —

TRAVERS SNEAD & CO. Importers' Agent, 1326 Cary St., Richmond, Va.

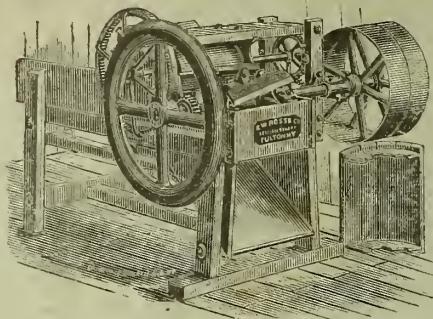
We sell Orchilla at a *low price*. Send for our **LITTLE BOOK**, giving testimonials of farmers who have used it for years.

nov 1y

—THE—

ROSS FODDER & ENSILAGE CUTTERS

HAVE RECEIVED over **240** MEDALS
AND HIGH AWARDS OF MERIT.



Successful at every competing trial at cutting. Will do more work with less power than any other Cutters made. **THIS WE GUARANTEE**, and warrant every one to give satisfaction. We furnish these Cutters with a capacity of **TEN TONS** per HOUR, down to fodder cutters of one man power. We can meet the varied

wants and tastes of all, in size, price and make.

CUT YOUR CORN-STALKS.—It has been thoroughly and practically demonstrated that by cutting corn-fodder, instead of feeding it whole, our machine can be actually paid for upon three to six acres of stalks, according to the size of the machine, while the manure is improved fifty per cent. Cattle will eat the cornstalks up clean when cut by our machine, because the feed is left soft and palatable.

WATT & GALL, Manuf'rs Agents,

jan 1y

RICHMOND, VA.

ASHLEY PHOSPHATE CO.

—:CHARLESTON, S. C.:—

FLOATS AND KAINIT MIXTURE of best materials, thoroughly mixed by machinery, containing Bone Phosphate, 25 to 30 per cent.; Sulph. Potash, 12 to 14 per cent.; besides Magnesia and Soda and Lime, &c.

SOLUBLE GUANO—	...	...	...	Highly Ammoniated.
DISSOLVED BONE—	...	...	...	Very High Grade.
ACID PHOSPHATE—	...	...	...	For Composting.
ASH ELEMENT—	...	...	...	For Cotton, Wheat, Peas, &c.

FLOATS—Phosphate Rock, reduced to an Impalpable Powder by the Duo Atomizer, of Highest Grade. **SAMPLE** sent on application.

SMALL-GRAIN SPECIFIC—Rich in Ammonia, Phosphoric Acid, Potash, Magnesia and Soda.

GENUINE LEOPOLD SHALL KAINIT.

The above **FERTILIZERS** are of very high grade, as shown by the *Official Reports* of North Carolina, South Carolina and Georgia.

For Terms, Hand-Books, Agricultural Primers, and good Articles on Floats, Peas and Ash Element, Kainit, &c., address the

ASHLEY PHOSPHATE COMPANY.

N. B.—Special inducements for Cash Orders. **Special Formulas** made carefully to order of best materials. [ja 1y]