

Southern Planter

A MONTHLY JOURNAL

DEVOTED TO

Practical and Progressive Agriculture, Horticulture,
Trucking, Live Stock and the Fireside.

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CONTENTS.

FARM MANAGEMENT:

Editorial—Work for the Month.....	553
" Farm-Yard Manure	556
" Grass Seeding	557
Turnip Raising	559
The Cheat or Chess Problem.....	560
Curing Forage Crops—Cheat.....	562
Johnson Grass	562
Bermuda Grass	562
Editorial—Leguminous Bacteria	562
1903 Tobacco Crop on the Home Stretch.....	563
Seeding Grass Only.....	563
Enquirer's Column (Detail Index, page 585) ..	563

LIVE STOCK AND DAIRY:

Meat Production in the South.....	575
Keeping Pure Bred Cattle in the South.....	576
Manor Hercules	577
What Constitutes a Perfect Berkshire?.....	577
Feeding Hogs	577

THE POULTRY YARD:

Killing Hawks	578
" in Chickens	578
" Proof Roosts	578
Killing Hawks	578

THE HORSE:

Notes	579
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Cook's Miss M B 7 04

TRUCKING, GARDEN AND ORCHARD:

Editorial—Work for the Month.....	569
Apple Diseases	569
The Present and Future of Strawberry Growing in North Carolina.....	570
Spraying Plums in Virginia.....	571
Virginia State Horticultural Society.....	574
Weevil in Beans and Peas.....	574
Grass Seed Mixture	574

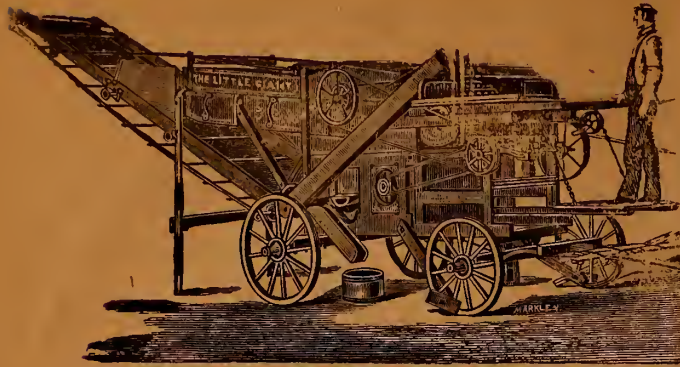
US:

Climatic Facts, Figures and Features Re- lating to the Middle Atlantic Seaboard....	581
No Hawks	581
Virginia Farms	582
Pigs on Rape	583
Virginia as a Home	583
The Poland China Hog.....	584
Combination Auction Sale	584
Government Whitewash	584

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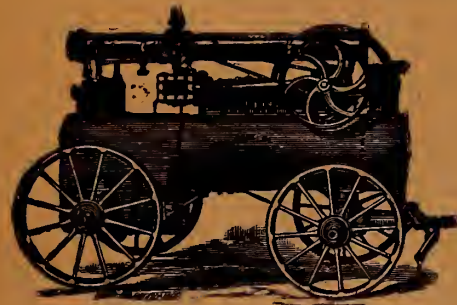
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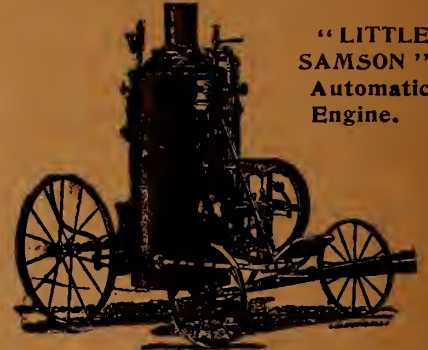
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Agriculture is the nursing mother of the Arts.--XENOPHON.
Tillage and pasturage are the two breasts of the State.--SULLY.

64th Year.

Richmond, September, 1903.

No. 9.

Farm Management.

WORK FOR THE MONTH.

The month of August up to this time (20th) has been throughout the South below the normal in temperature, and showery. This continuance of abnormally cool weather has prevented the crops making that headway which they so much needed to bring them to a normal condition, and, as a consequence, they are all late, and much depends on the weather during this month as to whether large areas will fully mature before frost. This condition applies to the whole country, and affects other sections more seriously than the South. Here, whilst the whole growing season has been cool, it has not been too cool for crops to grow, though not with their accustomed vigor. Grass and pasture lands have done the best, and their condition is in marked contrast with what is usual at this season. There is abundant feed for all stock, and they should go into winter in fine condition.

As predicted in our notes last month, the winter wheat harvest is turning out distinctly unfavorably. The average yield per acre is now placed by the Government returns at 12 bushels per acre, as against 13 last year, with a total crop of 410,000,000 bushels. The prospect of the spring wheat crop is also disappointing, the condition being on August 1st, 77, as against 89 on August 1, 1902, and a ten year average of 80. The total wheat crop of the country will undoubtedly be much below that of last year, and as prospects in Europe are not much better than our own, the indications are that wheat will be in demand at better prices than now prevail, though these are

now on the average about 10 cents a bushel higher than a year ago.

The average condition of the corn crop on August 1st was 78, as against 86 on August 1, 1902, and a ten years' average of 84. The only section of the country where there is promise of something near an average yield of this crop is the South. Here our highland crops are distinctly promising—in fact, much above the average. Lowland crops, however, are disappointing. The land has been too wet ever since spring, and the stands are uneven and the crops badly worked. It is comforting, however, to know that the average condition and prospect is better than elsewhere. Should we have a late fall much even of the late planted crop bids fair to make a good yield.

The oat crop of the country is a disappointing one, and will be much below that of a year ago.

Tobacco has made better progress than the cool weather would have led one to expect, and bids fair to make a much better yield than at one time seemed possible. The quality, however, does not appear likely to be of the highest. The bright crop is now being cut and cured in North Carolina and the southern parts of this State, and the dark crop only needs warm weather to make it mature and ripen.

Cotton is still very late, the weather never having been such as to permit of it making up for the time lost in the spring. It will altogether depend upon the lateness of the fall as to what the outcome of the

crop will be. Picking has commenced in the Gulf States, and somewhat further north, but is nowhere, except in the extreme South, general. There is complaint from many places of injury to the crop by cold, rain and weevil.

The peanut crop does not promise to be an average one, as the continued wetness of the land has prevented weeds and grass from being kept down in many sections, and these are smothering the plants.

The apple crop of Virginia still continues decidedly promising, and is likely to be one of the largest ever harvested in the State. In other States the condition is not so high as here, though the average for the whole country is a fair one. There appears likely to be a large crop for shipment, but the demand is likely to be great, as the fruit crop in England is practically a failure, and on the Continent (European) the crop is not large.

The preparation of the land for and the seeding of winter oats should receive immediate attention. As the result of many experiments made in different sections of the South, it has been fully demonstrated that if winter oats are to do their best they should be seeded in September, and preferably in the first half of the month. We would again emphasize what we said in our last month's issue as to the preparation of the seed bed. The deeper and better worked the seed bed, the greater the probability of a good yield. More depends on this than on the fertilizer used or the quantity applied. If the land is well prepared, oats will find and utilize the plant food in it. They have a capacity to seize and appropriate plant food in a tougher and more unavailable condition than any of the other cereals. This arises from their producing an acid in their growth which has a powerful solvent effect on the plant food of the soil. Because of this fact, however, they should not, as is too often the case, be expected to produce a profitable yield on the poorest land on the farm. They will do better there than any other cereal, but they will do still better on better land, and will pay to have some fertilizer or farm-yard manure given them. Nothing helps the crop more and protects it better from winter killing than a top dressing of farm-yard manure, even though this should be only light. Where the land is poor, 300 pounds of acid phosphate per acre should be applied before seeding. The deeper the soil is broken, so that the winter rains can soak into it, and the greater the chance of avoiding winter killing from frost. This is mainly caused by the water being held

in the top soil and there freezing and then blowing out the soil when the thaw comes. Let the seed be well covered. They are better drilled three or four inches deep than sown broadcast, but if sown should be well harrowed or cultivated in. As the oat is a cold climate crop seed from a locality further north is likely to give a better yield than from the immediate locality or from southern points. Whilst the average yield of the crop here is only about twenty bushels to the acre, there is no reason whatever why three times that yield should not be made. We know many who are doing this. If intended only to be used for a hay crop, which is largely the purpose for which oats are grown in the South, it will pay to make the crop a heavier one, as the feed produced is so valuable as fodder. We were speaking with a subscriber a few weeks ago on the subject of feeds for milk production, and he said that his experience was that he got better results from feeding sheaf oats than from even cow pea hay.

Let the work of preparing the land for the wheat crop have attention. The sooner it is plowed and the work of cultivation begins the better will be the chance for a good yield of grain. The average yield of the wheat crop in the South is not what it ought to be by a long way. The yield this year in this State and North and South Carolina is estimated at only about five bushels to the acre, whilst the average over a series of years is short of twelve bushels. Such yields as these cannot be grown profitably, and that they are not what ought to be made and can be made is certainly true. We know farmers who make, over a series of years, an average of 25 bushels to the acre, and many who make in a good year 35 or 40 bushels to the acre. The secret of these yields is not so much extra fertilizing or naturally very fertile land, but good and perfect preparation of the soil before seeding and seeding as early as is safe to avoid the fly. It should always be remembered that the wheat crop must be cultivated before it is seeded. In this respect it differs from the corn and other hoed crops. The most that can be done to help it forward after it has started to grow is to give it a harrowing in the spring, and even this is too often neglected. Hence the great importance of thoroughly plowing and working the land before seeding. A wheat seed bed should be firm in the subsurface, but still open enough to permit of the absorption of rain water and of the rising of the subsoil water, and with the surface three inches, fine and loose. Frequent use of the harrow and roller or plank drag will secure these conditions after the soil is once thoroughly and deeply plowed.

This will also ensure that the weed seeds in the soil shall have been destroyed by germinating and killing. Weeds and wheat never succeed well together. Let wheat alone occupy the land, it will easily utilize all the plant food and moisture without any help from a weed crop. A dressing of lime of from 25 to 50 bushels to the acre applied after the land is plowed and worked in during cultivation will be found a great help in producing the crop by rendering available the inert plant food, and especially the potash in the soil. Whilst wheat calls for all the elements of plant food in order to make successful growth, yet experiment have demonstrated that phosphoric acid is the controlling element, and it is therefore required in an available condition, and in abundance. A crop of 30 bushels to the acre, with the average weight of straw, calls for about 50 pounds of nitrogen, 25 pounds of phosphoric acid, and 25 pounds of potash. As crops rarely are able to utilize more than from 50 to 75 per cent. of the available plant food applied in a fertilizer, it will be seen how necessary it is if the best results are to be looked for to supply plant food liberally, unless the soil is already rich. Where a pea fallow or clover sod is turned down, these will supply nearly all the nitrogen needed, but the other elements must be supplied or be made available, if in the land, by the use of lime. In all heavy clay or loam lands in the South potash is generally in abundance for the needs of the wheat crop, but needs to be made available by lime. Phosphoric acid, however, must be supplied, and this can best be done by a mixture of acid phosphate and raw bone meal, say 200 pounds of acid phosphate and 150 pounds of raw bone meal to the acre. Where a pea fallow or clover sod is not turned down, then nitrogen should be supplied, and this can be best be done by supplementing that contained in the raw bone, with a top dressing of nitrate of soda in the spring after the crop has commenced to grow freely. Experiments have demonstrated that wheat accumulates most of the plant food needed for its successful growth during its early growth, and then utilizes this accumulated store during its later growth to perfect the ears and grain. This fact emphasizes the importance of having the seed bed in such a fine condition that the roots can lay hold of the plant food quickly when they first start to grow. If a pea fallow or clover sod is turned down this should be done very early, or the seed bed can never be got firm enough in the subsurface to ensure the best results. Wherever the pea crop is a heavy one, we would advise cutting it for hay, leaving a long stubble rather than turning it all under as a preparation for wheat. In experiments made at the Arkan-

sas Station, where cow peas, soy beans and beggar-weed were sown on light land, the yield of the following wheat crop was increased 56 per cent. The plowing down of the stubble of these crops gave better results than when the whole crop was plowed down immediately before sowing the wheat. Wheat grown continuously on the same land for three years, and each crop preceded by a crop of cow peas, gave an increased yield of 46 per cent., as compared with breaking the wheat stubble and not sowing cow peas. Wheat sown on a cow pea stubble and fertilized with 400 pounds of a complete fertilizer, gave an increased yield of 64 and 78 per cent. second year over soil treated in the usual way. The seeding of the crop should not commence until after there has been frost to obviate damage from fly. Meanwhile, put in all the time that can be spared from other work in making a good seed bed. As to the variety to be sown. This is usually best settled by selecting a variety that has become acclimated to the section, and given good results there. Of course, it is desirable to test new varieties of which good reports come from near by States and sections, but this should be done in a small and experimental way until it is seen what variety so tested is likely to be satisfactory. The result of testings at numerous stations go to show that there is practically no difference in the yield of bearded or smooth wheats. In some sections one does best; in others, the other. What is of more importance than the variety is that the seed sown shall be plump, heavy grain, and free from blighted, shrivelled or small grains, and from all weed seeds. It will almost invariably pay to reclean all seed grain. Soaking the seed in a solution of formalin, 1 pound to 25 gallons of water, will destroy all smut germs in either wheat or oats. Soak for twenty minutes, then dry before sowing. From one to one and one-half bushels of seed per acre is usually sufficient. This depends largely on the fertility of the land.

All grass seeding not already done should receive attention and be completed as early this month as possible. In our last issue and in this will be found articles dealing with the subject to which we refer our readers.

Continue the work of seeding crimson clover and hairy vetch, as advised in our August issue. The more land that can be put into these crops the greater the area that will be improved for other crops next year. Seed always with a mixture of wheat, oats or rye, and more or less pasture will be secured in winter and spring, besides the improvement of the land.

An abundance of these crops to graze or cut in the spring will help materially in reducing the cost of carrying stock at a time when dry feed often becomes scarce.

Rape may yet be seeded for fall and spring feeding. Sow 3 or 4 pounds of seed per acre broadcast, or 2 to 3 pounds in drills two feet apart. This makes an excellent pasture for hogs, sheep and young cattle. It should be allowed to grow up a foot high before turning stock on to it, and not be grazed too closely, and will then start out again and make good grazing in the spring.

Turnips may still be sowed, though it is getting too late for them now to make a heavy crop. They will, however, make some feed, and will cover the land. In our August issue will be found full instruction on this crop.

The work of harvesting and saving the various forage crops should receive attention as they mature. Do not allow them to stand too long and mature their seed. They make the best feed when cut in bloom or when the seed is just forming. Cow peas should be cut when the first pods are filled and turning yellow. Of course, if seed is the object, and not long feed, then they must stand until it is sufficiently matured to cure without shrivelling. In our August issue we wrote fully on this subject.

The work of filling the silo should be attended to. As soon as the ears are well filled and passing out of the milk state the crop should be cut and packed away. Cut into $\frac{3}{4}$ -inch lengths, or, better still, shred the stalks and much waste will be saved. When filling do not be in too great a hurry. Cut during the morning and fill into the silo in the afternoon, or cut one day and fill the next. This allows the silage to compact better and get up the necessary heat to ensure good, sweet silage. The silo will also hold more filled in this way than when the work is rushed all the time.

When the teams are not otherwise engaged keep them at work plowing land intended to be cropped next year. This is the time of the year when land may be ploughed deep and some of the subsoil be brought to the surface. This will be weathered during the winter months, and its plant food brought into an available condition for supporting and feeding crops.

Have all stables, sheds and pens cleaned out, and give all buildings a good cleaning inside and out, and use lime wash freely inside and out, thus get rid of all vermin and foul smells. Lime wash is a powerful cleanser and purifier, and it is so cheap that every one can afford to use it freely. In this issue we publish again the receipt for making Government whitewash, which is almost as durable as paint, and will preserve the buildings to which it is applied. If we could only persuade Southern farmers to apply some paint to their houses and whitewash to their buildings they would add thousands of dollars to the value of their places in the eyes of purchasers, besides saving them from rot and decay. Before painting or whitewashing make necessary repairs. A few dollars spent in lumber and nails and a few hours labor will save hundreds of dollars, and add to the comfort of man and beast. Make home attractive and the children will not want to leave it.

FARM-YARD MANURE.

Most farmers think that unless they are able to put a heavy dressing of farm-yard manure on to land that it is of little use, and because they are not able to do this on a large part of the farm, that the quantity of farm-yard manure made on the ordinary farm is practically of little help in maintaining the fertility of the farm. This, as we have several times pointed out, is an entirely erroneous view. The value of farm-yard manure as a promoter of fertility does not lie wholly in the amount of nitrogen, phosphoric acid and potash which is contained in it, nor even in the humus-making material that is present in the form of vegetable matter. Whilst these are each and all of them valuable factors in the manure, there is one other factor which probably is equally as valuable as the whole of the others combined, and which is usually entirely overlooked. This factor is the power possessed by even a small quantity of farm-yard manure to introduce into the land to which it is applied the microbes which set up the fermentative action of the soil and give to it the character of a live soil as distinguished from one in which this action is absent and which is practically dead and unresponsive to cultivation or the application of plant food in the form of mineral fertilizers. Every one who has been observant will have noticed that a piece of land to which even only a very slight coating of farm-yard manure has been applied will show the effect for a number of years much longer than would a similar piece of land to

which a much larger application of plant food in the form of commercial fertilizer had been applied. This is the result of the microbic action in the soil, induced by the farm-yard manure, and not of the plant food in the manure. These microbes dissolve and make available the inert plant food in the soil and this the vegetation on the land appropriates and thus grows with greater luxuriance. If you have only manure sufficient to give a light coating use it. It will often give a greater proportionate immediate return in the crop than will a heavy dressing. Of course, the time during which this return will continue will be less than would be that given by a heavier dressing, but the improvement in the land will be started earlier than if it waited for the heavier application, and this is what we most need in the South. To start the ball to rolling is often the most difficult part of the problem of improvement. Save and utilize every bit of manure. It is the true foundation of agricultural advancement to be supplemented with the mineral fertilizers, phosphoric acid and potash wherever possible. Keep a bag of acid phosphate in the barn and whenever you clean out the stables spread a light coating of this on the manure heap. It will prevent over-heating of the pile and consequent loss of nitrogen, and will add to the value of the manure by supplying the deficiency of phosphoric acid, characteristic of farm-yard manure. Kamit may be used in like manner to supply the deficiency in potash and preserve the manure from loss.

GRASS SEEDING.

In our last issue we wrote somewhat fully on this subject, emphasizing the importance of seeding grass alone if the best results were to be looked for. We have received the following letter from a subscriber commenting on this article and our advice:

Editor Southern Planter:

As you truly say in your August *PLANTER*, you urge in season and out of season, the sowing of grass, and, furthermore, the sowing of grass without small grain. Of grass, there cannot be too much on a farm. As to the manner of getting it, permit me to give you our experience in following your advice:

We have followed it twice. This year we took the best land on the farm, prepared it very carefully, and sowed it heavily with a mixture of grasses. The weeds came up in such abundance that we have had to cut them down and the grass is quite spindling. On adjoining land, not quite so good, prepared in exactly the same manner, but sowed to spring oats

and grass, the grass is now considerably better than where the grass was sown alone; besides which, we have cut a fair lot of oats off the land—the weeds bothered us practically not at all.

As I have said, this is our second experience. It seems to me that one fatal objection to sowing grass alone—for the average farmer—is that it makes one extra ploughing. With the regular rotation—which, after trying all the book methods, we have come back to as far the best—one ploughing does for corn, oats or wheat and two crops of grass. On paper it is a mighty simple thing to plough the ground one extra time, but in economical farming it is a very different matter.

All the best farmers in Albemarle that I know put their grass in with small grain. I have tried the *PLANTER* method, but I shall not try it again.

KENNETH BROWN.

August 4, 1903.

This seems to call upon us to vindicate the position we take on this subject of grass seeding, which is one of the most vitally important for all farmers in the South. . . On our progress as a grass-growing section of the country mainly depends our future prosperity. We entirely concur in the following statement, made recently by a well-known writer and practical farmer:

“A study of the needs of soils in respect to fertility shows that heavy sods rotting in the ground are the factor most to be desired. In various ways they secure to the land the power to produce well when cropped. No one matter in American agriculture is of greater importance than improvement in the growth of grass and clover sods, and if the needed gain in this direction were secured our agricultural prosperity would not only be far greater, but it would be on a safer basis. Much land is drawing chiefly upon its stock of available fertility that has been accumulated for centuries, and much other land has already passed the point of profitable cropping. The ability to provide for itself a heavy sod is the true measure of value for the major part of our farming area. Consideration of the best methods of getting such growth is the most important matter before the farming public, because it vitally affects more people and more land than any other matter. Many who are really the most concerned do not realize the truth, the evidence being found in the carelessness shown in new seedings and in their absence, and in the increasing inability of much land to produce surely and well because the humus is exhausted.”

At the outset let us say that our advice to sow grass alone is based largely on our own personal experience in the matter. We have fully tested many times all the different ways of seeding grass, and un-

hesitatingly say that the finest stands we have ever made and the best crops we ever grew were from grass seeded alone. We are, however, not singular in this respect, for we have the support of many of the leading experimenters of this and other countries as to this method of seeding. At the Wisconsin Experiment Station and also at the New Jersey Station the results reached were conclusively in favor of seeding grass alone. Probably, however, the most conclusive testimony we can give in our support will be that of Mr. Clark, of Higganum, Conn., the most successful grass and hay producer in this, and probably any other, country. For many years he has carried on a series of experiments to demonstrate the possibility of producing heavy yields of hay on a piece of naturally poor, rocky land. We have at various times published reports of the results reached. In our issue for September, 1902, we published his report on the crop of that year. He therein stated that the total yield from 14 $\frac{1}{2}$ acres was 128,874 pounds of well cured hay. The exact cost per ton of the dry hay, including fertilizer (\$208 worth applied), cutting, curing and putting in the barn was \$4.95. The total yield of 7 acres of new seeded ground was 49,677 pounds, or an average of 7,778 pounds per acre, which is 212 pounds less than four tons to the acre nine months from the day of seeding, and that, under very unfavorable circumstances. This, he adds, is conclusive evidence to me that if we want to grow grass we had better sow grass seed, and if wheat, rye or other grain, or, in fact, any other crop, we had better sow them by themselves to achieve success, for it is certain *that a proper grass stand cannot be obtained with any other crop.* My grass crop this year confirms more fully, if possible, three things: First, *that grass should always be sown by itself.* Second, that timothy and red top in equal parts are correct proportions; and, third, that intense cultivation is absolutely necessary for success. We have just received Mr. Clark's report on his first hay crop for this year. In this he says: "Last year the first crop was 64 tons, 874 pounds of dry hay. This year the first crop, 55 tons, 729 pounds—nine tons less than last year, mainly due to three causes. First, lack of intense cultivation before seeding of six acres in September, 1901, on account of cloud-burst, which washed almost all the cultivated soil off the field ten days before seeding. Second, a two-months' drought in spring. Third, the fertilizer was spread six weeks without rain. These three cut the product down so that the average yield was but 7,840 pounds, a little less than four

tons per acre. The seven-eighth acre seeded now fourteen years, cutting twenty-six first and second crops before this year, a total production of twenty-seven crops; one seeding fourteen years, 111 tons, with the second crop now growing. Last year the two crops were eight and a half tons. This year they will exceed nine tons. The average per acre this year on this field, first crop, is 7 tons, 176 pounds, and on the five-eighths acre adjoining field, 7 tons, 80 pounds. Many suppose that six tons of hay or more to the acre means tall, coarse grass, but it is exactly the reverse. It means a dense growth of fine grass, 500 to 600 spears to the square foot, 40 to 45 inches in height, and will make six to seven tons to the acre. Every six inches in height of my grass containing 500 to 600 spears to the square foot will produce a ton of dry hay to the acre, and it will be as fine as silk. Intense cultivation and care are the only things that will make big crops of hay." We think we have now said enough to justify the position we have taken as to seeding grass alone. We will, however, add the testimony of a neighbor of our correspondent just received. "I seeded six acres last fall in mixed grasses *without any grain crop*, using about 500 pounds per acre of a mixture of equal parts of raw bone meal, 16 per cent. South Carolina bone (acid phosphate) and German Kainit. I averaged fully two and a half tons of hay per acre, cutting this about July 5th and 6th—certainly worth twice as much as any grain crop." This letter would seem to show that not all the good farmers in Albemarle sow grass seed with a grain crop, and when more of them realize what is possible when seeded alone still fewer will be found to follow the old practice. The mistake our correspondent made was in not following our advice fully. He seeded not alone, but with a *weed crop*, and we have repeatedly stated that grass, least of any crop, can successfully compete with the weeds. Weeds are an indigenous growth, and exemplify the law of the survival of the fittest under natural conditions. It is useless to expect an introduced crop to compete successfully with them, especially when the introduced crop is one of so small and tender a growth as grass seeds when first starting. The weeds must be eradicated before seeding grass or they will sooner or later eradicate the grass. And now one word in reply to the last paragraph but one in the letter: "It seems to me that one fatal objection to sowing grass alone for the average farmer is that it makes one extra ploughing. With the regular rotation—which, after trying all the book methods, we have come back to as far the

best—one ploughing does for corn, oats or wheat and two crops of grass. On paper it is a mighty simple thing to plough the ground one extra time, but in economical farming it is a very different matter." One of the great causes of the lack of productiveness on southern farms is that farmers will not plough and cultivate the land sufficiently. In England no farmer expects to produce a paying crop without ploughing always once, and more frequently twice, before seeding, in addition to working the soil repeatedly with the harrow and cultivator. We have frequently ploughed the land three times before getting such a seed-bed as we desired. Experiments made in this country have demonstrated that the same good results are here obtained by repeated ploughing and cultivation before seeding. It is the falsest economy to save on the cost of ploughing and cultivating. The comment of the wise man of old on charity is most appropriate to this work: "There is that scattereth and yet increaseth, and there is that withholdeth more than is meet, and it tendeth to poverty." The cost of ploughing an acre of land is so small that even the production of an extra bushel of wheat to the acre will almost pay for it, and we have known such an extra ploughing, with the necessary working to follow, to increase the crop ten bushels to the acre. Mr. Clark, in fitting his land to produce the great yields of hay we have mentioned, says that he moves every particle of the soil to the depth of six or eight inches at least thirty times, in this way reducing the whole body of the soil to the finest tilth and making every particle of the soil permeable by the finest roots and every bit of the plant food existing therein available for the support of the crop. To endeavor to raise four crops by one ploughing is "saving at the spigot and spending at the bung" with a vengeance. Until there is a disposition to plough four times for one crop, rather than once for four crops, we shall never see southern lands produce the crops they are capable of doing and farmers as prosperous as they ought to be.

TURNIP RAISING.

Editor Southern Planter:

When practical, a clover or cow pea sod should precede turnips. Said crops, when seeded, should be liberally fertilized with potash and phosphoric acid, thus insuring a rank growth. At maturity entire crop should be turned down and so remain until it decomposes. Turning the roots and stubble of the clover or cow peas, as the case may be, will

not be sufficient to supply the nitrogen called for by turnips and to improve the land. They contain only about one-fifth of the nutrient properties of the plants, and consequently, where the improvement of the soil is the object sought, they fall short of the mark.

The preparation of the soil should be commenced a year or more in advance. The work would not then be crowded; everything would come in at the proper time. The clover or cow peas could be turned down after the first frost and so remain until early spring. The ground could then be planted to onions or potatoes; either crop would come off in ample time for turnips to follow.

(Wheat, oats, rye or vetches should be sown to prevent loss of nitrogen by leaching during winter—*Ed.*)

The New Jersey Experiment Station claims that an acre of crimson clover will contain \$30 worth of nitrogen. This nitrogen is drawn from the air, being virtually grown, and is, therefore, a clear gain. If we place the value of the nitrogen, that can be practically drawn from the air by an acre of clover or cow peas, at only \$15, this quantity will prove more than ample for the two succeeding crops without any direct application whatever. An ordinary application of potash and phosphoric acid may well precede the seeding of the turnips.

If potatoes follow the legume crop they should be dug soon after maturity and the tops permitted to cure about a week. Then often deep furrows a suitable distance apart for the drills, say, three feet, place the potato tops therein and ridge thereon. Then level the ridges and drill the turnip seed in the usual way.

I have often urged farmers to try at least their truck patches on the above plan. From two to three times the usual yield could easily be grown and the soil would also grow richer and richer.

But as a year or more is necessary for the above preparation, only a few farmers, comparatively speaking, are in shape to test the plan at the approaching seeding. I will, therefore, give directions, based on the old plan, that will make a further draw on the soil for humus (decayed vegetable matter), which is already generally deficient in this necessary element.

The soil should be well prepared. Then lay off in rows about three feet apart. Apply in the rows from 400 to 600 pounds per acre of a fertilizer containing 2 per cent. nitrogen, 5 per cent. actual potash and 7 per cent. available phosphoric acid.

The following materials may be mixed and used: Fifty to seventy-five pounds nitrate of soda, 40 to 60 pounds muriate of potash and 325 to 485 pounds acid phosphate. From 160 to 240 pounds of kainit may be used in lieu of the muriate of potash. The fertilizer should be well mixed with the soil, preferably a few weeks before seeding, but if there be not a sufficiency of time, a few days will answer. With the plow throw low ridges on the rows, flatten the ridges with a light harrow or roller, and sow the turnip seed with a drill and cover by rolling with a light roller.

The flat-rooted purple top varieties make the quickest growth, but the globe varieties root deeper, and where they are to remain in the ground all winter, are generally preferred. But for winter purposes it is usually best to properly store all varieties.

Rutabagas are more nutritious and are consequently better for stock purposes. If a rain fall soon after seeding, a rake should be passed lengthwise the drills.

Soon after the plants appear cultivation should be commenced and repeated several times at short intervals. When the plants attain three leaves thin to single plants, six to eight inches apart.

Moore county, N. C.

BRYAN TYSON.

THE CHEAT OR CHESSE PROBLEM.

The communications we have published on this subject have evidently aroused much interest, as we are in receipt of letters almost by every mail giving experience on the matter and theories accounting for the same. We select the following from the latest of these, and with this must close the discussion. Professor Massey, in his communication, so fully disposes of the absurdity of the supposed change as to leave in our opinion nothing further usefully to be said.—ED.

Editor Southern Planter:

I have seen the discussions in the last two numbers of the *PLANTER* in regard to oats and wheat turning to cheat. I will give you my experience and observations. I have always believed that the change took place and will tell you of my experience with winter oats. A farmer in this county raised a crop of forty bushels to the acre and they weighed fifty pounds to the measured bushel. My brother and I thought we would try them. I went to his place, about twenty miles from here, got fifteen bushels and we sowed them. They came up and looked fine until in February there came a cold snap and all the top

growth turned yellow and died. Then there came a second growth from the same stools and we had a finer prospect than the first, for they seemed to have spread all over the ground; but when headed out I do not think my brother had five heads of oats in ten bushels of seeding. There were a few more in mine. We had them threshed and ground for feed. They weighed twenty-five pounds to the bushel. There was no cheat in the oats nor in the land before we sowed, nor has there been since. When that freeze came it killed the crown, but did not kill the roots, so they sent up a degenerated set of stalks, and, of course, the grain was the same as the stalks. When wheat is grazed by fowls the seed is mostly cheat. My opinion is, that the growth of wheat being tender it is killed and the roots send up another growth that is tougher and can stand more than the first.

GEORGE W. JOHNSON.

Prince William county, Va.

Editor Southern Planter:

I am not seeking any controversy on the chess question, but wish merely to give facts in my own experience, to show how easily one may fool himself.

In July, 1902, I ploughed three acres of wheat stubble and had it seeded to winter oats and clover September 15th, intending to use as pasture the following year. In 1903 the clover made such a fine growth that I concluded to mow it for hay, as the oats appeared to be nearly all gone. The oats had been purchased from a prominent seed house of Baltimore, but as I had a fair growth of rye I presumed they were somewhat mixed. I never saw the seed. The rye made a fine growth, followed by what proved to be chess. The rye headed and so did the chess, while the oats were only three or four inches high. I was disgusted, and should have turned in my cows, but I had no fence. If I had mowed then I should have had nothing but chess and rye, but as I did not want any such stuff as hay I let it alone until I could put a wire fence around the lot. In the meantime the oats began to grow and headed out at about thirty inches high, hiding the chess completely. When the oats were ready I cut for hay and got a nice lot, although mixed with over-ripe chess and rye. The wheat seeded on that lot was mixed with chess, and I had tried to clean it, but only removed a part, and the wheat crop had considerable chess seed in it.

Judging from appearances I should have been ready to affirm that the oats had turned to rye and chess if I had cut them early, and later that the stubble grew oats as a second crop. That appears to be what Mr. J. H. Ellis claims to have been the case in his article.

GEORGE H. SMITH.

Northumberland county, Va.

Editor Southern Planter:

You are certainly in for it, since the cheat transformationists have gotten hold of you. But seriously, what is the use of taking up the space of the *PLANTER* to try to convince the believers in this superstition that such a transformation is impossible. It comes up perennially in all the farm papers, and the men who have never made any accurate study of plant life jump to conclusions not warranted by the facts and are perfectly convinced that they are right, and no amount of argument will make them think otherwise. This old nonsense about wheat and oats turning to cheat, planting by the phase of the moon or the signs of the Zodaic, are persistent survivals of old superstitions and will continue so long as men are not educated in an accurate study of life in plants and animals. I have long since ceased to try to argue the transmutation people out of the notion, but now and then I am tempted to hit some one of these gentlemen. Mr. Ellis's letter, in your last number, is rather amusing. His neighbor sowed his winter oats in the spring to get them clear of weeds, cheat included, we suppose. Now, if oats will change to cheat, why do they not do so when sown in the spring? Simply because they do not get killed and let the hardy cheat take their place. Then Mr. Brockman sowed his clean seed in the fall and had a fine crop of cheat hay, and after the hay was cut a crop of oats. Where were the oats all the time that the cheat was making hay, and why did not they turn to cheat, too? It is very evident that the land was full of cheat seed—and that is all that was proven by that experiment.

Mr. Wright says that cheat is a hybrid. How is he so sure of that. *Bromus secalinus* is as well marked a species as any grass in existence. Now, it is perfectly easy to test the matter if the transmutation folks want to be convinced. Sow some absolutely clean oats—good, large and plump grains, for there are many who would mistake a seed of cheat for a shrivelled oat grain. Sow these in soil that has been perfectly sterilized from seeds of all sorts by heat. Now, abuse these plants in any way you please, by excess of water and excess of cold, and while they may be killed, they will never make a cheat plant. I will give \$5 for every cheat plant produced from a wheat or oat seed. Some years ago a farmer in Western North Carolina wrote to me that he had the positive proof that wheat would turn to cheat, and wanted to know if there was not a premium offered for it. I wrote that there was no premium and that I knew that he was mistaken. A lawyer friend in the same neighborhood wrote to me that he thought I had been rather curt with my correspondent, and that he knew that he had the positive proof that wheat turned to cheat. I asked him

to send the proof. Soon after that a package came to me, and on opening it I found a large and healthy plant of cheat grass with decayed wheat grains attached to the tips of the rootlets. I wrote to my lawyer friend that if he did not study evidence closer than that in court he would get badly left often, for the sample he offered as proof that wheat turned to cheat was, on the contrary, positive evidence that it does not. The roots of the cheat had simply found the decaying wheat grains in the soil and were feeding on them. Had the cheat plant grown from the wheat the grains would not have been at the feeding tips, but right up where the roots started from. It is just such evidence as this that convinces the untrained observer that a thing is a fact when it is an utter impossibility. If cheat is a hybrid, what are its parents? It takes more than one parent to make a hybrid, and, as a rule, true hybrids are sterile and fail to reproduce from seed. Crossing of plants takes place through the flowers, and not by any transmutation in the soil. If you sow clean seed in land that has not cheat seed in it, you will never find a cheat plant in your wheat or oats. I had a spot of wheat frozen down last spring after growth began to get tender. Now, said a cheat man, you will have cheat when that spot starts again. No, said I, if the wheat is not entirely killed it will grow up again, and if killed there will be no cheat, for there is no cheat in this soil and none was sown last fall. It sprouted from the roots and was clean and pure at harvest, and not a sign of cheat. Now I am satisfied that it is perfectly useless for you or me, Mr. Editor, to try to convince these gentlemen of their error, and I shall not waste any more time with it.

W. F. MASSEY.

Editor Southern Planter:

For several years I have thought like several of your correspondents in your August issue—"that oats turned to cheat." I am now satisfied that all were mistaken. My neighbor, Mr. T. B. Wright, who, I see, has sent you a head of chess, asking what it was, had a field sown with winter gray oats. Some time during the month of May I said to him: Why don't you cut that cheat down, it will make hay, and if you let it get too ripe the stalks are so hard it will be worthless. He replied: I have a pretty fair crop of oats over there; they don't show yet, but they are in there. And he was right. I passed the place every day, and in the course of a few weeks the oats outgrew the cheat and he made a fine crop. His explanation was that the cheat and oats were sown together. The seed of the cheat being smaller, are not noticeable in the oats at the time of sowing, but they are there. My own experience was similar to his. I had a field sown with winter oats

and clover for my hogs. There looked to be so few oats that I turned my hogs in sooner than I intended. They ate the clover for the first ten days, and then, as in the case of Mr. Wright, the oats began to show up. I noticed last year that some farmer in Albemarle had cut a crop of cheat which was succeeded by a crop of oats. I could not understand it at the time. But the cheat being earlier was cut, and the oats being there too had time to head out and make a crop. I note, too, one of your correspondents notes a similar case. What do you think of my explanation?

C. F. DAY.

Isle of Wight county, Va.

This is the true explanation of all these cheat stories.—ED.

CURING FORAGE CROPS—CHEAT.

Editor Southern Planter:

J. P. McDowell, of Halifax county, Va., asks "How to cure peavines." I once cured a heavy crop of sorghum hay by putting ventilators in each stack. Make ventilators by placing three rails together at top, set the bottom ends about three feet apart; nail a few strips on each side to hold it together. This makes the ventilator. Now give access to the air from the outside by laying two rails side by side about a foot apart. Lay two or three small pieces of timber on these two rails; then lay another rail on top. Let this air shaft extend from the center of the ventilators to the outside of the stack. Put one of these air chambers on each side of the site of the stack. Build the stack clear around and over the top of the ventilator.

You advise "Subscriber" in July PLANTER that neither oats nor wheat, nor any grain, will turn to cheat. But if you will sow gray winter oats successively for a few years, in the fall of the year, you will have a fine crop of cheat. This is a well established fact here in Southwest Virginia, where they are largely raised. It is well known here that this evil can be averted by sowing the crop once in every few years in the spring of the year, and thus renew the seed. I know this is contrary to the books and science, but it is a fact that any farmer can demonstrate for himself.

H. B. ROBERTS.

Washington county, Va.

JOHNSON GRASS.

A writer in the *Breeders' Gazette* suggests that hairy vetch seeded in Johnson grass would greatly improve the quality of the hay, and also make the

field capable of yielding much pasturage during the winter and spring months. The stalks of Johnson grass would hold up the vetch during the summer and add largely to the yield of hay, whilst it would each year reseed itself, and thus keep up the crop. As the vetch grows all winter and makes excellent spring grazing before Johnson grass is ready for stock it would materially lengthen the period when grazing would be practicable.

BERMUDA GRASS.

Editor Southern Planter:

I read on page 504 of your valuable journal an inquiry about setting a field in Bermuda grass and seeding with wheat at the same time. I live in Central Arkansas, and am familiar with the agricultural interests of the State. Bermuda grass is becoming quite popular in this region of country for both grazing and haying purposes. To do its best growing this grass requires hot sunshine. My experience and observation teaches me that every farmer would do well to observe the rule that one crop at a time on the same field is a sound principle to go on, and therefore I would not attempt to sow wheat with Bermuda. The best plan to set a field in Bermuda grass is to thoroughly prepare the soil by plowing deep and pulverizing perfectly. If to be propagated from roots (which is best and cheapest here), chop the roots, or separate into small bunches, start your turning plow on the ready prepared ground, as if breaking broadcast, then drop a small portion of the roots in the furrow about 18 inches apart. The next furrow covers it. Follow this plan over the field to be set. When the plowing and planting is done in this way harrow lightly to smooth the surface. Do this in February or March. In three months you will have a sod that you cannot graze out. We consider one acre of Bermuda sod worth one hundred dollars in gold. It means fat, healthy, vigorous stock. Remember, that this is a fast age, and things, to insure success, must be done well, so that they will bring the quickest returns.

C. H. GREGORY.

Arkansas.

LEGUMINOUS BACTERIA.

We hear that the Department of Agriculture at Washington has succeeded in cultivating the bacteria necessary to the successful growth of the leguminous crops, and that they will shortly be prepared to supply the same to farmers for inoculating the soil.

Those who contemplate growing alfalfa should apply to the Department for the alfalfa bacteria, and follow the instructions for its use before seeding the land.

1903 TOBACCO CROP ON THE HOME STRETCH.

Ninety to one hundred days is usually the life of the tobacco plant on the hill or in the field. Planted in May or June, it is now on the home stretch. We advise curing sun or air cured a red color. Late cuttings are apt to cure dark green. To prevent this cooping or bulking until yellowed before hanging is advised. Beware of mould. To prevent this, air-tight wood stoves, with heat enough to create a circulation of air during soft, hot weather should be used. Tobacco intended for shipment in the leaf for export for Austria, Italy, etc., should be cured red or light brown color, fired with open fires. For English strips cure a dark brown color, with open fires. Don't forget that curing and handling is the biggest half to be done.

L. B. VAUGHAN & Co.

Richmond, Va.

SEEDING GRASS ONLY.

Editor Southern Planter:

I was induced by your perpetual drilling machine—the best farmer's paper in the South—to sow a piece of north land last September, early part, to timothy, clover and orchard grass, without any grain; tried to get other grass, but could secure at the time only the three kinds. This piece of north land had never done me any good in the effort to get a stand of grass and crop of wheat the same season; both would always freeze out. I placed the orchard grass seed in with fertilizer (200 pounds S. C. Bone to the acre), and sowed a peck of timothy and peck of clover through seed sower, and two bushels orchard grass seed, to the acre. Results: a good crop of hay the following summer, instead of the old experience of neither wheat nor grass. I cut the hay about the first of this month, and now that north bank looks better than any meadow land. I thank you for drilling me until I caught the right step.

THOMAS S. WHITE.

Rockbridge Co., Va.

The best means for destroying Cabbage worms is air-slaked lime and common fine salt. Mix three-fourths air-slaked lime and one-fourth salt. Sprinkle this mixture over the heads as soon as worms appear.

ENQUIRERS' COLUMN.

Enquiries should be sent to the office of *The Southern Planter*, Richmond, Va., not later than the 15th of the month for replies to appear in the next month's issue.

Hogs Ailing.

I have eighteen Poland China hogs that have knots the size of peas, or larger, all over their bodies. Some of them seem as well as usual otherwise, and others are real sick, with but little appetite and lay around in the shade. The eyes of these are closed and very sore, lids much swollen and full of knots that look like pus and scabs; when scraped off the flesh beneath is white and raw and bleeds. They are in a pasture, part woods and part apple orchard, with a fine stand of orchard grass and clover. Have fed them no grain since spring. They are in fair order and seemed in good condition until thus affected. They have lice on them. Their watering place is a small spring where the water bubbles out of the surface of the field and they frequently make a wallowing hole of it.

Please tell me what the disease is and what to do for it.

APPRECIATIVE SUBSCRIBER.

Amherst county, Va.

The hogs are probably suffering from what is known in some places as "measles," an eruptive disease like measles in the human race. What they need is a laxative, sloppy food, in which mix a spoonful of flowers of sulphur for each hog three or four times a week. If constipated, give them in the slop a half pint of linseed oil for each hog. The feeding of the sulphur will most likely cause the lice to drop off, as it has a powerful action on the pores of the skin, which is offensive to lice. If the lice do not drop off, a little kerosene oil rubbed or poured on the backs of the hogs will soon get rid of them.—ED.

Cow Peas and Weevil—Pollenizer for Strawberry—Crimson Clover Seed.

1. Some time ago I read in an old farm paper that by planting cow peas after July 1st the peas from that crop would not be infested with weevil. Will you please tell me if it is so?

2. Is the Jessie strawberry early enough to fertilize the Warfield?

3. What would be a fair yield of crimson clover seed to acre?

J. D. GITCHELL.

Albemarle county, Va.

1. We believe weevil will infest cow-pea seed whenever the crop is sown as if sown in time to mature the seed the weevil moth will be laying its eggs during the period of growth and maturity, and the plants will become infested.

2. The Jessie is one of the earliest blooming strawberries known, and will fertilize the Warfield.

3. Crimson clover will yield anywhere from ten to twenty-five bushels of seed to the acre, according to the crop and the season for pollenization.—Ed.

Sowing Clover with Wheat.

I have about twenty acres (partly low ground) that is a stiff sand or a mixture with clay, with a good clay subsoil that I wish to sow in wheat this fall. I have been thinking of sowing clover with the wheat for a hay crop after the wheat is cut off. Could I do this? If so, how much clover to the acre and what variety? Do you think I could sow a crop with the wheat that would do as well as the clover?

Moore county, N. C. GEORGE E. BROWDER.

Yes. You can sow red clover with the wheat, but our advice, often given, is to sow grass and clover without a grain crop if you want certainly to succeed in getting a stand of the clover or grass. Of course, clover sown with wheat will frequently succeed in making a stand, but this is very often killed out by the sun when the wheat is cut off. If a strong growth is made and the wheat is thin, the clover may resist the heat and make a good crop. You can sow no other crop with the wheat. Sow about ten pounds of red clover seed per acre.—Ed.

Sick Turkeys.

I shall be so glad if you will give me, through the columns of September PLANTER a remedy for worms in turkeys. The droppings of my grown turkeys are filled with live, short (from one-eighth to one-quarter inch long) white worms. And out of a flock of more than a hundred *young* turkeys I have but forty-five left. They get droopy and sleepy, their heads turn very dark and their droppings are frequent and yellow. Some die in a short time, while others linger one and two weeks, becoming very weak and emaciated.

I killed and cut open three of them. All their viscera seemed in a normal condition, except the gall on the liver, which was filled with a clear white—instead of green—fluid. It was clear, like water. The small intestines were literally full of very long, flat, jointed white worms. Both young and old have several times expelled these worms during the night while on their roosts. This caused me to examine particularly for them. They seem, many of them, to be a yard, and even three yards, long. Some of the sick ones, though so emaciated and weak, have fine appetites.

I examined the blind fork of intestines for symptoms of black-head, but so far as my judgment goes

it was normal, though perhaps I am not experienced enough to judge.

The turkeys have free range of a large farm upon which wheat, oats, tobacco and red clover are raised; have grit in abundance and pure running water; and, I think, are free from vermin, at least I dust them with Instant Louse Killer and sprayed their house with a mixture of whitewash, kerosene and carbolic acid. Have used every cholera remedy I know, but still they die.

I shall be so glad of some remedy or preventative of black-head, cholera and worms from you or any of your readers. Even should my whole flock be dead before you can answer this it may help some one else and help me another year. My turkeys are thoroughbred Bronze from eggs of prize-winning hens and gobblers of an unusually large and healthy strain of this breed. Upto three weeks ago they were hearty and growing rapidly; are 12 and 14 weeks old—an age that is usually considered safe. I have regularly given them Hess' Poultry Panacea.

Amherst Co., Va.

ANXIETY.

We regret to say that we cannot give you any definite advice as to the disease affecting your turkeys. We can find nothing to help us in our books, and although we have had long practical experience in the raising of turkeys we have never had any such trouble. We believe the worms are at the root of the trouble and should use means to get rid of these. Amongst the vermifuges useful for this purpose are male fern and areca nut, which you can get from the drugstores; also turpentine. We would mix some turpentine in soft food and give each turkey a good dose in the shape of a big pill. If they will not eat it, let them have empty crops when this is fed and give no other food for twelve hours. The worms reduce the vitality of the birds and they die from weakness, we think.—Ed.

Unhealthy Cattle—"Hollow Tail."

I wish to know how to treat unhealthy cattle. I have a lot of young cattle which do not thrive, although they run in a good grass pasture every day and are penned in stalls at night. The person who attends to the stock thinks the cattle are afflicted with what he calls the "hollow tail." Now, if there really is any such disease I would be pleased to know what to do for it.

CLIFTON WARD.

Sampson county, N. C.

It is impossible for us to tell you what to give your cattle without something more definite as to the nature of the disease from which they are suffering. It is absolutely certain that they are not suffering from "hollow tail," for there is no such disease. Neither 'hollow tail' nor "hollow horn" ever make

cattle sick or are known to any veterinarian as diseases affecting stock. They exist only in the imagination of ignorant people, who have no knowledge of the anatomy of a cow or of the diseases affecting stock. Possibly your stock, if you are in a tick section, are suffering from a mild attack of the tick or Texas fever; but this is only a supposition, as we have nothing before us to warrant the statement, beyond the fact that you say they are young cattle and are all affected. All young cattle in a tick section suffer some time before they are 2 years old from a mild form of tick or Texas fever, and thereby acquire a partial immunity from the severe form of the disease. If this were not so we should have no cattle left in those sections. Those attacked with the disease when older nearly all die within a few days. If farmers would only follow the advice we have so often given as to ridding their farms of ticks none of this loss need be incurred. Wherever there are ticks (the Texas-fever tick) there will be Texas fever and loss. Where there are no ticks there is no fever.—Ed.

Cassava.

I enclose clipping from a recent *Saturday Evening Post* relative to the "cassava" or tapioca plant. I would be glad if you would tell me something more definite about this as a suitable plant for cultivation in this State.

GEORGE S. BAKER, JR.

Franklin county, N. C.

Cassava is of no use to you. It is a tropical product, and its growth is stopped by a light frost, or even by continued cool weather. It only grows in a climate free from frost for at least eight months. The only part of this country where it can be grown is Florida and a narrow strip of land along the gulf coast from Florida westward to Texas.—Ed.

Salsify—Celery Seed.

1. Can salsify be planted in the fall to make a crop for the following year—that is, planted in fall of 1903 to make crop for winter of 1904-1905? Isn't there danger of its going to seed? If it can be grown so, what time should it be sown? Please answer in September PLANTER.

2. How old are celery seed before they lose their vitality?

WILLIAM DANIEL.

Prince Edward county, Va.

1. You cannot grow salsify in the way suggested. The best way to grow salsify in this climate is to sow the seed in July and it will then grow right along to maturity instead of coming to a stand in the hot months, as it does when sown in the spring.

2. Celery seed does not lose its vitality very quickly, but we can find no record of tests giving the longest period within which its germinating powers continue. Even the new seed is slow of germination under unfavorable conditions.—Ed.

Plant for Name.

I have noticed a kind of clover (I think it is clover, but don't know what kind) that has come up in little patches. It is now dead and seems to grow only once a year. The plant is about fifteen inches high. I send you a little seed along in this letter for you to examine and make a reply in the September number of the PLANTER. I would like to know if it is good for anything, or if any one raises it.

JOE M. CHRISTENSEN.

This seed is that of *trifolium arvense*, in some sections called rabbit-foot clover or mouse-ear clover. It is usually regarded as a weed, but is of some value as an improver of land and stock will eat it. Much more valuable clovers can be grown with the same trouble and cost.—Ed.

Preparation for Alfalfa.

Will you please advise me on the following: I have a narrow strip of ridge land on my farm which I would like to get down in alfalfa. This tract is gray loam with clay subsoil. My idea is to sow this down in Canada peas this winter, cut peas for hay, then put down in cow peas, pick peas and turn under the vines. Then sow again in Canada peas, harvest them and plough land and work all summer to kill weeds, as you advise, previous to sowing alfalfa in the fall.

Can I dispose of Canada pea hay to advantage? About how much is it worth on the farm? Must I plough deep for Canada peas, and are the vines exceptionally hard to cure?

Do you think the rotation I propose all right? If not, please advise me what you think better?

This farm has been worked on the tenant system, and the above-mentioned land, while it was at one time in tolerably good order, will at present not produce more than ten or fifteen bushels of wheat after a crop of tobacco. Of course, this is tenant's farming, with no extra ploughing or fertilizing. I believe that with thorough ploughing and subsoiling and a coating of lime this same land would produce about twenty or twenty-five bushels of wheat.

Campbell county, Va.

A SUBSCRIBER.

The course proposed will be a right one to follow to get up the land. Use some acid phosphate on the Canada pea and cow-pea crops, say, 300 pounds to the acre. Put the Canada peas in deep, say, four or five inches cover and then sow half a bushel of oats

and harrow in. These will help to hold up the peas and make them easier to cure. The crop is no more difficult to cure than other vine crops. We do not know that there is a market for this crop, as so little of it is grown here. Where it is largely grown in the North it sells for as much as clover. It is a most nutritious hay rich in protein.—Ed.

Saving Horse Manure.

I desire to get some information in regard to horse stable manure. My farm is about a mile from town and I keep four, and sometimes five, horses in town, and as the manure is dropped it is each morning put in a large pile. It stays in this pile sometimes for a month and sometimes more, depending upon the time of year. Sometimes there is no crop just ready for it and it has to stay until there is. I notice that after it has been in this heap for a few days it will begin to smoke, and when it is hauled out has the appearance of white mould in it, and, to all appearances, does not prove nearly so beneficial to the crops as does that that is dropped in the farm stables and not moved until ready to go on the land. Now, what I want to know is, is there anything that can be done to this manure in the heap to preserve its fertilizing properties? If there is, I will very much appreciate your advice in the matter.

W. D. GRIMES.

Beaufort county, N. C.

In order to preserve the fertilizing value of horse manure when stored in a heap it should be sprinkled with acid phosphate or kainit each day when removed from the stable. This will prevent over-heating, which causes the white mouldy condition, known as "fire-fanged." Manure when it has got into this condition is of little value as a fertilizer. If acid phosphate or kainit is not at hand the heap should be watered frequently. The addition of acid phosphate or kainit greatly improves the fertilizing value of the manure, as it lacks both phosphoric acid and potash in its natural condition to balance the ammonia (nitrogen) in its composition.—Ed.

Storing Cabbage.

Will some of your readers who have had experience give in the next issue of the *PLANTER* the best method of keeping cabbage for winter use? Also state best time for cutting.

JOHN STABLES.

Dinwiddie county, Va.

The New York truckers save their cabbage crops for the winter markets by ploughing a single furrow from six to eight inches deep in which they place the cabbage, heads down, as closely as they can be set. They then turn a furrow over the heads from each side. The heads should be fully grown when put

away. A better plan is to make a pie, or heap, of the cabbage in an orchard or grove where there is some natural protection. Commence against a fence with a southern or eastern exposure. Pack the fence tight with a liberal use of straw or corn stalks, or both; against this set the cabbages as grown in the field upright, but with a little slope, and place close together. When the row is formed as long as desired place another row above these, letting the stalks come between the heads of the first row so that the heads of the second row come on the heads of the first. Add as many rows as needed in the same way. Then cover the whole with fresh fallen leaves and straw to the depth of five or six inches and put a little soil on these to keep the leaves from blowing away. Waste hay or short straw can be used in place of the leaves. The smaller undeveloped heads should be put in the bottom rows, as they will continue to increase in size during the winter. Cabbage should never be put away when wet or frozen. Better store a week too early than a week too late.—Ed.

Alfalfa—Land Plaster.

I notice in one of your articles on alfalfa in August number that you recommend top dressing with barn-yard manure, and in another article in the same paper you say that alfalfa is easily injured by wet vegetable matter lying upon the plans. Now, I wish to ask:

1. If there is danger of injuring alfalfa by top dressing it with manure containing much undecayed bedding, such as straw, chaff, sawdust, etc., applied in winter?

2. Does plaster applied to clover in the spring correct the acidity in the soil, or has it a contrary effect, owing to the large proportion of sulphuric acid that it contains?

3. Is plaster as beneficial to alfalfa as it is to red clover?

4. How long will alfalfa bacteria remain in the soil after the breaking up of alfalfa land?

5. Are the nodules produced on alfalfa roots by alfalfa bacteria as large as those produced on pea-vine roots by pea bacteria?

A. B.

Tennessee.

1. The manure applied as a top dressing to alfalfa should be well rotted and then no damage, but great good, will be done. Anything likely to hold water in quantity on the crowns of the plants is liable to cause rotting and loss of the stand.

2. Plaster (sulphate of lime) will not have the same effect upon a clover crop in correcting the acidity of the soil as lime in the form of a carbonate as in ordinary limestone or in oyster-shell lime. In

an experiment made by Professor Massey he dressed two adjoining fields of clover each with the same money value of carbonate of lime and plaster. They both made a good growth, but the effect of the freshly-slacked carbonate of lime was decidedly marked over that of the plaster.

3. Yes. In our opinion, however, freshly-slacked lime (carbonate of lime) is more effective on both crops than plaster. Plaster never makes a return commensurate with its cost, unless there is plenty of potash in the soil. It is claimed for it that it helps clover and the grasses by absorbing and holding moisture, and there may be something in this idea, as it undoubtedly has a strong affinity for moisture, but we regard it as infinitely less valuable as an improver of crops and the condition of the soil than freshly-slacked limestone or shell lime.

4. We are unable to say. We should not expect them to persist long in the absence of the plant, of which they are the specific microbe.

5. No. They are like those on red clover—very small, but numerous.—Ed.

Alfalfa—Mulching Potatoes.

1. When is the proper time to sow alfalfa?

2. On page 448 it is advised to mulch potatoes. Should they be cultivated and then mulched? How deep should the mulch be?

Surry county, Va. NEW SUBSCRIBER.

1. Sow alfalfa in August and September in your section; in April and May in the west of the State.

2. Yes. Mulch four or six inches deep.—Ed.

Ring-Bone—Fleas.

Will you, or some of the readers of the *PLANTER*, tell me if there is any remedy or cure for ring-bone? I have a fine saddle horse that went lame last winter in his right fore foot. We thought for a while it might be the shoe, but have found out since that it is ring-bone forming on his foot. I have heard that there is no cure, but would like to hear what you have to say on the subject.

I would also like to know if there is any way to get rid of fleas. I never saw such a quantity as we have this year, and all of my neighbors make the same complaint. They are all over the house—from garret to cellar. There is no rest for them, day or night.

Wythe county, Va.

SUBSCRIBER.

With a case of ring-bone so long established as this one appears to have been there is little hope of successful treatment. If taken in hand when first forming, vigorous treatment by blistering and the firing-iron sometimes arrests the disease. Firing might be

tried. If this does not give relief nothing will. The disease is usually regarded as an hereditary one, and, therefore, no horse affected with it should be used for breeding purposes. The lameness caused may be much relieved by proper shoeing. If the horse steps on the toe of the foot first high caulks should be used on the heel and vice versa if he steps on the heel first.

Tobacco dust has been suggested as a repellent of fleas from houses. Tarred paper used on the walls is also said to be effective in keeping them out of houses. They are a difficult problem to solve wherever animals are kept about a house.—Ed.

Melilotus Alba.

I enclose a sprig and seed from a rank-growing plant that I take to be the *melilotus alba*, mentioned in your last July number, page 444.

I know of no one cultivating it, but have heard that it is not only a great improver of the soil, but that it is splendid forage for all kinds of stock. I notice, though, that your article states "it is not generally liked by stock."

I would be glad to know what experience has been had with it in Virginia, and especially whether it is difficult to be gotten rid of. J. S. D.

Campbell county, Va.

The specimen reached us in such a condition that we are not able to say positively that it is melilotus, but probably this is so. We are not aware that this plant has anywhere in Virginia been grown as a crop. It flourishes here in many sections as a weed, but our information from many parties is that stock do not eat it when they can get anything else. It is, no doubt, an improver of the land, and for that purpose has, we understand, been grown in some of the States further South.—Ed.

Sod for Chickens—Milk Fever.

Please tell me the best mixture of grass for a chicken lot, soil a red, stiff clay hill. How would red clover and orchard grass do for grazing hens and a sod of Kentucky bluegrass and white clover do for young chicks? I want a good sod and a pasture for hens—something that would be conducive toward laying. How would it do to sow turnip seed with orchard grass and clover, or would mustard be better? Are those pungent herbs, like mustard and pepper grass, valuable as egg producers?

I forgot to say that the two chicken lots I wish to sod are set in young fruit trees, and while I want something for the hens do not wish to injure the trees.

What is the Schmidt treatment which is said to be a sure cure for cows with milk fever?

Amherst county, Va. AMHERST SUBSCRIBER.

A young orchard should not be put down into per-

manent grass if the best interest of the trees is to be considered. The orchard should be seeded down with crimson clover in July, and this should remain during winter and then be ploughed down in the spring and the orchard be kept worked until July and then be seeded again with the clover. It might, after the second year, be put into grass for a couple of years without injury. A mixture of orchard grass, tall meadow oat grass, red top and meadow fescue should be sowed and two or three pounds of red clover be seeded per acre with the grass. The best pasture for hens is a clover pasture, as clover is rich in protein, which is needed for egg production. Mustard and pepper grass are of no value as feeds. A little red pepper mixed in the feed in winter is good for them.

The Schmidt treatment for milk fever is the injection of iodide of potassium into the udder by way of the teats. It has been found to be remarkably successful in practice.—ED.

Hogs with Toothache—Milking Cows.

1. I write to ask whether or not there is any such thing as hogs having the toothache? I had a sow to give birth to nine pigs on the 29th of May, and at the time of birth, or a few days afterwards, I noticed something like sores on the little fellows. I at once got some creolin and began work on them. I have five out of the litter, and all but one apparently have done well. Thinking for a time it was due to the attack of the disease, I paid no further attention, until a few days ago I picked the one up that seemed to be stunted, and found on examination two teeth covered with a black coating, or what is termed black (tooth) teeth. Will it be well to pull them?

2. I would like also to get some information on the question as to how long a cow should be milked, and the use of her milk before calving? I have handled cows for a number of years, and in a good number of cases I did not know just when the cows would calf, and used the milk up to the very day without noticing any difference. I understand a cow should be rested for at least two weeks. But according to an argument held by an experienced farmer, he claims that even while the cow is pregnant her milk is not fit for use, as her whole system is out of order. I saw nothing to sustain him in saying so. Yet I would like information on the subject, as there possibly are others who think as this man. You remember in this case the milk is not fit for use from time of pregnancy.

Raleigh, N. C.

O. J. R. HOLCOMBE.

1. It is generally understood that all animals suffer, like man, from toothache, but whether pigs are more subject to it than others we do not know. The

so-called disease of "Black tooth" in pigs is like "Hollow horn" and "Hollow tail" in cattle, a myth unknown to the veterinarian. If the teeth turn black it is a *result* of disease elsewhere, and not a *cause* of it. The pulling of the teeth will not cure the disease. Probably what the pig ails is some disease of the digestive system. Give some sulphur in the food to cool the animal and purify the blood.

2. A cow should be milked until within six weeks of calving again if her character as a persistent milk yielder is to be made or maintained. It is ridiculous to maintain that a cow's milk should never be used when the cow is pregnant. If this rule were acted upon then no cow could be kept profitably. A milk cow to be a profitable cow should bring a calf every year, and should yield milk ten months out of the twelve, and even then to make a profit on the cost of her keep should give at least an average of over 5,000 pounds of milk in the year. Many of the best cows give nearly twice this weight of milk in the year, and some exceptional ones have given three times that weight. The milk is perfectly wholesome and good even if used right up to the time of the cow calving again, but a cow milked through in this way never makes so good a return as if given a month or two of rest before each calving, and will age and break down sooner than one periodically rested. There are, however, many good cows that milk through from calving to calving again, but in our own practice we always insisted upon a month or two of rest just before calving, and found the results warranted this. The only time when a cow's milk is not good to use is immediately after calving. For the first three or four days after calving she will give milk of a thick custard-like character. This is called "*colostrum*," and is caused by the breaking down of the fat globules in the udder. This milk is valuable for the calf, being nature's remedy for cleaning out the bowels, but is not good for man, though it is often used for custard making.—ED.

Damages for Service by Scrub Bull.

A has a bunch of registered heifers in his field. B's Scrub bull gets in with them, and nine months from the date four of A's heifers have calves. Can A recover damages from B, and if so, on what ground?

J. L. H.

Albemarle Co., Va.

Yes. We are of opinion that he can recover on the ground of the loss sustained by the production of scrub calves instead of pure bred ones. This point has been raised and decided, we think, in the West. We will try to find particulars of the case.—ED.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The harvesting, storing and shipping of the products of the truck patches, garden and orchard should receive constant attention as the crops mature. Do not allow fruit to remain on the trees until it drops from over-ripeness, nor roots to remain in the ground long after they have matured. In both cases the products will be injured. In handling the products, whether for storage or shipment, see that no damaged or specked fruit or roots are put away for winter use or shipped. Let all these be carefully culled out and be used or fed to stock at once. If they go into storage they will only set up rotting in the sound products, and thus cause disappointment when opened for use, and if shipped, they will materially injure the price received. All fruit and root crops pass through a "sweat" or heating after they are gathered. They should not be stored until after this has subsided. Put them into small piles in a dry shed, or if the quantity is too large for this, put up in piles in the field or orchard and cover with straw and boards to keep out rain until the "sweat" is over. Then resort and store or ship. Fruit keeps best stored in a dry, airy room on slatted shelves or in ventilated bins or boxes. Roots, except sweet potatoes, are best stored in a cool, dry cellar, or in piles made in the field. These piles should be made on high, dry land, and be so placed as that all water falling on them will at once drain away. Cover with straw to the depth of six inches, and then with soil. Sweet potatoes should be stored in a house specially built for their storage, or in a dry, frost-proof cellar, where the temperature can be kept at an equable one of about 40 degrees at all times by means of ventilation in warm weather, and by a stove in hard frost. In these cellars or houses they should be stored in slatted boxes, and when first put in the temperature should be raised to 60 or 70 degrees to cause them quickly to sweat and then to dry off the moisture rapidly. Onions should be pulled as they mature and be left in the field until the tops are dried, and then the tops be cut off and the bulbs be stored in a cool, dry room on slatted shelves.

Prepare the land for and sow the seed of the winter cabbage crop. The plants should be raised so that they will be ready for setting out in November. The Early Jersey Wakefield is the best variety for this crop.

Land should be got ready for the planting out of fall cabbages and broccoli, and the plants be set out as soon as possible. These will make good heads in the late fall.

Sow the seed of kale and spinach where the crop is to mature. The land should be well worked, but not be made over rich, as this has a tendency to make the plants too tender to stand the winter.

Potato onion sets should be planted during this month. Put them in rows 18 inches apart, so as to allow room for working, and set the bulbs 6 or 8 inches apart.

Lettuce seed may be sown this month for plants to set out in the following months in beds and in cold frames for the winter and early spring crop.

Clean up and burn all trash and waste where crops have been harvested, and thus get rid of insect and fungoid pests.

Land not needed for other crops should be worked and sown with crimson clover or vetches to conserve and add to its fertility.

APPLE DISEASES.

Editor Southern Planter:

I note in your issue of August, that "W. M." asks questions concerning the nomenclature of certain fungi. While I have not seen the publication to which he refers, I presume he has quoted the names given correctly. If so, the Latin names used do not apply to the disease for which the treatment is recommended. The name, "Schlerotinia fructigena," as used, could have no reference whatever to the disease of apples mentioned, but possibly may refer to the brown rot of peach and other stone fruits. Naturally, I am unable to say what the author had in mind when using this term.

The name "Dentriticum fuciadium" doubtless refers to the common apple scab. If so, the Latin name for this fungus commonly used, is "Fusicladium dendriticum." This disease of the apple is so well known that it hardly needs description, as the scab, and the consequent cracking of the fruit, which result from it, are known to every orchardist. The fruit never rots from the attack of this fungus.

The Brown rot, to which reference is made in this article as occurring upon the apple, may possibly be the "Bitter rot." The description of the appearance of the sori, or diseased spots on the fruit, leads one to believe that the writer had this trouble in mind. Most orchardists are quite familiar with the appearance of "Bitter rot" on the fruit, and know that the little pustules in which the spores are borne occur in concentric rings around the point where the attack first began. The Bitter rot can best be treated by the careful use of Bordeaux mixture, after the manner we have recommended in our bulletins. See Bulletin 100. The spray recommended in this article would be a very drastic treatment, and far more expensive than is necessary. Our recommendations of two pounds copper sulphate to twenty-five gallons of water will be equally as effective in destroying the winter stages of these fungi and much cheaper and safer to apply to the plants.

W. M. is certainly right in saying that many fungous attacks are placed to the credit of seasonal conditions. My experience leads me to say that careful spraying of our orchards with right substances, at the proper time, will help remarkably in making them fruitful. Climatic conditions certainly play an important part, but our unseen foes play a still greater part in the unfruitfulness of our orchards.

W. M. B. ALWOOD, *Mycologist*.

Experiment Station, Blacksburg, Va.

THE PRESENT AND FUTURE OF STRAWBERRY GROWING IN NORTH CAROLINA.

The possibilities of strawberry growing in Eastern North Carolina far surpasses those of any other part of the United States, if not of the world. These possibilities are the result of natural conditions and are eternal. When Nature's hand dug the Atlantic's bed and piled up parallel thereto the great Appalachian chain the work was begun. When by wave action and attrition she bordered this belt with a liberal fringe of flat alluvial soil and threw forward on its northward swing the warmth-bearing current of the Gulf stream, her part of the work was complete. She had not only made the ideal soil for the strawberry, which revels in humus, but she had by placing the sea on one hand and at just the right interval the mountains, made severe drought—especially at the season when this fruit, which is 95 per cent. water, ripens—practically impossible.

When a little later, geologically speaking, civilized man—which, after all, means eating man—came and huddled in cities to the northward, and wrought himself up into such a rush and stew that his feverish blood must necessarily be acid cooled, opportunity

was ripe for such parts of this region as has facilities of transportation.

Although this favored strawberry and general trucking belt extends in varying width from Norfolk down through North Carolina and far to the southward, undoubtedly the most suitable part of it for growing the strawberry on a vast commercial scale lies in this State. The reason for this is that this fruit ripens here at just the time when the weather at the North grows spring-like enough to create an immense demand for it, but still too early to meet with serious competition from other sources of supply. Either an earlier or later ripening season would not be near so good. Florida ripens berries a great deal earlier, but the demand is then limited, and if the millions of quarts of berries which we raise were thrown on the market at that season they simply could not be sold at all, and we should have to cut down our supply to fit the moderate demand.

As it is, we may safely grow all the good berries that we can pick and ship in proper condition. The comparative narrowness of the trucking belt will forever prevent the great glut of strawberries, even now so often occurring in the West. And the mountains will doubtless always remain barrier sufficient to prevent an influx of enough western berries to glut our ever-growing eastern market.

The West can grow more berries to the acre than we can, provided drought neither destroys the plants the summer before nor the berries during fruiting time. But through most of the strawberry regions of the West drought is a foe ever to be reckoned with.

Even under the most favorable weather conditions the western growers are far less favorably situated than ours of North Carolina. The region is so broad, ripening and throwing on the market so many berries at the same time, that prices are, and must forever, as a rule, remain, lower than with us. It might be argued that the increase and growth of large cities in the West would gradually equalize supply and demand there, as has been the case here. But here the sea is a great factor. As long as trans-Atlantic commerce lasts—not to speak of the manner of gadding the earth—just so long will the seaport cities outgrow and outbuy those inland. The result of these conditions, I repeat, must ever be to make strawberry growing and trucking generally more profitable in the East than in the West.

But enough as to possibilities. It is good to know their extent so that we may not fail in enterprise and energy to avail ourselves of them. It is now the less essential that we know the danger and drawbacks in order that we may, if possible, avoid them.

This danger, while two-fold, seems to arise largely from the same source. There is a deterioration of quality through carelessness in cultivating the plants and in picking and handling the crop; and a serious

curtailment of the crop through disease and the ravages of weevil and insect pests. As above stated, these troubles arise largely from the same source—from over-cropping and the lack of rotation.

Over-cropping, the growing of a larger acreage than is justified by the quantity of land at one's disposal, necessarily prevents rotation, which is more essential with the strawberry than perhaps any crop that grows. A man begins by putting, say, one-tenth of his land suitable for strawberries in that crop. He clears \$100, \$200, or perhaps a great deal more, an acre. He rapidly increases his acreage with more or less success till either all of his available land is in strawberries, or so near all of it that rotation is impossible. Consequently the same lots or fields are kept in strawberries year after year, or perhaps ploughed up and given one improving crop of cow peas or some kind of soiling or summer crop and then hurried back into strawberries again.

In a few years there comes a change. The plants lose their old-time color and vigor. The berries, despite better cultivation and manuring than ever, won't "size up." It is harder to get them picked, because picking is more tedious.

Not all his big plans and air castles can refute the stern logic of facts, or of checks, which are the same thing. For every year his checks, his returns, grow smaller per acre. He blames the weather the railroads, the commission men, the trusts, the amendment—everything but the right thing.

The truth is that his land has, to use a slangy, but expressive term, simply "berried out," or become "berry sick," and its owner, unless he can change his methods radically, is on the high road to bankruptcy.

One evil begets another evil. His unrotated fields and feeble plants become an inviting harbor of all pests and diseases. Thus the two evils have practically the same source. And it is hard to exaggerate in words the insidious power for harm of either of these evils.

The glib paradox that half is more than the whole, becomes a fact when applied to strawberry acreage. Better in the long run one acre properly rotated than two, three, nay, than five, kept to dwindle on soil that protests in so many ways against such unwisdom. And with proper rotation would come naturally many better things—smaller acreage, better cultivation, better manuring, better picking, better packing and better profits. The diseases and insect pests that attack the strawberry plants have not yet proven quite as harmful as those the general fruit grower has to contend with, though in the aphid and the weevil we see evils which will be great or small in proportion to the intelligence and perseverance with which they are met and combated.

Owing to the nature of the strawberry plant it is hard to successfully combat either disease or pests

on it. It grows so low, amid clods and trash, that spraying cannot be as thorough and effective as with fruit trees, whose every leaf and limb can be covered bottom and top. Mr. Sherman, our zealous and efficient State Entomologist, can be safely relied on to lend all possible aid to the growers in their battle with pests. He will at the same time inform them of the difficulties to which I have alluded.

Twenty-eight years' experience in strawberry growing has convinced me that these pests and diseases, like the devil, can best be fought with fire. Burn them up. But how burn pests and diseases and spare plants? It can be done, and we find the material right at hand, and at just the proper time to do it. As soon as the crop is gathered mow the plants as closely as possible. Let the mowed plants dry for a day or two. Then on a dry, breezy day loosen up the straw mulch and set fire to the field along its windward side. It will burn quickly over, leaving the field as clean as a floor. Not a vestige of trash or plant will be left. Diseases, pests and weed must then be at least largely destroyed.

In a few days a clean growth of vivid green foliage will appear, and in a week or two it will be hard to tell that fire ever swept over the field. I have never known a plant killed by the burning, though with an excessively heavy mulch and a very still day it might be possible to do harm, but it is most unlikely.

Cultivation should, of course, begin as soon as the burning is done. If spraying is to be done it would probably be best to begin with the stub immediately after the burning.

Burning cannot, of course, eradicate the aphid or root louse. Proper and timely care can destroy them by digging up and burning the infested plants (which are apt to be only a few at first), and by a long rotation of that field in other crops. Of course, every care must be used to prevent bringing in disease or pests on plants obtained elsewhere.

Lack of time has prevented my dwelling on modes of culture and manuring in this paper. I thought it best to devote the time I had to what I considered more vital questions. I will add that no field should be kept in berries for more than two years in succession and that it should be rotated for not less than three years in cow peas or some trucking crop. Of course, cow peas would be best, and by saving both the peas and the vines for forage, the land can be made to yield a profit on peas.

Vance county, N. C. O. W. BLACKNALL.

SPRAYING PLUMS IN VIRGINIA.

Notes on Varieties.

The production of plums is yearly becoming more important in this State. All of the natives and many varieties of the Japanese group are quite hardy and productive in this climate, while varieties of

the *Domestica* class succeed well when protected from fungous diseases. In the Station orchard leaf diseases (chiefly *Cylindros porium padi*) and the brown rot (*Sclerotinia fructigena*) are so common and difficult to control on the *Domestica* varieties that unless thorough and persistent spraying is practiced the trees soon succumb to these troubles. Certain hardy varieties like Lombard are able to survive despite the presence of disease, but all of the best table varieties are much weakened and finally destroyed unless most carefully sprayed. Yet even when the most thorough spraying is practiced it seems next to impossible to control the brown rot so as to secure a crop of fruit in the unfavorable seasons.

It has been a common practice in the Station orchards to commence spraying for these diseases very early in the season. We first give a winter treatment with bluestone solution made by using two pounds bluestone to fifty gallons of water. This is applied during the dormant season and is followed by an application of Bordeaux mixture (4-5-50) about the time the buds begin to swell. The above treatments are supplemented by later sprayings with Bordeaux mixture, the number of applications depending upon weather conditions. Ordinarily we spray five or six times, including the above applications. This course of treatment has been adopted here after considerable experience and observation. In order to determine more definitely the limits of necessary treatment for these diseases, certain modifications were made in treating a number of trees during the season of 1901. The season of 1901 was especially favorable to the growth of fungous parasites, and the applications were consequently extended beyond our usual custom. One tree each of Imperial, Lombard and Reine Claude were given only the first two treatments mentioned above—viz., with bluestone on March 13th, and Bordeaux mixture on April 27th. One tree each of Imperial and Lombard were given the first two applications, skipped at the third and fourth applications, but sprayed May 24th, June 7th, July 17th and August 1st with Bordeaux mixture. One tree each of the above varieties were given eight consecutive applications, beginning with the bluestone, while still dormant, and ending with the treatment of August 1st.

But slight difference was shown between the trees that did not receive the third and fourth treatment and those that were given the full number of applications. The results are more marked in case of the trees that were neglected after the third and fourth applications. Especially is this true with respect to conditions of the foliage and general vigor of the tree. While Lombard was able to carry its foliage well into the fall under this condition of neglect, the two unsprayed Imperials, one receiving two applications and the other four, suffered greatly

from leaf diseases and dropped their foliage quite early. At the very end of the growing season, the last week in September, the four trees (unsprayed) of Imperial attempted to put out new foliage, thus further accentuating their weakened condition. The Reine Claude, which received only two applications, suffered greatly also, and was quite bare of foliage before the close of the summer, while the sprayed tree carried a dense foliage late in the season. The untreated trees of the three varieties bore a fair crop of fruit, which was almost as free from brown rot as that of the sprayed trees, but on account of loss of foliage it failed to mature, never reaching over two-thirds normal size, and later shrivelled to such an extent as to render it entirely worthless.

All of the trees which received only the two first applications, with the exception of Lombard, dropped their foliage three to six weeks in advance of the sprayed trees. Furthermore, they made but little wood growth, and failed to mature a crop of bloom buds for the following year. The results the following spring were quite striking; even the Lombards, which received but two applications, and had thus far apparently suffered but little from lack of treatment, showed quite plainly that they were weaker than the other trees. The treated trees of this variety, although carrying a light crop of bloom, set a fair crop of fruit, while the trees which did not receive the later applications were without bloom and fruit.

The season of 1902 was not so favorable as the preceding one to the development of fungous disease, and none of the varieties were sprayed more than the usual number of times. The second and fourth trees of Imperial, first and fourth of Lombard, and the second tree of Reine Claude were again left unsprayed. The results are that both unsprayed Imperials were greatly injured by this neglect, one being practically dead this spring (1903), while the neglected Reine Claude is so much weakened that it will not likely recover. The Lombards do not appear to be greatly injured. All of the sprayed trees of these varieties are in good condition at this time.

It is thus clearly demonstrated by this simple experiment that summer spraying is necessary in this locality in order to protect the foliage on the plum trees of this class.

Spraying for brown rot should begin early in the season and continue until the fruit is quite mature. The bloom, leaves, and often the twigs, are badly attacked by the fungous early in the spring before the fruit is far enough advanced to show the trouble.

SUMMARY.

1. Varieties of plums of the *Domestica* class suffer greatly in this locality from attack of brown rot, and are also seriously injured by various leaf diseases.
2. To control brown rot it is necessary to begin

spraying early, else the crop is often destroyed in the blooming stage. The first application should be made during the dormant season. This may consist of bluestone solution or Bordeaux mixture.

3. If the brown rot is to be held in check, it is necessary to spray with Bordeaux mixture at intervals during the entire growing season. The number of applications necessary will depend upon weather conditions.

4. If rot is prevalent when fruit is near maturity, spraying at this time checks the disease to a marked degree. It is also advisable to pick and remove from orchard all diseased fruit.

5. Late spraying is especially advantageous in the control of the leaf diseases, and is necessary with *Domestica* plums if a healthy foliage is to be maintained to the end of the growth period.

NOTES ON VARIETIES OF DOMESTICA PLUMS.

Agen (Prune of.).—This is an old and well-known variety of European origin. The tree is a rather weak grower, although apparently quite hardy. A fair bearer. Season late; ripens latter part of August and first of September. Fruit medium in size, purplish color; flesh greenish, meaty, though tender, and of very good quality. This is one of the best varieties of the prune group that we have tested here. It is seldom attacked by brown rot. Recommended for home use.

Bavay.—This well-known variety originated in Belgium. It has not proved profitable on our soil. The tree is fairly vigorous in growth, but lacks hardiness. None of the trees have been productive. Fruit small, but of good quality; quite subject to brown rot. Season late; ripens September 1st. Not recommended for general planting.

Burdshaw.—This variety is of American origin. The tree proves to be a rather slow grower and is not altogether hardy, but is fairly productive. Fruit of large size, purple color and quite showy, excellent quality, but subject to rot. Season medium early; ripens last of July. This is one of the very best of our amateur plums, and is highly prized both for eating out of hand and for culinary uses. Strongly recommended for planting in the home orchard, but needs extra care. It is grown to a considerable extent for market in certain favored localities.

Bunker Hill.—The origin of this variety is unknown to us. The tree is upright in growth, fairly vigorous and quite hardy; bears good crops of fruit. Season late; ripens last of August. The fruit is a small blue plum, resembling the damsons very closely, but is considerably larger and has flesh of a different character. We recommend this variety as a culinary plum for home use.

Engelbert, Prince.—This old variety originated in Belgium. The tree is a rather weak grower and only moderately productive. Fruit below medium

size; flesh meaty, firm and of excellent quality. Season medium; ripens August 1st to 15th. Not recommended for general planting.

Geuii.—This variety originated in New York State. The tree is a vigorous grower and is quite hardy. Fruit of large size, blue in color, and of good quality. Usually a heavy bearer. This year (1903), when nearly all of the *Domesticas* were killed in the bud, *Geuii* was uninjured and is now loaded with fruit. Ripens August 15th. We consider this the best general purpose blue plum of the *Domestica* type. Highly recommended for general planting; not very subject to rot.

German Prune.—Originated in Germany. Tree a fair grower and hardy, but lacks productiveness; does not equal *Agen* in bearing, but it is a stronger grower. Fruit of fair quality for its class. Season late; ripens September 1st. Nothing to specially commend it.

Golden Drop, Coe.—A well-known variety originating in England. The tree is a rather slow grower and lacks in hardiness; trees are quite productive, though the fruit rots badly. Fruit large size, golden yellow, quite showy, and of fairly good quality. Ripens August 15th. This variety is not recommended for general planting.

Grand Duke.—Originated in Europe. This is one of the finest dessert plums of the *Domestica* class. Tree only moderately vigorous, though hardy; upright in habit and fairly productive. Fruit large size, blue in color, with tender, buttery flesh. Quality excellent. Subject to rot. Season late. Highly recommended for home planting, but needs extra care.

Imperial Gage.—Though a strong grower and fairly hardy, this variety has proved itself worthless on our soil. Fruit small and of inferior quality. Season late. Not recommended.

Italian Prune (Fellenberg).—Originated in Europe. This variety is moderately vigorous in growth and is hardy, but seldom fruits abundantly. The fruit is of fine quality for its group. Season late. Second best variety of the prune group tested here.

Lombard.—This plum originated in New York. The tree is moderately vigorous in growth, quite hardy, and uniformly a heavy bearer. Fruit medium size, but only fair in quality; rots badly. Season August 15th to 20th. Though this is a very hardy plum and bears neglect much better than many others, it lacks the quality for either an amateur or commercial plum.

McLaughlin.—This variety originated in Maine, and is one of the finest dessert plums belonging to the green gage group of *Domesticas*. However, the tree has never borne more than a light crop here, and, moreover, the fruit often rots badly. Fruit large, roundish, with meaty, tender flesh of excellent flavor. Season early. A good variety for amateur planting.

Naples.—This variety is of European origin. The tree is an upright in habit and a vigorous grower. Seems to be quite hardy, also productive. Fruit is below medium size, but is of fine quality, especially for culinary purposes, also good for eating out of hand. This is one of the best varieties for canning. Season medium late. Recommended for general planting.

Pond.—Origin, England. Tree an upright and rapid grower; fruit of large size and fine quality for desert purposes, but this variety is a light bearer, and the fruit is so subject to rot that we cannot recommend it even for home planting. Season medium late. It has proved an utter failure with us.

Quackenbos.—This is a well-known variety of New York origin. The tree is vigorous, though not a very strong grower, and appears to be hardy; not a heavy bearer. Fruit is of good size and fair quality, but is quite subject to rot. Season late. We do not recommend this variety.

Reine Claude.—This old variety is of European origin, and is so widely planted and well known that it needs no description. It is the standard for canning. Fruit below medium size, yellow in color; tender, meaty flesh, of excellent flavor. Uniformly a good bearer. Season late. Succeeds well with us. More subject to brown rot than Yellow Egg.

Shropshire Damson.—This variety originated in England. The tree is vigorous and hardy and uniformly a heavy bearer. Fruit rather large, compared with other damsons, and of excellent quality for culinary use. The best of the damsons. Season very late. Recommended for general planting.

Washington.—Of New York origin. Tree a good grower and apparently hardy, but has never borne a heavy crop. General type of tree and fruit resembling that of McLaughlin, but fruit is of superior quality for dessert. A large showy plum, flesh tender, melting and of fine flavor. Season medium early. This plum has value for amateur use, but is too shy a bearer for general planting; probably superior to McLaughlin for amateur work. Quite subject to brown rot.

White Damson.—This variety has only been grown here since spring of 1900, and has not yet fruited. The trees are good growers and apparently quite hardy.

Yellow Egg.—A well-known variety of European origin. Trees vigorous and quite hardy; a good bearer. Does not rot as badly as many of the Domesticas, though none of the varieties are free from this trouble. Fruit above medium, meaty and tender flesh, of good quality. Season medium; ripens August 1st. Though this is not equal in quality to many of the fine dessert plums, yet it is one of the best all-around varieties we have tested. For culi-

nary use and canning, we know of nothing better. Highly recommended for general planting.

LIST OF VARIETIES RECOMMENDED.

Medium Early.—Bradshaw and Washington.

Mid-Season.—Yellow Egg.

Medium Late.—Geuui and Naples.

Late.—Agen, Prune of; Grand Duke, Shropshire and Reine Claude.

WILLIAM B. ALWOOD, *Horticulturist*.

H. L. PRICE, *Assistant Horticulturist*.

VIRGINIA STATE HORTICULTURAL SOCIETY.

The next annual meeting of the Virginia State Horticultural Society will be held at Pulaski City, Va., on Wednesday, December 2d, and following day, when, in addition to papers on topics of interest to fruit growers and discussions, there will be an exhibit of fruits, vegetables, flowers and seeds. Diplomas will be given by the Society to the best in each class, to which will be added any premiums that may be offered by individuals or firms, of which due notice will be given. These competitions will be limited to members of the Society, of which the membership fee is \$1. Further particulars as to arrangements for special railroad and hotel rates, etc., will be published next month, or may be obtained from Walter Whately, Secretary and Treasurer, Crozet, Albemarle county, Va.

WALTER WHATELY,
Secretary and Treasurer.

Weevil in Beans and Peas.

Will you please tell me how I can protect dry beans and peas from weevils?

Cumberland Co., N. C. MRS. G. A. WILRATH.

Put them in a tight box or bin, and place a saucer on the top of the seed and fill it with carbon bisulphide and shut the lid. The fumes from the carbon, which are heavier than air, will descend through the grain and kill everything living therein. Leave closed for 12 hours, and then air. Have no lights about as the carbon bisulphide is very explosive. You can buy the drug at the drug stores. Millers use this to kill weevil and insects in the mills and elevators.—Ed.

Grass Seed Mixture.

What grasses should I seed with clover to make a better pasture the balance of the summer after the clover has been cut and the sod to be ploughed the following winter?

SUBSCRIBER.

Northumberland Co., Va.

Sow orchard grass, tall meadow oat grass, red top and meadow fescue.—Ed.

Live Stock and Dairy.

MEAT PRODUCTION IN THE SOUTH.

Editor Southern Planter:

No one will argue for a moment that we ought not grow all the meat consumed in the southern section of this great country. Meat being the most expensive article used in the feeding of our nation, is there any reason that could be brought forward to prove that we southern farmers should be content as *croppers* only, when the great possibilities of live stock husbandry may be ours for the taking. The only question is, can we grow this millions of dollars worth of meat and in the production of it make for ourselves and our children pleasant, happy homes and surround them with the comforts of life to a greater or less degree? I answer, most emphatically, we *can*, and at the same time make of our beautiful Southland a land of plenty, covered with green fertile valleys and grass-covered hills, instead of barren hills, galls and washes, as is the state of altogether too much of it at present.

My firm belief is that nowhere in America to-day are there such possibilities as present themselves to us right here in the South Atlantic Coast States. Now, what are some of the reasons why we are not more extensively engaged in this very remunerative and pleasant branch of farm husbandry? I believe that one of the main reasons is that we have been content in the past to allow some one else to do our thinking for us. To the tenant system we are indebted also for much of our barren land. I find very few of the tenant farmers have any desire further than to supply—with the least expenditure of labor—their bare wants. Lack of ambition is, I believe, the greatest calamity that can befall mankind. Ambition moves the world; and it is just as necessary in the farming business as in any other branch of industry. We have been told that we cannot grow grass in this section. I will answer that if we had expended one half the time and money trying to grow grass that we have spent in trying to destroy it we would have grass in plenty. Grass is the first essential in the production of beef, pork or mutton, as pasture is the cheapest and most practical method of feeding all kinds of stock during the spring and fall months. During the dry period of summer the pastures should be supplemented with green food of some kind, corn silage preferred. As winter comes on the stock should be housed in dry, com-

fortable quarters and provided with liberal quantities of all kinds of nourishing food, of which this section can produce an abundance.

After we have the feed, the next thing to be considered is the type of animal we should procure to work up this good feed into profitable meat.

Upon examination we will find the same general conformation in the more profitable individuals of all the meat-producing breeds. The broad, clean-cut head; prominent, bright eye; short nose, wide nostril; short, broad back; full in the heart, well sprung rib, broad hind quarter; deep, thick twists, and, over all, a good, mellow hide. These qualities are what go to make up the profitable meat-producing animal of the twentieth century. We now come to by far the most important factor in the production of high class meat—that is, *the eye of the master*. The Scotch have a saying that “the eye of the master is half the beast,” and it is more than true.

In no business with which the writer is familiar does the master mind behind the business count for so much as in the business of producing high class meat. The thousand and one things that he must know, and must be able to make other people know, makes the head of a first-class live stock business no lazy man's job. A book might be written upon the subject of “What a live stock farmer ought to know,” and still the half would not have been told. Any way, the average farmer won't have to go away from home to find work for his brains.

A few thoughts along the line of general care of stock and I will leave this subject. In the first place, never feed good feed to mean animals, better sell it. Secondly, don't feed mean feed to good stock. Feed good feed to good animals, and feed plenty of it. Don't think for a moment that good blood will take the place of feed, it will not. Our best breeds were brought to their present state of excellence by selection and feed through many generations. And bear in mind that a breed will deteriorate much faster under poor treatment than will improve with the best of attention.

Every stock farm should be provided with silos, as corn silage is the cheapest carbonaceous food that can be produced. Never feed lice or ticks on any kind of feed, good or bad. Kill all sorts of parasites by dipping or washing the animals. Be friendly with your animals, talk to them, scratch the pigs' back when you feed him. That fine bull loves to

have his tail scratched. Pat the lambs on the head. Some people don't get well enough acquainted with their animals to tell one from the other. They will never make the most successful stockmen. The first-class stockman must be able to see the image of his ideal animal whichever way he may look. Have an idea and work to it.

A. L. FRENCH.

Rockingham Co., N. C.

We would suggest to our correspondent that he does not sufficiently emphasize the value of the numerous forage crops of which we can grow a greater variety than any other section of the country as adjuncts to the pasture. Whilst we are getting the grass pastures do not let us wait and lose time. We can carry beef stock all the summer on forage crops and improve them every day whilst doing so. Cow peas, soy beans, sorghum, teocinte, alfalfa and the clovers can be raised so as to provide feed all the time, whilst the corn is growing for the silo for winter feed.—ED.

KEEPING PURE BRED CATTLE IN THE SOUTH.

Editor Southern Planter:

I wish to give my experience along the line of pure bred cattle feeding, not that it may fill up your valuable paper, but for the especial benefit of all Southern planters, who contemplate cattle raising. This is my third year with imported cattle, and here is what I have to say: If you have never engaged in the raising of improved cattle, don't; echo says don't, until you first have each and every animal from which you wish to begin thoroughly inoculated, for if this important factor is overlooked and ticks get among your herd, just so sure will the last one of your cattle take the Texas fever, and not only get sick, but will die in spite of all the doctors and veterinarians in the world.

Three years ago, out of a bunch of shorthorn grades of one dozen, I lost eight of the number. When I found that the fever was among them they commenced to die by twos and threes per day. The next fall I purchased as fine a looking shorthorn bull of an Ohio party as I thought the earth held, at a cost of \$150, and in less than two months he died of this same tick fever. In January, 1902, I purchased of the same party shorthorn bull No. 2, and of another party a fine-looking Devon bull. In less than six months both these bulls were attacked by tick fever, and both succumbed to the same. Determined not to give up in spite of this discouragement, I last Septem-

ber (1902) visited the Angus herd of Messrs. Wm. M. Watkins & Sons, of Randolph, Va., and there purchased of them a young bull at the price of \$100, and a little later purchased of these same people a three-year-old cow, that dropped in April, 1903, a heifer calf not akin to the young bull. On this same visit I purchased by letter, of W. S. Foster, Esq., of Blacksburg, Va., a fine Red Poll young bull, and all three of these cattle reached me about the same time, in November. To say I was proud of my stock seems to be putting it in too mild a form. In January, 1903, our State Veterinarian came out and inoculated the Red Poll and Angus bull, and in March he inoculated them the second and last time. The Angus cow being heavy in calf the veterinarian did not advise her inoculation. All went well until turning them to pasture first of May. The cow and bulls commenced to have ticks upon them, but they stood up so well I had about flattered myself that even the Angus cow would pull the season through as well as the bulls. This was all of no avail, for on the 27th day of June we noticed, for the first time, that she showed sickness, and refused to eat, and I telegraphed the veterinarian of the cow's sickness, but he had other engagements, and could not come, but sent word as to treatment, and on July 1st she, too, "handed in her checks." Inoculation has saved the bulls, and they are both now as fine looking specimens of health and growth as any cattle North or West. They have been all summer and are now literally loaded with ticks. The Angus bull, my herdsman said last evening, had more ticks upon him than any cow he ever saw. These bulls are now as fully tick proof as if born in the tickiest portion of any tick country in the world. They are open to inspection. Yes; I would be glad for any and every one who wishes to know if the pure bred cattle business can be made a success in a tick district, to come and see these bulls. The little motherless Angus heifer, while she has not, under the circumstances, made the desired progress, yet is growing some, and we feel now that her safety as to being raised to cowhood is assured. My experience as to tick fever has cost me not less than \$1,500. Your readers get this much worth for the reading.

Halifax Co., N. C.

C. A. WILLIAMS.

If only Southern farmers would take note of what we have written on this subject of Texas fever in the past few years they could save themselves these expensive experiments.—ED.

When corresponding with advertisers, kindly mention the *Southern Planter*.



MANOR HERCULES.

Filston Farm, at Glencoe, near Baltimore, met a severe loss in the death of their champion young boar, Manor Hercules, which they were importing from England on the White Star ship, Cevic. Manor Hercules was bought from the Danesfield estate, at Marlow, and had made a triumphant tour of the English shows during the summer, winding up by winning the championship of the Royal on June 22d. Mr. Colin Campbell writes from England that not for many years had the Royal shown so fine a type as this young boar.

Manor Hercules died from the effects of the sea voyage the day before reaching port. He was sired by Links Essau out of Floradon Baroiness, and had he lived to be shown in this country, as he would have been had he reached here safely, there is little doubt that he would have repeated his English successes. Manor Hercules would have been a notable addition to the Filston herd, which includes already such famous imported prize winners as Manor Faithful, Her Majesty, and many other Berkshires of distinguished lineage.

WHAT CONSTITUTES A PERFECT BERKSHIRE.

Editor Southern Planter:

Short in the legs, back broad, straight and evenly fleshed, ribs well developed, rump and twist good, hams well down to hock, breast and neck full, no creases in neck or sides; ears clean, full and of small size, standing erect and well placed; face broad and dished, wide between the eyes and ears; nose short

and meaty; hair fine and thin, though many prefer heavy coats, slightly arched back, that will never come down, four white feet, a blaze in the face, and white tip at end of tail, a gentle disposition. The Englishman wants a stocky, five to six hundred pound boar, and "rangy" five to seven hundred pound sows, but pig fashions may have changed there of late.

Rockbridge Co., Va.

T. OS. S. WHITE.

FEEDING HOGS.

Whey, skim milk and buttermilk are of great value as part of the ration for fattening swine. There is practically no difference in the feeding value of skim milk or buttermilk when each is fed in prime condition. They produce rapid and economical gains and a fine quality of bacon. The average of many experiments show that 475 pounds of skim milk are equal in feeding value to 100 pounds corn meal.

Pigs will maintain their weight on pasture without making any appreciable gain, if a half ration of grain is fed. This grain will be utilized entirely in increasing weight. The best pasture plant for pigs is alfalfa, where it will grow, while red clover, white clover, blue grass and rape are good pastures in about the order named. A pasture to be satisfactory for swine must be short and tender. Experiments show that one acre of rape or other suitable pasture is equivalent to 2,600 pounds grain when fed the pigs.

At odd times give the farm a general cleaning up, and burn litter, or use it for mulching shrubbery and fruit that need protection.

The Poultry Yard.

KILLING HAWKS.

Editor Southern Planter:

Will you please allow me space in your valuable paper to suggest to all farmers who are bothered by hawks to try my plan?

Buy a steel trap that when set has no spring extending beyond clamps, so that when the hawk lights he will be sure to spring it. These can be had at any good country store, or at any hardware house. Take the trap and nail it on a pole through a hole that will be found convenient for the purpose. The pole should be about fifteen feet long, and be erected in a secluded place, a meadow is generally best, not too near the house, with the trap firmly nailed on end of pole. The traps should always be kept greased, so as to be sure to spring at a slight touch.

Early in February, 1902, I erected a pole in a secluded low field on my father's place. I caught a large hawk the first day the trap was set. I continued to catch them, and a little later on I set another trap in a small meadow, and on these two traps I have caught forty hawks.

I would strongly advise all farmers who are troubled with hawks to try this method of destroying them. Besides saving much money in hens and chickens, many counties in the State pay bounty for the scalps of hawks. The traps generally cost about twenty cents each.

JOSEPH J. TABB.

Gloucester Co., Va.

GAPES IN CHICKENS.

Editor Southern Planter:

The belief I find is generally accepted that gapes are caused by vermin or by being kept on grounds where chickens infected with gapes have been previously cooped. My experience fails utterly to substantiate either of these theories. I find that they come from breeding from chickens infected with the gap bacilli, or, in other words, they are inherited from the parent bird. This is proven to my entire satisfaction since coming to my present home, in the month of May, 1903. I brought with me my chickens from my former place of residence, and among which I had never had a single case of gapes. They were all pure bred White Wonders and Buff Leg-horns; had none of any color except white and buff. A friend kindly sent us a grey hen and a newly hatched brood, for which I was very thankful, but which has proven to be a very costly gift. Gapes soon appeared in this flock of chickens, most of them

survived, and I had them used on our table, but that grey hen, much to my regret, was kept over another season, and most of her progeny (easily told by the color) had gapes, and now we have them regularly (but not as yet to much extent) amongst our chickens. This settles to my entire satisfaction the cause of gapes, and leaves but one practical way for their eradication—that is, to dispose of your present flock and replenish from one that is not troubled with this disease. Since my experience above stated, I remember on one occasion my parents disposed of their whole flock because they had gapes, and started anew with birds that had not been troubled in this way.

Fauquier Co., Va.

R.

VERMIN PROOF ROOSTS.

Editor Southern Planter:

My plan for making the roosts for my poultry to avoid having them annoyed with mites or lice is as follows: I have all supports for roosts, and the roosts themselves, of dressed lumber; no holes or cracks in them where mites can hide or breed, then swing the supports for roosts to roof by wires, so that they will not touch the house anywhere. Lay the roosts on these supports and keep them in place by nails driven each side of them, so they can be readily removed if desired. I have been using roosts thus constructed for the last twenty years, and have never been troubled with mites or lice in my hen house during the whole time, and, in fact, very little with any kind of vermin. The roosts should be painted occasionally with coal oil, in which a small quantity of Lee's Lice Killer should be used, to keep down the larger vermin.

R.

Fauquier Co., Va.

KILLING HAWKS.

Editor Southern Planter:

I notice in your issue of August a request for information about killing hawks with strychnine. I think if H. Denhurst will try my plan he will get rid of the hawks, and not hurt his hens. I have always found it satisfactory. Get from a drug store some fluid extract of nux vomica, and wet the feathers on the top of the heads. I have not used it on full grown hens, but always save my chickens in that way. For little chickens pour some of the extract into a little dish, just dip in the finger and touch the chickens just back of the top of the head. Of course, more would be needed for a hen.

Surry Co., Va.

MRS. S. MATTHEWS.

The Horse.

NOTES.

Richmond's third annual Horse Show promises to be a grand affair, and Secretary W. O. Warthen and his associates are enthused over the bright prospect ahead. The show will take place during the week of October 12th to 17th, and details are fast being completed for the greatest event of the kind ever seen in this southern country. Last fall the big amphitheatre at Reservoir Park, where the show was held, was taxed to provide accommodations, but now with increased facilities the management hope to handle with ease the largely increased attendance that is expected. Already every box has been taken and a large number of the best seats have been sold, which is ample evidence of the great popularity of the Richmond Horse Show. The Marine Band, with its fifty players from Washington, will furnish music. Concerts will be given daily by this splendid band from 11 A. M. to 1 P. M., when the horses will be paraded, and this of itself will prove one of the most popular features of the show. Performances will begin at 8:30 each night throughout the week, while in addition a matinee will be given on Saturday afternoon. Over \$8,000 will be offered in premiums, and it is safe to predict that the greatest lot of horses ever exhibited in the South will compete for the rich prizes to be distributed in the different classes.

The following gentlemen, who are widely known and regarded as experts in that line, will serve as judges: Charles P. Williams, of Stonington, Conn.; Marian Story, New York; Edward Browning, Philadelphia; John R. Valentine, Bryn Mawr, Pa.; Tompkins McIlvaine, New York; Charles Wheeler, Philadelphia; Sidney W. Stillwell, Rutland, Vt.; John Kerr Branch, Richmond.



The grounds and track of the Roanoke Fair Association, at Roanoke, Va., have been gotten in shape, and necessary buildings are in course of erection for an exhibition there this fall. October 21st to 23d, inclusive, are the dates selected. The leading features include an agricultural and stock exhibit, combined with races for harness horses and runners. The grounds of the association are attractive in appearance and located right near town, being easily reached by electric cars and otherwise, while the half-mile track has been constructed with great care and is looked upon as both safe and fast. Leading citizens and business men are backing the enterprise and are confident of a successful issue.

The list of officers follows: President, James P. Woods; Vice-President, Ed. L. Stone; Treasurer, Robert H. Angell; Secretary, W. L. Andrews. Board

of Directors—J. Allen Watts, S. S. Brooks, Louis Scholz, H. N. Dyer, Henry Scholz, Arthur L. Seibert, W. C. Stephenson, S. H. Heironimus, J. H. Wingate, John Rose, S. Simon, S. P. Seifert, H. E. Jones and Frank Read.



With handsomely fitted up offices on Broadway, New York, and as manager of a big mercantile concern, James F. Scott, who figured prominently in the horse world for some years, is again riding on the wave of prosperity after various ups and downs. He was widely known during 1894 and 1895 as managing partner of the firm of Holt & Scott, Graham, N. C., owners of the famous pacer, John R. Gentry, with M. E. McHenry as trainer and driver; later as the head of Knowlton Farm, home of Ashland Wilkes, Lexington, Ky., and afterwards as manager of Griswold Lodge Farm, Great Barrington, Mass. Mr. Scott has his residence in New York, but the old homestead at Franklinton, N. C., is kept up and late improvements include a big barn for the horses.

The richly-bred 2-year-old colt, Pelby, by Allerton, 2:09 1-4, dam Bon Mot, by Baron Wilkes, has recently been purchased of John Donovan, St. Joseph, Mo., and after being developed it is the intention to place him in the stud at Franklinton, along with a choice band of breed mares.



Mr. Harry C. Beattie, of the Bloomingdale Farm, this city, has sold to General William T. Townes the well-known mare, Amulet, a chestnut, foaled 1883 by King Bolt, dam Ecliptic, imp. Eclipse, second dam the famous Nina, by Boston. General Townes is associated with the American Tobacco Company, with headquarters in New York, but his stud of thoroughbreds is kept near Charlottesville, Va., where Amulet joins the richly-bred band of brood mares. General Townes has been leisurely collecting his stud for several years past, and each season has mated his mares with prominent sires in Kentucky and Virginia.



The big bay stallion, Russell Rex, by Mambrino Russell, dam Fay Boyd, by Aleyone, owned by E. C. Leach, Newport News, Va., after closing his stud season, was placed in training and is being raced through the Maryland and Virginia circuit of fairs and race meeting. In his work he trotted trials close to 2:20 and could show quarters at a faster rate of speed. Though a mastodon in size, being 16:3 in height, and weighing close to 1,400 pounds, this son of Mambrino Russell is of symmetrical proportions,

and one of the handsomest stallions that ever scored for the word in a race. Russell Rex figured as a blue ribbon winner in the roadster class at the Richmond Horse Show, both in 1901 and 1902. He was bred by ex-Postmaster A. H. Lindsay, of Portsmouth, Va., who owned the dam, Fay Boyd, a daughter of Alcyone and Annie Boyd, by Belmont.



Secretary B. F. Toy, of the Hampton Roads Driving Park Association, Newport News, Va., has issued the speed programme of a one-day race meeting to be held there on September 7th, when purses will be offered for trotters, pacers and runners. The classes for harness horses include a free-for-all trot and pace—one for 3-minute trotters and another for 2:30 trotters. The monthly and semi-monthly matinees and race meetings of the Hampton Roads Driving Park Association have furnished good sport and entertainment for Newport News and Hampton people this season. The forthcoming meeting is fixed to take place on Labor Day—a general holiday—and the attendance is likely to be large.



Mr. Harry C. Beattie, owner, breeder, horse show patron and also widely known as Master of hounds of the Deep Run Hunt Club, and vice-president of the Richmond Horse Show Association, has a big stable of hunters, jumpers and high-stepping harness horses quartered at Bloomingdale Farm. The prize-winning high jumper, Buck, a chestnut son of Rover, by Abdel Kader, is probably the best known member of the collection; but there are some younger horses likely to gain distinction with age and experience in the show ring. The latter division includes Blizzard, a 4-year-old son of the "iron horse," Blitzen, who is highly regarded by Mr. Beattie. Buck, Blizzard and one or two others in the Beattie stable were winners at the Atlantic City Horse Show.



One of the handsomest 3-year-olds in Virginia is the bay colt by the saddle stallion, Shadeland Denmark, out of Goldie H., thoroughbred daughter of Milner and Vrenetta, by Voltiguer, bred and owned by Mr. William Townes, who has a fine old homestead near Cuscowilla, in Mecklenburg county. Goldie M., the dam of this colt, has been owned by Mr. Townes for some years past. She is a large, handsome bay mare, full 16 hands high and her produce take after her. At different times the daughter of Milner has been mated with the thoroughbred sires, imp. The Jacobite; Garrick, the son of Lexington; Pardon, Eric and Dan Spanker. Goldie M. was formerly in the stud of the late Judge Robert W. Hughes.



The bay mare, Faustena, thoroughbred daughter

of Eolus and War Lass, by War Dance, formerly owned by William Rueger, has been purchased by him from W. K. Mathews for use as a brood mare. By the trotting sire, Robert Ransom, Mr. Rueger owns a couple of nice young mares out of Faustena, and he has bred the daughter of Eolus to Langlane, thoroughbred son of Longstreet, by Longfellow. Langlane is in the stud of Edmund Winston, Hanover Courthouse, Va., and his dam was Highland Lassie, by imported Highlander, second dam Algeria, by Abdel Kader, and third dam the famous Nina, by Boston. Algeria was bred by the late Major Thomas Doswell, Bullfield stud, Hanover county, where Nina passed most of her life and dropped her long list of progeny.



James A. Graham, who, until recently, owned Gould Hill Farm, near Hanover Courthouse, Va., and while there bred such good ones as Virginia Jim, 2:12 1-2, and others, was here during the past week on a flying trip from the West. Mr. Graham had Lecwood, the sire of Virginia Jim, and some choicely-bred brood mares at Gould Hill, but disposed of them a few years ago. He has now, however, re-entered the horse business and has a big stable of trotters and pacers in training at Monmouth, Ill. During his residence in Virginia Mr. Graham made numbers of friends who will wish him all success in the new venture. He is a practical horseman, and with it, one of the best informed students of blood lines and pedigrees in the country.



The Virginia-bred trotter, Ida Gray, bay mare, foaled 1897, by Bursar, 2:17 1-4, dam Maud, by Walker Morrill, made a good showing at Brighton Beach, N. Y., during the recent trotting meeting there by winning the second heat of the 2:18 trot and reducing her record from 2:19 1-4 to 2:13 1-4. In the summary Baron Dillon stood for first money and Ida Gray came second. She was bred by Smith Walters, of Onancock. Bursar, the dead son of Stranger, who sired Ida Gray, was not only richly bred, but a trotter and race horse as well. He left a number of his get on the Eastern Shore of Virginia, and his blood is likely to breed on for succeeding generations.



Captain Edward R. Baird, whose farm is near Occupacia, Essex county, Va., has some promising young horses, owned and bred by himself, and sired by Judge Morrow, thoroughbred son of Vagabond and Moonlight.

Captain Baird's collection includes a pair of young geldings, full brothers, 4 and 5, by Judge Morrow, dam a trotting mare that he thinks highly of, and later may have them fitted up for the show ring.

BROAD ROCK.

Miscellaneous.

CLIMATIC FACTS, FIGURES AND FEATURES RELATING TO THE MIDDLE ATLANTIC SEABOARD.

Editor Southern Planter:

The one warm day for the summer of 1903 was 96, on July 3d. The warmest day in August so far (18th instant) is 90. July gave us only four inches of rain, but it was nicely distributed throughout the month in eight showers. Rain fell on the 4th, 6th, 7th, 13th, 14th, 20th, 23d, and 31st; seven days being the longest time between showers. With a heavy dew at night, and four inches of rain well distributed, we manage to get along very well, although the average rainfall for July for the past thirty-three years has been 5.87 inches.

The greatest rainfall for July ever recorded was 10.69 inches, in 1889; the least ever recorded was 2.02 inches, in 1878. The average temperature for July, 1903, was 79, which is exactly the average for July for past thirty-three years.

The rainfall for first half of August is a little less than three inches. The average rainfall for August for past thirty-three years has been 5.82 inches. The greatest rainfall for August was in 1875, when 10.37 inches fell; the smallest rainfall for August was 1.74 inches.

The average rainfall for July and August combined for past thirty-three years has been 11.69 inches per year, and the average number of rains for the two months twenty. Just think of nearly twelve inches of rain falling in twenty showers during sixty days in midsummer, averaging one shower for each three days.

More rain falls in July and August (two months) than in December, January and February (three months). That is the kind of a rainfall to have—have it when you need it, and can use it to best advantage.

The average rainfall for December for the past thirty-three years is 3.45 inches; for January, 3.32 inches, and for February, 3.80 inches, which equals 10.57 inches for the three winter months, and this is 1.12 inches less than for the two months of July and August.

Plenty of these facts, figures and features are furnished by the Government, showing the advantages of a mild climate and a liberal and well distributed rainfall.

Think of timothy hay selling here at twenty-one

dollars per ton retail, and clover at seventeen dollars per ton, and such good soil as we have, and such good growing weather for hay. It is a fact, that hay is quoted in our markets to-day (18th August) as follows:

No. 1 Timothy, \$20 to \$21 per ton.

No. 1 Mixed, \$19 per ton.

No. 2 Mixed, \$18 per ton.

Clover, \$17 per ton.

And thousands of acres of good hay lands here lying idle. This condition of things pleads strongly for immigration. The soil here, climate here, markets here, but the hay men are not here.

The market gardeners are here as good as can be found anywhere, but the all-round farmer is not here. "The all-wool-and-yard-wide-hay-seeded and horny handed" stock and hay farmer is not here. Therefore our surplus money goes to the West and Northwest for hay, pork, beef, butter, cheese, etc., which soil products should all be made right here in Eastern Virginia, near the sea. Right here on this Middle Atlantic seaboard.

One would think, that with the facts, figures and features furnished by our Boards of Trade, always before our people, showing our great purchases of the ordinary farm staples from the far West, in connection with our surplus lands lying idle, and with the splendid advice and instruction given them, in each and every issue of the *PLANTER*, one would think our people would, could, or should, wake up to the necessity of doing something besides plodding along in the peanut and tobacco ruts, made by their grandfathers. But we fear they are "wedded to their idols"—peanuts and tobacco.

We'll have to "let them alone" and turn hopefully to the East, North and West for general farmers to utilize our good lands lying idle, and raise thereon the crops we now purchase outside the State.

Norfolk, Va.

A. JEFFERS.

NO HAWKS.

Editor Southern Planter:

To kill all the hawks, take one or two broods of chickens and mix strychnine with enough grease to stick and grease the tops of the heads of the chickens, and a little on the top of the back of the neck. Turn these out and let the hawks catch them. Keep the rest of hens and chickens up one or two days. There will be no more trouble with hawks.

Campbell Co., Va.

W. H. MATTOX.



VIRGINIA FARMS.

Editor Southern Planter:

Having been a reader of your journal for a number of years, I have been impressed with the fact that very little has ever been written to the *PLANTER* from this section of Virginia, and from the nature of the enquiries I have had for farms in answer to my advertisement in your journal, and the multiplicity of questions asked, I am going to ask the privilege of replying to a great many of these questions by giving a short description of Fairfax county in the *PLANTER*. If one will consult the map, it will be seen that Fairfax county is one of the border counties, lying along the south side of the Potomac river, and very near the District of Columbia. It has a population of about 20,000, and enjoys the comfort of being out of debt, consequently has a low rate of taxation, about \$1.10 on the \$100. It has a great variety of soils, adapted to all kinds and classes of farming, such as trucking, fruit and berries. General farming, hogs, cattle and horses and dairying.

Drainsville and Centreville districts lie in the northern edge of the county, and join Loudoun county. The soil of these districts is generally a chocolate clay and loam, and has a stiff clay sub-soil, and generally underlayed with a kind of rotten limestone; it is exactly the same class of soil found in Montgomery and Frederick counties, Md., and cannot be excelled for corn, wheat, oats and timothy and clover. A great many of the farmers here average 75 bushels of corn per acre and two tons of hay. As a rule, the farmers who work are prosperous, and have nice homes. Good homes can be bought here ranging in prices from \$12.50 to \$50 per acre, and the elevation is from four to five hundred feet above the sea level.

I am asked why the same class of land is so much cheaper in Virginia than it is in Maryland. This is

true, and is due to the fact that while the natural quality of the soil is about the same, the Maryland land has been farmed better, and is in a higher state of improvement as a whole. The Maryland side of the Potomac river has enjoyed advantages of the city markets that the Virginia side did not. It has only been a few years since the bridge across the river from the Virginia side into Washington was made a free bridge, and it was during the last session of Congress that the electric car lines were granted the right to cross this bridge from Virginia into Washington; now we have three (3) separate corporations building and operating electric roads in Fairfax county, and we hope by this fall to see these roads all crossing the bridge into the city, so you can see that under these circumstances Virginia lands have not been so much in demand as they should have been, considering their proximity to the city. Before the civil war the Virginia lands here were owned in large estates, say from 500 to 1,500 acres in an estate, and worked by slaves, and when the war was ended some of these large estates were left without labor or money to operate them, and if any of the sons of these large freeholders were fortunate enough to return from the war, they had not been taught and had no practical experience in farming, and the result was these large estates (which, as a rule, had been stripped of everything by the armies of both sides) were left to grow up in timber, or to be farmed by renters, and being situated so near a good market, naturally these tenants hauled all grain, hay, etc., to market, and thereby robbed the land of its living, by not feeding it at home. After this condition of affairs had lasted for fifteen to twenty years men from North and other sections of the country came here and bought land cheap, and began improving it by the method of dairying and stock raising, and these improved lands will equal any in the State in the production of grain and hay, and I believe I speak correctly when I say that Fairfax and Loudoun counties are to-day pro-

ducing more milk, beef, pork and horses than any other two counties in the State of the same size. During the year beginning June 2d, 1902, and ending June 15, 1903, the records of the clerk's office show that 485 deeds were recorded for the transfer of real estate in Fairfax county, and a majority of the purchasers are from other counties in the State, such as Wythe, Pulaski, Tazewell, Highland, Rockbridge, Augusta, Rockingham, Page, Clarke and Loudoun counties. Farmers are selling their lands in these counties for good prices, and coming here and buying equally as productive lands for less money, and getting the advantages of better prices for their produce, and with the probability of a rapid advance in the value of these lands each year. We enjoy the best of railroad accommodation; the Bluemont division of the Southern Railroad gives us ten local passenger trains a day, and in the very near future we expect to be hauling a great deal of our farm products into Washington and Baltimore on the electric railroads. Our county highways are nearly all level, and usually good, and under our new road law, and the "good roads spirit," among our people, we expect soon to have them very greatly improved. When one travels over this section and sees the miles of trenches and breastworks dug and cast up by those who wore the "blue and gray," it serves to teach us (who were too young to participate in those battles) something of the enormity of the struggle, and we can give thanks to the God of our fathers that our country is at peace, and that the children of the North and the South are living here together in peace and unity, hoping that the awfulness of that struggle may never be repeated.

With this I hand you a picture of a Fairfax farm buildings, which, I trust, will serve to make an impression upon some of your readers, as to what Fairfax has. This farm has 300 acres of highly improved land, and will harvest this year something like two tons of hay per acre on seventy acres. Pastures 40 cows and 10 horses, 75 acres in corn and 20 acres in wheat. Our wheat crop is not well filled this year, but corn promises to be fine. I have had several inquiries as to the best method of applying lime. I will give the experience of some of the best of our farmers on this subject next month.

Fauquier Co., Va.

W. E. MILLER.

PIGS ON RAPE.

On the experimental farm, in one instance, says the *Farmer's Advocate* of London, Ont., six pigs were pastured from August 14th till snow of 1900 on three-sixteenths of an acre of rape. To produce 100 pounds of pork only 269 pounds of meal was required in addition to the rape. The average amount of meal required for 100 pounds of pork is 425 pounds. The use of rape, therefore, saved 156 pounds of meal on

each 100 pounds of pork produced, or about 1,210 pounds of meal saved by three-sixteenths of an acre of rape. All pig weights mentioned are live weight. Many other lots have been fed similarly with similar results. In 1902 sixty pigs were fed on an acre and a half. In addition to the rape pasture about 500 pounds of meal was required for each pig from weaning time to an average of 185 pounds live weight in October or November.

VIRGINIA AS A HOME.

Editor Southern Planter:

Nothing has tended so much to the hindrance of Virginia progress, since her new dispensation or emancipation, than outside misconception of her social status and the diversity of the topography from the breaking of the ocean waves to the crests of the Alleghany mountains. Many English and Northern men have stepped on the trains at Virginia depots who, if they had been content with a quiet, economical country home, and a safe investment in interest-bearing securities, would have left a posterity attached to the soil. The whole, or the greater part of the trouble was that they would farm; would farm under conditions in which the man to the manor born saw failure before himself, then what hope for the greenhorn—a hope vanished with his capital. He thought he could succeed where all else failed. Of course there are exceptions, alas how few! to prove the rule.

Had Virginia been allowed to explain, or rather had the newcomer been open to receive explanation, she would have pointed out the suitability of her Tidewater districts for trucking; of the Piedmont for fruit, and the Valley and mountains at its back for grazing—i. e., the pre-eminence of each of the sections for those prominent enterprises—Pulaski wishes to wager on the weight of a lamb—but will it bet on the size of a fish or water melon? Not but that lambs, melons and fish for that matter can be raised all over Virginia, still to excel they have their sectional partialities. Possibilities are one thing, but well recognized accreditments are safer ground.

Piedmont Virginia is becoming known as pre-eminently a home for those who insist upon as favorable a climate as can be all round got in the Northern Hemisphere of this orb; desire cultured society, and whilst interesting themselves in a country home, look upon farming as an occupation, though not one to be allowed to grow into an anxiety. There are no politics such as drive multi-millionaires to seek peace in Europe; they being in Virginia reduced to mere family squabbles. The lavish and the economic can each comply with their tastes, enjoying the peaceful-

ness of a well-ordered community without its cut and dried feeling, seeing that Virginia offers a field for the pleasure of metamorphosing.

Those who wish to invest in the soil, and are willing and able to hold the plow and milk the cow, will find a much more congenial state of circumstances than twenty-five or thirty years ago in the mixed agriculture districts. White labor is predominating, so there is a congeniality which was lacking. Traditions draw a smile, and if the new comer is wise in his generation he will give more heed to future prospect than expectation founded on past results; for insects, crossing oceans, continents and investigating islands, it would be strange indeed if they shunned the bright lands of fair Virginia. So he who reaps must not only, these times, sow, but fight, if not against the aggrieved savage or wild beast, against the more insidious enemy, with consolation, however, that the whole army of agricultural martyrs are in the fight.

The best and truest point to get a view of modern Virginia is not from statistics, but at local horse shows, where a well dressed, orderly, largely predominating Anglo-Saxon crowd, drawing its support directly from the soil, and not yet thickened by manufacture, is to be encountered. Why, Virginia's quite a pretty country, with its red rolling hills in their many tints, exclaimed an English lady, I expected to find America agriculturally a network of ugly, flat sections, but Virginia farms would make lovely parks.

W. M.

Albemarle Co., Va.

THE POLAND CHINA HOG.

Editor Southern Planter:

There are so few genuine Poland China hogs in the South that the Southern farmer has never been really awakened to his merit as a money maker. The Poland China is undoubtedly the easiest hog to fatten that we have, and consequently the most profitable. In the West they have long since earned for themselves the title of mortgage lifter, and wherever else properly bred and cared for have proven their right to this title. They are good for lard, and equally as good for bacon. To those who have thoroughly tested the bacon of the different breeds of pure bred swine, the fact must be evident that the bacon of the Poland China hog is excelled by none. The Poland China has no superior as a grazer, and at the same time he is quiet; not restless and roughish like some. His general appearance indicates docility. His ears flap, and do not stand erect like those of a jackass, ever on the lookout for a hole to get through

or low places to get over. The Poland China's whole disposition seems to be bent on finding something to eat, and then a place to lie down, snooze and make money for his owner. In my opinion, the South need never hope to furnish its own meat and lard supply until more attention is given to this great breed of swine. If properly bred and cared for it will do for the Southern farmer what it has done for the Western farmer—that is, raise his mortgages and make him contented with his calling; for where there is a big profit there is generally contentment.

Albemarle Co., Va.

X. Y. Z.

COMBINATION AUCTION SALE.

FOR THE DISTRIBUTION OF BREEDING AND OTHER CLASSES OF ANIMALS.

Editor Southern Planter:

It is recognized by all breeders of live stock that in order to produce good animals we must use only good sires of the proper type and bred in proper lines. At certain seasons of the year the breeder and farmer is on the lookout for pure bred stock for breeding purposes, and naturally prefers to buy in a market where he has a large and varied choice without huckstering, the seller also benefitting by getting the full value of his animals as determined by public competition. The combination sale we held July 30th we hope to follow up periodically, and though we looked for no great success at starting, yet at the recent sale nine months' Polled Angus Bulls made up to \$90, 2 months' Berkshire pigs to \$9, and Hampshire Down rams from \$25 for two shear sheep to \$7.50 for lambs. We had calls for Herefords and Shropshires, which, on account of the heat of the weather, though entered, were not on hand.

Orange Co., Va.

MACON & Co.

We should like to see more of these public sales in the various sections of the South. They would help farmers and stock breeders.—ED.

GOVERNMENT WHITEWASH.

Slack half a bushel of good, fresh lime in boiling water, keeping it covered during the process. Strain it and add a peck of salt dissolved in water, three pounds of ground rice boiled to a thin paste, half a pound of powdered Spanish whiting and a pound of clear glue dissolved in warm water. Mix these well together, and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace, and put on as hot as possible. This wash is nearly as durable as paint on wood or stone in the open air.

THE
Southern Planter

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J. F. JACKSON,
Editor and General Manager.

B. MORGAN SHEPHERD,
BUSINESS MANAGER.

TERMS FOR ADVERTISING.
Rate card furnished on application.

TERMS FOR SUBSCRIPTION.

THE SOUTHERN PLANTER is mailed to subscribers in the United States and Canada at 50c. per annum; all foreign countries and the city of Richmond, 75c.

REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

ALWAYS GIVE THE NAME of the Post-Office to which your paper is sent. Your name cannot be found on our books unless this is done.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Criticism of Articles, Suggestions How to Improve THE PLANTER, Descriptions of New Grains, Roots, or Vegetables not generally known, Particulars of Experiments tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

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RICHMOND, VA.

DETAIL INDEX TO ENQUIRER'S
COLUMN.

Hogs Ailing	563
Cow Peas and Weevil—Pollinizer for Strawberry—Crimson Clover Seed	563
Sowing Clover with Wheat.....	564
Sick Turkeys	564
Unhealthy Cattle—Hollow Tail.	564
Cassava	565
Salsify—Celery Seed	565
Plant for Name	565
Preparation for Alfalfa.....	565
Saving Horse Manure.....	566
Storing Cabbage	566
Alfalfa—Land Plaster	566
Alfalfa—Mulching Potatoes	567
Ring-Bone—Fleas	567
Mellilotus Alba	567
Sod for Chickens—Milk Fever..	567
Hogs with Toothache—Milking Cows	568
Damages for Service by Scrub Bull	568

PUBLISHER'S NOTES.

TO ADVERTISERS.

All advertisements and matter pertaining to advertising *must* reach us by the 25th of each month. Please bear this in mind.

Liberal Subscription Offer.

To induce non-readers of the SOUTHERN PLANTER to become subscribers, we beg to announce that all new subscriptions received between this time and December 1st will be given the remaining numbers of this year free. In other words, 50 cents will pay for a subscription from now until December 31, 1904. You will, therefore, get four, three, two or one month free, depending upon the time you send in your subscription. If you wait a month, don't ask us to send you this month's or last month's issue. We cannot supply it even if you wish to pay for it. We are having a greater demand for sample copies than we can supply, however hard we try. This demand takes every copy we have except what we reserve for our files.

Our regular subscribers, upon whom we have called so many times, will confer a favor, which will be reciprocated at any time, if they will bring this offer to the notice of their friends who are not subscribers to the SOUTHERN PLANTER.

PIEDMONT REAL ESTATE.

We acknowledge receipt of the catalogue of Macon & Co., real estate agents and auctioneers, Orange, Va. From glancing through it, we notice many desirable and valuable properties listed. Any one contemplating locating in this splendid section had better get this list.

Mention the *Southern Planter* when corresponding with advertisers.

Wood's Seeds

FOR FALL SOWING.

Farmers and Gardeners who desire the latest and fullest information about

Vegetable and Farm Seeds

should write for Wood's New Fall Catalogue. It tells all about the fall planting of Lettuce, Cabbage and other Vegetable crops which are proving so profitable to southern growers. Also about

Crimson Clover, Vetches,
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FREE. Best varieties in U S. True to variety. Clions cut from bearing trees by member of firm. Full descriptive Catalogue of ALL FRUIT trees, free.

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STATE AGRICULTURAL AND MECHANICAL COLLEGE
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A SOUTHERN INSTITUTE OF TECHNOLOGY.

Forty-five instructors. Thoroughly equipped shops, laboratories and infirmary. Farm of four hundred acres. Steam heating and electric lights in dormitories. Degree courses in Agriculture, Horticulture, Civil, Mechanical and Electrical Engineering, Applied Chemistry and General Science. Shorter courses in Practical Agriculture and Practical Mechanics. Total cost of session of nine months, including tuition and other fees, board, washing, text-books, medical attendance, etc., about \$195. Cost to State students about \$165. Next session begins September 21, 1903. For catalogue and other information, apply to

J. M. McBRIDE, Ph. D., LL. D., President.

**Alfalfa Bacteria
Infected Soil**

Can be obtained from Ewell Farm Experimental Plot. A perfect stand three years of age, abundantly supplied with root nodules. Price \$1.00 per 2 bus. burlap bag, weight about 150 lbs., f. o. b. Ewell's Station, Tenn.

GEO. CAMPBELL BROWN,
Spring Hill Tenn.

HOW'S THIS?

We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's Catarrh Cure. F. J. CHENEY & Co., Props., Toledo, O.

We, the undersigned, have known F. J. Cheney for the last 15 years, and believe him perfectly honorable in all business transactions, and financially able to carry out any obligation made by their firm.

WEST & TRUAX, Wholesale Druggists, Toledo, O.

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Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75c. per bottle. Sold by all druggists. Testimonials free.

Hall's Family Pills are the best.

WITH THE ADVERTISERS.

Dr. Owsley wants a working farm manager.

Mr. J. B. Gray, the well-known Poland China breeder, starts the season's advertising with this issue.

Farmers contemplating sowing alfalfa can get some infected soil from Col. Geo. C. Brown.

The Ury Stock Farm is offering its well bred Holsteins again this fall. Look up the ad.

Macbeth Lamp Chimneys, the kind that don't break, are offered our readers elsewhere in this issue. Get the Index.

O. I. C. Pigs are offered by Mr. F. S. Michie, Charlottesville, Va.

The Bona Vista Nurseries have their regular announcement in another column. You can get some good stock here.

Mr. Walter Whately wants to sell his farm, situated in the best fruit section of the State.

Some nice Dorsets and Herefords can be had of H. Armstrong, Lantz Mills, Va. These are among the most popular sheep and cattle breeds.

Readers interested in budded and grafted paper shell pecan trees should write to B. W. Stone & Co., Thomasville, Ga.

Knight & Jetton, the well-known Tennessee breeders, are offering jacks, stallions, Durham and Hereford cattle.

The International Stock Food Co. has its usual announcement on another page. Have you sent for the valuable stock book this company sends out free?

J. S. Moore's Sons ad should catch the eye of all housekeepers. Remember the "Moore" quantity and quality you get at this house.

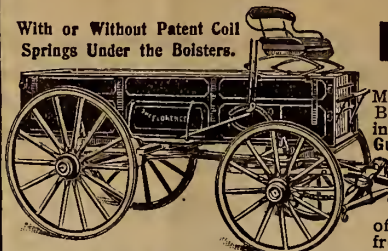
That riding disc harrow offered by the Superior Division in this issue is all right.

Sikes Mfg. Co. extends its contract for another period. Have you investigated the hay press they offer?

Rosemont Herefords are advertised for the first time in this issue. Look

22 Years The BEST WAGON

With or Without Patent Coil Springs Under the Boilers.



That is the record of the celebrated
FLORENCE WAGON
FOR ALL FARM PURPOSES.

Many western farmers will have no other. Before you buy any wagon see the FLORENCE in justice to yourself. Every Florence is fully Guaranteed. Our nearest agent will show you the wagon. If no agent near you, don't buy any other wagon, but send for our free illustrated catalogue, copy of our periodical, "The Florence Waggin' Tongue," and our low offer and liberal terms, to supply you direct from the factory. Write today to Dept. C.

FLORENCE WAGON WORKS,

FLORENCE, ALABAMA.

LEE'S PREPARED AGRICULTURAL LIME

The Old Reliable for WHEAT, OATS, CLOVER and OTHER GRASSES; has stood the test for twenty-five years, being composed principally of Hydrate of Lime, Sulphate of Lime and Potash.

OUR SPECIAL WHEAT FERTILIZER.

We put this brand on the market only a few years ago, and have had very flattering results. The best farmers say that they get better STAND and GROWTH of GRASS and CLOVER from it than from other fertilizers. This we can confidently recommend for CORN-LAND or any other land of fair fertility.

FRUIT TREES.

Maj G. A. Barksdale of Richmond, Va, has used our PREPARED LIME on his fruit trees, and says it has made wonderful improvement, both in the condition of the trees and quality of the fruit.

PLAIN SHELL LIME

Constantly on hand at lowest prices.

No. 1 WOOD-BURNT LIME

In car lots at lowest market price from kilns.

If you wish to IMPROVE your land, use a ton to four acres for WHEAT and CLOVER, or if you wish to seed it for other GRASSES where the land is in good condition, use the same quantity and it will give you a good STAND and GROWTH of GRASS. For reclaiming POOR land, where there is little or no VEGETATION, COVER naked places with litter from the barnyard or forest, using the same quantity, and sow winter OATS and CLOVER.

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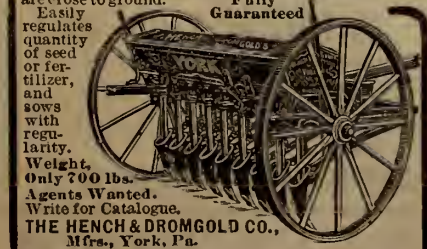
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BICKFORD & HUFFMAN DIVISION
American Seeding Machine Company,
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GRAIN and FERTILIZER DRILL

The YORK FORCE FEED DRILL combines lightness with strength. Most complete drill made. No complex gearing to get out of order. Boxes are close to ground.



Weight, Only 700 lbs. Agents Wanted. Write for Catalogue. THE HENCH & DROMGOLD CO., Mfrs., York, Pa.

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Strictly new, perfect, Semi-Hardened Steel Sheets two feet wide, six feet long. The best Roofing, Siding or Ceiling you can use. We furnish nails free and paint roofing, two sides. Comes either flat corrugated or "V" crimped. Delivered free of all charges to all points in U. S. east of Mississippi River and north of Ohio River at \$2.25 PER SQUARE. Prices to other points on application. A square means 100 square feet.

Write for Free Catalogue No. 166 on material bought from Sheriffs and Receivers' Sales. CHICAGO HOLE-WECKING CO., W. 85th and Iron Sts., Chicago.

up the ad and send for circulars, prices, etc.

Quietude Stock Farm is offering Shorthorns. Mr. T. J. Thompson, the proprietor, is well known to numbers of our readers.

Southdown and Hampshiredown Sheep and Essex Hogs can be bought of Mr. L. G. Jones, Tobaccoville, N. C. Parties desiring to buy, sell or rent farms will do well to look up the Real Estate Advertisements in this issue.

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Wise Man's Wagon.

The man who has had experience in running a wagon knows that it is the wheels that determine the life of the wagon itself. Our **ELECTRIC STEEL WHEELS** have given a new lease of life to thousands of old wagons. They can be had in any desired height, and any width of tire up to 3 inches. With a set of these wheels you can in a few minutes have either a high or a low down wagon. The Electric Handy Wagon is made by skilled workmen, of best selected material—white hickory axles, steel wheels, steel hounds, etc. Guaranteed to carry 4000 lbs. Here is the wagon that will save money for you, as it lasts almost forever. Our catalog describing the uses of these wheels and wagons sent free. Write for it. **ELECTRIC WHEEL CO., BOX 146 QUINCY, ILLINOIS.**

ELECTRIC

WE LEAD THE WORLD

We are the largest manufacturers of Grooved and Plain Tire Steel Farm Wagon Wheels in America. We guarantee our patent Grooved Tire Wheels to be the best made by anybody anywhere. Write us.

HAVANA METAL WHEEL CO.
 HAVANA, ILL.

WE'LL PAY THE FREIGHT and send 4 Buggy Wheels, Steel Tire on, - \$7.25; With Rubber Tires, \$15.00. 1 mfg. wheels 3/4 to 4 in. tread. Top Buggies, \$28.75; Harness, \$3.60. Write for catalogue. Learn how to buy vehicles and parts direct. Wagon Umbrella FREE. W. V. BOOB, Cincinnati, O.

THE IMPROVED SCREW STUMP PULLER

Write for Prices.

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HERCULES STUMP PULLER

Clears an acre of heavy timber land each day. Clears all stumps in a circle of 150 ft. without moving or changing machine. Strongest, most rapid working and best made.

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MANLOVE SELF OPENING GATE



Saves time and prevents accidents. Send for our book, "What Our Customers Say" with home views.

Catalogue free—
MANLOVE GATE CO.
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Genuine Spiral Spring Wire FENCES AND GATES



If your dealer does not have our goods in stock you can buy direct at Manufacturers' Price. Write for Catalogue and secure agency.

INTERNATIONAL FENCE AND F. CO.
Columbus, Ohio.


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Page Hog Fence

holds the whole litter. It's closer woven.
PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

RIFE HYDRAULIC ENGINE



is without question the engine for the farm or country residence. Pumps more water than any ram and does it without attention. Never stops. It pumps 30 ft. high for every foot of fall. Sold on 30 Days' Trial. Send for free catalogue.

RIFE ENGINE CO.
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PIPE. Good second-hand Wrought Iron in sizes from one half to twelve inches diameter. It is complete with threads and couplings. 1 inch, per foot, \$ 1.4 cts. 1 1/4 inch, per foot, 4 1-4 cts. We handle all kinds of well casing. Write us your wants in the pipe line. We have all kinds of supplies of this character. Write for Free Catalogue No. 166.

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"ELI" HAY BALERS.

38 styles and sizes.



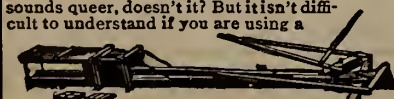
The world's standard.

Work fastest, bales are tightest and shapeliest. Load easy to best advantage. Balers that endure, insure safety and facilitate work. Steel and wood frames, horse and steam powers. Ell catalogue free.

Collins Plow Co., 1185 Hampshire St., Quincy, Ill.

Pressing Hard Easy

sounds queer, doesn't it? But it isn't difficult to understand if you are using a



RED RIPPER Hay Press

It bales tight bundles, large or small, and does it with the least amount of strain on the horse. The Red Ripper has been twice entered in competition with other presses, both times at the Georgia state fair, where it was awarded first premium. Dealers who handle the Red Ripper say that it just drives other hay presses out of the market. The lowest priced press on the market, and costs less than others to operate. Progressive, economical farmers will want to know more and can be sending for our new Catalog No. 433. Distributing points, Baltimore, Memphis, Cincinnati.

Address **SIKES MFC. CO., Helena, Georgia.**

EMILY'S CHARGE.
(A serial story by Mary Washington Early.)

CHAPTER III. A BID FOR ALICE.

Mrs. Henningham had a city cousin, who, in the days of her prosperity, had been very fond of visiting her, spending a part of every summer at "Soldier's Joy," on her way to the springs. Indeed, in those days of ease and plenty, "Soldier's Joy" was almost as pleasant a resort as the springs. The host and hostess, and the neighbors surrounding them, were genial, refined and cultivated, and practiced the delightful whole-hearted, hospitality characteristic of old Virginia.

The cousin I speak of was a Mrs. Vaughan, a handsome and brilliant woman, one of the leaders of society in the city where she lived. No two natures could have been more dissimilar than hers and Mrs. Henningham's. The latter admired her beauty and grace, and she felt an indefinable charm about Mrs. Henningham's restful nature, though she felt some pity and contempt for her simplicity, her ignorance of worldly matters, and her defective judgment about point lace. Mrs. Vaughan had no children, but this seemed to be no cross to her, as she did not possess the maternal instinct strongly, but openly avowed that she felt no attraction towards any but a beautiful and sprightly child. As Alice Henningham was one of this kind, her cousin Rosalie made a great pet of her.

There was another lady who divided the social sway with Mrs. Vaughan in the city where she lived, and the rivalry between them was quite sharp and bitter. Mrs. Vaughan kept well apace with Mrs. Melville (her rival) in personal attractions, and in the elegance of her dress, establishment and entertainments, but there was one point in which Mrs. Melville possessed the advantage over her. She had a pretty young daughter, whom she was aiming to make the most stylish and accomplished young woman in the city, and though her daughter was only twelve, Mrs. Melville was already looking forward to the sensation she would produce when launched into society, and the credit she would reflect on herself. Some remarks of hers on the subject being repeated to Mrs. Vaughan, together with a boast that in a few years her house and entertainments would have an ornament which the latter did not possess, that lady's resentment was aroused, and she commenced thinking how desirable it would be, in a few years, to have a beautiful and brilliant young daughter to help do the honors of her home. Mrs. Vaughan was now forty, and she thought that by the time she was 46 or 48, it would be a pleasant thing to have a handsome, accomplished young girl to launch forth, one whom she could claim and possess as her own, and who would reflect lustre on her. While she was revolving this in her mind, she heard the news of Mrs. Henningham's death,

EACH LITTLE WIND that blows is turned into value for the man who pumps or generates power for grinding, sawing, etc., with the



Freeman Steel Windmills.

Mills with genius to work and strength to stand. Full line high grades with special four post angle steel tower. Also Feed Cutters, Wood Saws, Corn Shellers, etc. Write for catalog 110

S. Freeman & Sons Mfg. Co., Racine, Wis.


\$47.50 OUR GENUINE **SPLIT HICKORY SPECIAL TOP BUGGY**



Issold direct from the makers at \$47.50 and **30 DAYS' FREE TRIAL** allowed before acceptance. This is YOUR chance. Just drop postal for catalogue.

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Station 41

The WEBER 14 H. P. Gasoline Engines for running grinders, shredders, cutters, threshers, etc. Free catalogue gives all sizes. Weber Gas & Gasoline Engine Co., Box 122, Kansas City, Mo.



Self-oiling main bearing

WELL DRILLING MACHINES

The most successful money-making machines ever made. Also machines for boring wells with augers by horse power. Write us if you mean business.

Loomis Machine Co., Tiffin, Ohio.

CULTIVATORS BELOW COST!

Roofing Materials.—Tin plate, iron roofing, paper roofing, nails, hardware. Carriage and wagon materials. Cook stoves etc. Don't write us unless you want the best at the **Lowest Price.**

HARRIS HARDWARE CO., 409 E. Broad, Rich'm'd, Va.

TO EXCHANGE

A STATIONARY BOILER 12X3 FT., 32 flues, (said to be 30 h. p.) for a portable boiler of 12 to 15 h. p.

WM. TOWNES, Cuscowilla, Va.

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4 Horse GASOLINE ENGINE, in first class order.

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100,000 2-yr. old Asparagus roots, 5 varieties. A special rate of \$3.50 per 1000 for 2 mos. for BARR'S, PALMETTO, CONOVER.

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A large general assortment, including WINESAPS and YORK IMPERIALS.

Splendid Assortment of Ornamental, Shade and Fruit Trees.

EGGS from B. P. Rocks, Light Brahmas, Brown Leghorns at \$1.00 per 13.

WRITE FOR OUR CATALOGUE.

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SEED OATS FOR SALE

—1,000 BUSHELS—

VIRGINIA WINTER GREY or TURF.

These oats were sown in the fall, are of a superior quality and EXTRA HEAVY. Grown in Albemarle county, in the Piedmont section of Virginia, where the best seed oats obtainable are produced. Address

WOODSIDE STOCK FARM,

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..RELIABLE SEEDS..

For Fall Sowing.

Crimson Clover, Vetches, Rape, Rye, Barley, Seed Oats, White Pearl and other Onion Sets, Cabbage, Lettuce, Radish and Turnip Seed and all varieties of Grain, Grass and Garden Seeds.

Write us for prices.

DIGGS & BEADLES, Seedsmen,

1711 E. Franklin St., Richmond, Va.

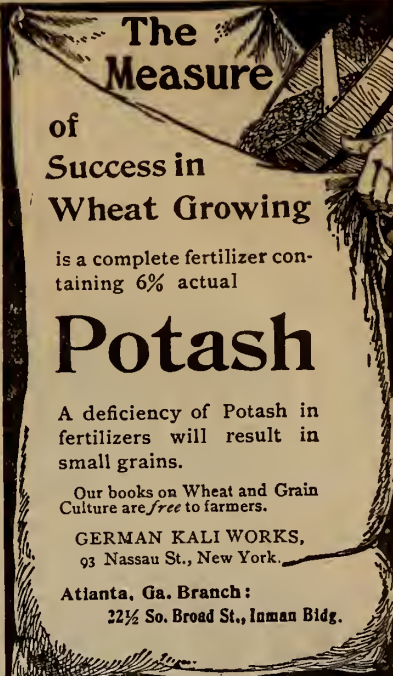
STOP THAT RATTLING, TIGHTEN YOUR OWN BUGGY TIRES. No heating; does not mar the paint; any one can operate. Machine complete with 100 washers sent on receipt of \$2.00. Guaranteed to do the work. Your money back if not as represented. RAPID TIRE TIGHTENER CO., Station F., Toledo, Ohio.

and immediately it flashed over her: "This is my chance! The children are left orphans and poor, and they will jump at any proposition to adopt one of them. So I will just take Alice, and I will trump Mrs. Melville and make her ache with envy when Alice makes her debut. Who would look at that wax doll, Lizzie Melville, with her pale blue eyes and lint white locks, beside Alice, with her rare style of beauty, her golden hair and brilliant brown eyes?"

Fired with the idea, Mrs. Vaughan immediately wrote to Emily, proposing a visit of a few days. Emily had not seen her for several years, but remembered well how she had been dazzled by her in childhood and early girlhood. She had looked upon her as a queen or a fairy, altogether removed from the humdrum routine of common life. Her ribbons and gloves and trinkets were all so lovely and tasteful, and she herself so sparkling, graceful and charming.

On the appointed day, as the packet boat pursued its leisurely way up the canal, its unmusical horn blown loud and long, as it came in sight of "Soldier's Joy," announced that a visitor to that place was on board. Mrs. Vaughan arrived, freighted with toys and confectionery for the young ones, over whom she cast the same glamour she had exercised over Emily in earlier days. Finding Alice entirely satisfactory in all her points, she proposed to Emily to adopt her, enumerating the many advantages she could give her, the accomplishments she would have her taught, the elegant clothes she would get her, and the gay and fashionable society into which she would launch her. Now Emily, though not Puritanical enough to decry these things as evil in themselves, could not help seeing that in the present case they had become evil because they constituted the chief aim and delight of her cousin Rosalie's life, instead of being subordinate. Mrs. Vaughan, with all her elegance and polish, led essentially "vulgar days" according to Mrs. Browning's definition at the term, although Mrs. Vaughan would have been indignant, had any such charge been brought against her, for she could not associate any such term or idea except with uncouth, rustic people, who did manual labor, wore coarse clothes, and ate with their knives. And yet any life, whatever may be its external aspects, is essentially a vulgar one, without some aspiration and seeking after the spiritual and eternal.

Though Mrs. Vaughan's existence was a brilliant one, outwardly, it was far from being truly happy and satisfying. There did not exist between her husband and herself that close and tender union which Providence intends as the crowning blessing of human life. Quiet, domestic enjoyment was unknown in their household. Mr. Vaughan was a grave, quiet man, who buried his disappointment within himself, and devoted himself assiduously



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Success in
Wheat Growing

is a complete fertilizer containing 6% actual

Potash

A deficiency of Potash in fertilizers will result in small grains.

Our books on Wheat and Grain Culture are free to farmers.

GERMAN KALI WORKS,
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AGRICULTURAL AND BUILDERS' LIME

Send for Circulars and Price-List.

FELLSWORTH LIME WORKS,
REEVES CATT, Agent,
Bodley, Augusta County, Virginia.

Peach and Apple Trees,

BONAVISTA NURSERIES, Greenwood, Va.

We offer a fine lot of choice trees for Fall and Spring planting

Our apple trees are the best—Wine Sap, Mammoth Black Twig, York Imperial and Albemarle Pippin, all perfect and well grown trees.

Our peach trees are the standard sorts, Stump, Elberta, Bilyeu's (Comet,) Wonderful, Champion, Globe, Picquet's Late, Albright's Winter, Crawford E. & L., etc.

We send out none but good trees and have never had a complaint made by any purchaser of our stock. Order soon, especially Peaches, as good trees will be very scarce this season.

CHAS. F. HACKETT, Manager.

Strawberry Plants

All grown in fresh rich ground, healthy, well-rooted plants that will please you; over 30 kinds to offer Raspberry plants and Peach trees also; see us before you buy. Our stock has been thoroughly inspected and found free from any disease.

Address JOHN LIGHTFOOT

Sherman Heights, Tenn.

A neat Binder for your back numbers can be had for 25 cents. Address our Business Office.

Popping of lamp-chim- neys is music to grocers. MACBETH.

If you use a wrong chimney, you lose a good deal of both light and comfort, and waste a dollar or two a year a lamp on chimneys.

Do you want the Index? Write me.

MACBETH, Pittsburgh.

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No place in the United States can a man do so well at farming, for the money invested, as in Virginia. Lands are cheap; climate good, and the best of markets close at hand. It is the State of all others, for a comfortable all the year round home. The James River Valley Colonization and Improvement Company offer superior advantages to land purchasers. For free 36 page land pamphlet, address

W. A. PARSONS, Vinita, Va.
C & O Main St. Depot, Richmond, Va.



CASH FOR YOUR FARM

OR ANY REAL ESTATE.
No matter where located. Send description and lowest cash price. I succeed by giving personal attention. Interesting and valuable particulars FREE. Write today. Bank references.

WILLIAM T. BROWN, 114 Brown Law Bld'g, Lancaster, Pa.

To HOMESEEKERS. "THE BUSINESS OF FARMING IN VIRGINIA."

Is the title of a new pamphlet issued by the Norfolk and Western Railway Company. We will gladly mail you a copy.

W. B. BEVILL, PAUL SCHERER, Agt.,
G. P. A., Lands and Immigration,
Roanoke, Va.

"PIEDMONT And all that it Implies."

Good land, climate, markets, shipping facilities, churches, schools, good health, moderate prices, easy terms.

MACON & CO., - Orange, Va.

to business, whilst Mrs. Vaughan devoted herself to society and gayety as a drunkard to liquor, or an opium eater to the fatal drug. In view of all these things, Emily could not think that any advantages Mrs. Vaughan offered Alice were a sufficient offset to the drawbacks of the situation. Even a few days under her influence had made some change in Alice, who was beginning to be vain and self-conscious. Her childish heart was readily fired by the allurements her cousin Rosalie held out. The daily visits to the confectioner and toy shops, beautiful new clothes and trinkets, etc., and Alice was in a doubtful state between relief and disappointment when her sister finally declined Mrs. Vaughan's offer. The lady, on her part, was so annoyed and chagrined that nothing but a tony bearing in society prevented her from giving vent to a burst of anger. Emily could have assigned no reason for her refusal that would have seemed rational, valid or tangible to Mrs. Vaughan, or to the outside world generally. They would have thought her reasons shadowy, fanciful and overstrained. She did not even attempt to state them, but simply said, whilst thanking Mrs. Vaughan, that it had been her mother's cherished wish, and was her own, to keep her brother and sister with her, if possible.

"But," exclaimed Mrs. Vaughan, her chagrin getting the better of her polish. "do you think it better for them to starve under your charge than to thrive under that of some one else?"

"I do not look forward to such an alternative," said Emily. "I am willing and able to work for them, and do not doubt I shall be able to maintain them in a frugal way."

Again she had to submit to being called Quixotic and Utopian. But she listened to ridicule as well as to arguments and appeals without having her resolution shaken, so clearly did she see that her cousin's influence and training would not foster in Alice a love of the highest and best things, but would rather tend to suffocate and deaden these feelings.

(To be continued.)

PAGE FENCE AGE.

This is the title of the bi-monthly organ of the Page Woven Wire Fence Co., Adrain, Mich. It is very interesting and breezy and enthusiastic in presenting the claims of this well-known fence. It is also kind of a clearing house for the satisfied users of Page Fence to meet (in type) and exchange experiences and renew allegiance to their old standby.

MAPLEMONT'S MONTHLY MENTIONS.

Maplemont, Albany, Vt., issues a little bulletin every month, under the above title. It gives a complete list of all collies for sale, together with their breeding. Look up their ad.

BEARING APPLE ORCHARD in "Piedmont" Va. Rich black loam, typical "pippin" land. Suitable Albemarle pippins, and other highest grade apples 1,000 trees planted nine years: good crop this season. Covers side high mountain; but remarkably smooth; admirably adapted orchard work, and spraying. Wagons run all over. Large commercial orchards adjoin. Two bold mountain streams. Four miles from depot; good road. Drive city two hours. Picturesque; good socially. 4 room house; \$2,500; half cash. Very desirable. For details, address
SOUTHERN FARM AGENCY, Lynchburg, Va.

WE HAVE A LARGE LIST OF FRUIT, POULTRY and TRUCK FARMS

Ten, Fifty and One Hundred Acres each, with good buildings, close to steam and trolley lines, easy access to the city. Also

GRAIN AND STOCK FARMS
From 100 to 1,000 acres at low prices all the way from \$5 to \$50 per acre. Write for Catalogue.

THE VIRGINIA LAND AGENCY, Richmond, Va.
J. R. HOCKADAY, Manager.

IF YOU WISH TO SELL —OR BUY— VIRGINIA LANDS

Communicate with us. Write for free "Virginia Real Estate Journal," containing many splendid bargains.
R. B. CHAFFIN & CO., Inc.,
No. 1 N 10th St., Richmond, Va

I Can Sell Your Farm

or other real estate, no matter where it is or what it is worth. Send description, state price, and learn my wonderfully successful plan. W. M. OSTRANDER,
376 North American Building, Philadelphia

100 Acre Farm,

1 mile from Crewe, Va, on N. & W. R. R. FOR SALE.

All information given by
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GOOD PAYING FRUIT FARM

For sale, in fruit section of Albemarle county near Crozet, Va. 100 acres, land and buildings in excellent condition, apply for particulars to

WALTER WHATELY, Crozet, Va.

FINE FARMS in the great fruit grain and stock section of VIRGINIA. Best climate and water in the U. S. Near great markets, with best educational advantages. For further information, address
ALBEMARLE IMMIGRATION CO.,
SAM'L B. WOODS, Pres. Charlottesville, Va.

VIRGINIA FARMS

\$3 PER ACRE AND UPWARDS.
EASY PAYMENTS. CATALOGUE FREE.
GEO. E. CRAWFORD & CO., Richmond, Va.
Established 1875.

VIRGINIA FARMS

All prices and sizes. Free list on application.
WM. B. PIZZINI CO., RICHMOND, VA.

FARMS FOR SALE!

Farm No. 2.

Contains 265 acres; 215 under cultivation; 50 acres original oak and hickory. Fronts on the pike running from Winchester to Alexandria; five miles from railroad; one-half mile from proposed electric railroad. Excellent six-room dwelling house, with broad halls, standing in a large, nicely-shaded blue-grass lawn; all necessary outbuildings; land chocolate clay, with stiff clay subsoil; all level, but rolling enough to drain well; fine for wheat and grass; well watered. Owner contemplates making improvements. But if sold before, price \$25 per acre, on easy terms.

No. 4.

Contains 100 acres, all under cultivation, and in good condition. Good frame dwelling and all necessary outbuildings in good condition. Situated on the pike, with market wagons passing every day, paying Washington city prices for produce. Splendidly situated for fruit, poultry, dairy and trucking. Price now, \$2,000, on easy terms.

No. 10.

This farm contains 100 acres—40 acres in white oak, chestnut and pine; 60 acres in a high state of cultivation. In lots of from 8 to 12 acres in a field; well fenced. Especially adapted to fruit and wheat and clover. Has a nice 8-room house, two porches, new barn, double grainary, wagon drive and cow sheds. A good 4-room tenant house. Situated 2½ miles from station on main line of Southern railroad; 5 miles from county seat of Fairfax county. Price, \$20 per acre.

No. 11.

Contains 315 acres in high state of improvement. Large frame dwelling, 10 rooms, 2 large cattle barns, and all necessary farm buildings in good repair. Land watered by spring branches. Situated in aristocratic neighborhood. Convenient to depot and to Washington market. Price, \$50 per acre.

No. 12.

A desirable farm of 96 acres, all under cultivation. Situated in upper Fairfax county, Va., 22 miles from Washington, D. C., by railroad; 6 miles from station on Blument Division of the Southern railroad; fronting on a Macadamized pike leading into Washington. A substantial dwelling house with five rooms; stable and granary. A large orchard of apples and peaches in full bearing. Land all in good state of improvement and is productive; fine for wheat and grass. One mile from village with post-office, stores, churches, canning factory and mill. Water by spring branch, well and cistern.

Market wagons pass this home every

day, paying cash for all country produce. Price of farm \$1,800, on easy terms.

No. 13.

An excellent little farm in lower Loudoun county, Va. Contains 117 acres; 90 under cultivation, balance in hardwood timber. Land is chocolate clay and loam with a stiff clay subsoil. Adapted to grain and grass. Has a new 9-room dwelling, with a fine cold well at the back door; good barn, 35x40; large wagon and machine sheds and granary. Situated 4 miles from railroad station, 20 miles from Washington, D. C. About 100 apple and peach trees in bearing. Land is gently rolling and well drained. Price \$27.50 per acre, on easy terms.

W. E. MILLER,
Herndon, Va.

MIDWAY HERD OF POLAND CHINAS.

Mr. J. F. Durette, Birdwood, Albemarle county, Va., issues a neat little folder giving a brief description of the Midway Herd, of which he is the owner. He also publishes numerous testimonials from his customers showing that his hogs are all and more than he claims for them. Look up his advertisement elsewhere and send for the folder.

BACK NUMBERS WANTED.

The library of Congress is very anxious to obtain the numbers mentioned below to complete its files of the SOUTHERN PLANTER: Vol. 18, No. 12, December, 1858 (in original covers). N. S., Vol. 1, Nos. 1-5, February-June, 1867. Vol. 41, Nos. 4-6, April-June, 1880. Vol. 43, Nos. 9, 11, May 15, June 15, 1882.

If any of our readers having the above or any one or more of them, and will part with them, kindly communicate with us or with Mr. Herbert Putnam, Librarian, Washington, D. C.

"SLIP SHUCK."

We invite particular attention to the advertisement elsewhere in this issue headed as above. It refers to a machine built by the Keystone Co., Sterling, Ill., especially for Southern corn growers. It is not a husker, so must not be confused with that well known Keystone product. It is essentially a shredder, and the only one of its kind. Look up the ad and send for further information regarding it.

GRADE ANGUS CATTLE.

Mr. A. L. French, Fitzgerald, N. C., the well-known breeder of Aberdeen-Angus cattle, announces in another column his proposed visit to the mammoth "X. I. T." Ranch in the Pan Handle of Texas for the purpose of purchasing a lot of grade Angus heifers for himself. He also solicits commission orders for others. Kindly look up this ad and see just what Mr. French has to say. He can give excellent references, and his long experience with this breed will enable him to make good selections for his customers.

Why Not Get the Best?

Pierce's Celery Compound

for Constipation, Dyspepsia, Malaria and Chills and Fevers, and a general tonic tablet.

Send for free sample, its costs you nothing to try the best family medicine on earth.

AGENTS WANTED.

NATURE'S REMEDY CO.,

WASHINGTON, D. C.

THE KEELEY INSTITUTE

GREENSBORO, N. C.
for the treatment of THE LIQUOR, OPIUM, MORPHINE and other Drug Addictions. The Tobbacco Habit, Nerve Exhaustion

Consulting Entomologist

A. Arsene Girault,

CARE ALLEGHANY ORCHARD CO.,

Paw Paw, W. Va.

Answering in detail, accompanying, where possible with specimens and explanatory notes; life-history a specialty; charges low. Not a bureau of information. Write at once and worry me.

WANTED.—A THOROUGHLY COMPETENT working foreman on 400 acre farm. Must understand plain gardening. Must be a man of temperate habits and a hustler. Man with boys old enough to work on farm preferred. Have good five room house. Good wages. Best of references required, address DR. OWSLEY, Greenwood, Albemarle Co. Va

WANTED

By an experienced farmer, a position as manager on large farm. Can take charge at once. Best references given. Address "FARMER," R. F. D. No. 5, Richmond, Va.

Truck Farmer Wanted.

I want a first class truck farmer, (German preferred) with satisfactory reference, to run my truck farm in N. C. for wages or division of profits.

W. M. CORBETT, Jr., Olga, N. C.

SOUTHWESTERN VIRGINIA

BLUE GRASS FARMS and MINERAL LANDS.

Send for Free Real Estate Bulletin.

Southwestern Va. Land Agency, Wytheville, Va.

Go South.

For full particulars write
A. JEFFERS,
Norfolk, Va.

MARK YOUR STOCK.

.....USE THE.....

KENTUCKY ALUMINUM EAR LABEL

Made by F. H. JACKSON & Co., Winchester, Ky
Write to them for free samples.

Little Chicks

thrive when fed on our

BABY CHICK FOOD.

is a perfect balanced food. Send for free sample and our large illustrated catalog of POULTRY SUPPLIES.

INCUBATORS and

BROODERS.

FANCIERS' SUPPLY CO.,
517-519 West Broad St.,
Richmond, Va.

EVERYTHING FOR THE FANCIER.

SPECIAL SALE

Pen, very fine Barred Plymouth Rock chickens, as follows:

8 3/4 full stock 1 year old hens, my own raising; 1 thorough-bred hen from S. B. Johnson yards; 1 thorough-bred cockerel, my own raising. These are very fine birds, beautifully marked. They are well worth \$15.00, but to sell quickly will take \$12.00. This is a rare opportunity.

PIEDMONT POULTRY PLACE,

Miss E. Callie Giles, Prop. Whittle's Depot, Va.

32 Varieties Best Poultry

Reduced price on eggs bal. of season. Get my fine catalog, is free for stamp. Many breeding birds to offer, I can please you

in either old or young stock.

JNO. E. HEATWOLE, Harrisonburg, Va.

BROWN LEGHORNS.

Young stock for sale in

Fall. Prices reasonable.

White Plymouth Rocks.

R. W. HAW, Jr., Centralia, Va.

PIT GAMES:

Black Devils and Red Horses.

These cocks won 90 per cent of battles fought in 1901 and 1902 and have never lost a battle when gameness and cutting qualities could win. Choice lot of young and old stock for sale.

THOS. W. JARMAN, Yancey Mills, Va.

Barred Plymouth Rocks.

Some especially fine cockerels
FOR SALE.

Berkshire Hogs.

W. G. McLEAN, Maxton, N. C.

WANTED!

ALL KINDS OF

LIVE WILD BIRDS AND ANIMALS

Particularly Deer, Wild Turkeys, White Squirrels, Ducks, Swans, Bob White Quail, Grey Squirrels, Etc.

CECIL FRENCH,

718 Twelfth St. N. W., Washington, D. C.

GOOD HOUSEKEEPING.

WAFFLES.

Three cups of flour, one cup of meal, three cups of buttermilk, two eggs, and one teaspoon of soda, one tablespoon of lard. Beat the eggs, add the milk, and then the flour and meal, and lastly, the soda dissolved in a little warm water. Heat the waffle irons and cook the waffles quickly, spread with butter and serve at once.

BATTER BREAD.

Scald one pint of meal in one quart of boiling milk (if you can't get so much milk, use one pint of boiling water and add the pint of milk to thin the batter with). To this add one teaspoon of salt, three well beaten eggs, and a heaping tablespoon of lard. Bake in small pans and serve hot.

CANNED APPLES.

Select firm, ripe apples, pare and cut into quarters, remove the cores, put them into a kettle with one pound of sugar to each five pounds of fruit; cover with water and let them cook for half an hour, or till the apples are nearly soft, then put them into the glass jars and seal while boiling hot. These make fine baked and boiled apple dumplings when the fresh fruit is impossible, and are nice served with cream and sponge cake for dessert, just as you do the coddled apples in the summer.

APPLE JELLY.

Apple jelly is so easy to make and is good for so many things, every housekeeper ought to lay in a good supply, and just at this season, when the faulty apples are falling off, is the time to make it. Acid apples are best, but any kind will make jelly. Cut up the fruit without peeling or removing the cores. Wash thoroughly and put into a kettle with water enough to almost cover. Let it boil until the fruit falls to pieces and turn it into a bag, hang it up and let it drip all night. The next day measure and weigh a pound of sugar for each pint of juice. Put the sugar in a biscuit pan, which must be lined with paper, and put it into the stove, put the juice into a porcelain or granite kettle, and put it on the stove. Let it come to a boil, then skim well, adding slowly the hot sugar. It must boil hard for twenty or twenty-five minutes; put it into the glasses or jars and let it get thoroughly cold before you seal it. Grape jelly is good, and is made just in the same way.

APPLE ICE.

Peel very acid apples and stew them until they will pass through a colander; sweeten them and season with the juice and rind of a lemon. To make one gallon of ice use two quarts of apples and two of water, five cups of sugar, to make it freeze quickly, dissolve one heaping tablespoon of corn starch in a little cold water and pour a quart of boiling water over it, stirring all the time; dissolve the sugar in this and add the lemon peel to the mixture. Peach ice made this way, leaving out the lemon is delicious.

HOW MONEY GROWS

It is what you save and what your money earns, not what you earn, that makes wealth. Saving is easy, but knowing how, when and where to safely invest your earnings and

GET LARGE PROFITS From Small Investments

is the key to wealth. After all, money making is like horticulture—a matter of growth—Plant the seed at the proper time in good soil, and your harvest is certain. He who makes two stalks of corn to grow where but one grew before, increases his income by doubling his harvest. So a few dollars invested at the right time in a good, dividend-paying enterprise will bear fruit a hundred fold.

Send for Free Booklet, "Guide for Investors" which shows how to make an absolutely safe and profitable investment. It may save you a loss or

MAKE YOUR FORTUNE

STOCK GUARANTY & SURETY CO.,
Dept. B. 1122 Market St., San Francisco, Cal.
Agents Wanted in every city and town.

SAN JOSE SCALE and other insects can be controlled by using

GOOD'S CAUSTIC POTASH
WHALE OIL SOAP. No. 3.

It also prevents Curl Leaf. Endorsed by entomologists. This soap is a fertilizer as well as insecticide. 50 lb. kegs, \$2.50; 100 lb. kegs, \$4.50. Half barrels, 270 lbs., at 3 1/4c. per lb.; barrels, 425 lbs., at 3 1/4c. Large quantities, special rates. Send for circular.

JAMES GOOD,
939—41 N. Front St., PHILADELPHIA, PA.

FRAZER

Axle Grease Best in the world.

Its wearing qualities are unsurpassed, actually outlasting 3 bxs. any other brand. Not affected by heat. Get the Genuine. FOR SALE BY ALL DEALERS.

DO YOU OWN STOCK?

If so, do you know how to care for it when sick? Our Stock Book tells you all about animals and their diseases. Write for terms. Agents wanted everywhere. Most liberal terms. Outfit free.

B. M. ANDERSON & CO.,
Box 533. - Richmond, Va.

**STOCK LICK IT
STOCK LIKE IT**



**BLACKMAN'S
MEDICATED
SALT BRICK**

The only guaranteed Tonic, Blood Purifier, Kidney and Liver Regulator and Aider of Digestion for all stock. A sure hit on worms. Ticks cannot live. No dosing, no drenching, and no waste of feed. Your horse his own doctor. Endorsed by thousands. Special Offer of four bricks sent prepaid to any address on receipt of one dollar. Money refunded if not satisfied. For full descriptive circulars, testimonials, etc. address

Blackman Stock Remedy Co.
920 Highland Park, Chattanooga, Tenn.

**POLAND-CHINA ... PIGS ...
FOR SALE**

sired by a son of Corrector, the great prize winner that sold for \$2,500.00 and out of sows by Chief Tecumseh II, Zenith Chief, J. H. Sanders and other prize winners. No better bred in the U. S.

RED POLLED CATTLE. 2 handsome Red Poll Bulls, Reg. and mature and a few calves for sale.

Pure bred SHROPSHIRE SHEEP.

**ARROWHEAD STOCK FARM,
SAMUEL B. WOODS, Prop.
Charlottesville, Va.**

Large POLAND-CHINAS.



Choice pigs and bred sows of best breeding and individuality. Registered

SHORTHORN Calves of both sexes. Write for prices and testimonials

J. F. DURRETTE, Birdwood, Albemarle Co., Va.

**Poland-China and
Tamworth Pigs for Sale—**
eligible to registration; also

Hampshire Down Sheep
and grade **Hereford** cattle, ½ or ¾ bred. Calves, yearlings and 2 yr. old.

J. C. GRAVES, Barboursville, Orange Co., Va.

LEMON PIE.

This is a lemon pie which any one can digest and is very delicate and toothsome, though the older housekeepers turn up their noses at the use of corn starch. Dissolve four tablespoons of corn starch in a small quantity of cold water. Pour over this four cups of boiling water; set it aside to get cold. Beat four eggs very light; stir into them four cups of sugar and the grated rind of two lemons and four tablespoons of butter; beat thoroughly and add the corn starch, and lastly, the whites of the eggs beaten to a froth, or you may keep the whites and mix them with six tablespoons of sugar and make a meringue of them for the tops of the pies. Bake these in a crust made of one quart of flour, one teaspoonful of baking powder, one cup of lard, and enough sweet milk to make a stiff dough. Cook rather slowly.

CARAVEN.

CUCUMBER PICKLES.

In answer to the request for a recipe for pickling cucumbers, I send mine, which I have used for fifteen years, and never failed to keep them: Cut the cucumbers from the vine with a half inch (or small portion) of stem, place them carefully in a basket, being cautious to not bruise or rub off any more of the little spurs than can be avoided. Without any washing, place them in the vessels ready to pickle. (I use stone and glass jars.) Cover with pure, strong apple vinegar (cold). If there should be grit on them, it is to be removed when ready to bring to the table. Cover the ordinary way, and set in a reasonably cool place. When cucumbers are scarce, I gather as they grow, always adding vinegar to keep them covered. When the pickles are made early, it is well to notice occasionally through the warm weather, and if the vinegar loses its strength pour off, and replace with fresh. They are soon ready for use, and keep nicely. I have nice, firm pickles now, put up by this method one year ago last June. Where the vinegar is manufactured at home this is not expensive, and there is so little work I prefer this plan of keeping them.

Mrs. H. T. K.
Vandalia, N. C.

GINGER SNAPS.

Two cups sugar, 1 cup molasses, 1½ cups lard or 2 cups of butter, ½ cup hot water or sweet milk, with 1 teaspoon of soda dissolved in it, 1 tablespoon of pulverized ginger, same of cloves, pulverized, two of pulverized cinnamon, flour enough to mix well. Roll thin, cut and bake.


HORTENSE BURKS.

Sandidges, Va.

FARMERS' NATIONAL CONGRESS.

Arrangements are well under way for the 24th annual meeting of the National Farmers' Congress, at Niagara Falls, beginning September 22d. To judge from the efforts put forth by the officers, an instructive and interesting

**Warranted
to give satisfaction.**



**GOMBAULT'S
CAUSTIC BALSAM**

A safe, speedy and positive cure for

Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a **HUMAN REMEDY** for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.

Every bottle of **Caustic Balsam** sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.

DEATH TO HEAVES
Guaranteed



NEWTON'S Heave, Cough, Dis-temper and Indigestion Cure.
A veterinary specific for wind, throat and stomach troubles. Strongly recommended. \$1.00 per can. Dealers. Mail or Ex. paid. **Newton Horse Remedy Co., Toledo, Ohio.**

Knight & Jetton,



Breeders of and Dealers in
Jacks, Jennets, Stallions.
Durham and Hereford
YEARLINGS.
Send stamp for Catalogue.
Murfreesboro, Tenn.

**150 JACKS, JENNETS
and Mules 150**



Best assortment I ever owned. Can suit you exactly. Write for description and prices. Also will sell two Percheron Stallions at close figures.

BAKER'S JACK FARM, Lawrence, Ind.

A nice, smooth **BLACK JACK** for sale. foaled in 1900; also pure bred **Fox Hound Pups** of the celebrated Maupin & Walker strain, apply to

SNOW HILL KENNELS, Woolsey, Va.

"Feeds and Feeding"

**Prof. Henry's Great Book for
Farmers and Stockmen.**

Delivered anywhere for - - \$2.00
With the **SOUTHERN PLANTER**, .252

WARE VIEW FARM

GLOUCESTER, VA.

= OFFERS FOR SALE =

3 large Berkshire Boars :

BEAU OF BILTMORE,

COLUMBIANA'S MASON, and

BOB LOOMIS, JR.

Will be priced low, also about 100 head of extra fine Boar and Sow pigs by the above Boars and out of the best Sows. Entitled to registry Price, \$12 each, or 3 for \$30, Send stamp for reply.

R. S. CAMERON & SON, Props.

BERKSHIRES

ANNEFIELD HERD

Represents the

Finest Blood Lines

in England or America.

Stock for sale at all times.

Correspondence Solicited.
Inspection Invited.

EDW. G. BUTLER, Annefield Farms,
Briggs, Clarke Co., Va.

CHOICE YOUNG

BERKSHIRES

of Both Sexes, for Sale.

By Highclere Topper of Biltmore II, out of Imported Harlene.

Miniborya Farm, Box 901, Richmond, Va



Southdown and

Hampshiredown

FOR SALE; also Sheep and Lambs
prices, apply to ESSEX pigs. For
L. G. JONES,
Tobaccoville, N. C.

FOR SALE.

Large English Berkshire Hogs,
Barred Plymouth Rock Chickens

BEN. BOLT, 60747, 430 lbs. as a yearling at head of herd. ~~EGGS~~ IN SEASON.

JOHN P. FOSTER, Nocreek, Ohio Co., Ky.

Poland Chinas, Chester Whites and Mammoth Bronze Turkeys at Farmers prices

S. M. WISECARVER,
Rustburg, Va.

session may be expected. President Flanders informs us that the following gentlemen have accepted invitations to deliver addresses: Major G. D. Purse, Savannah, Ga., "Sugar Supply in the United States"; Hon. Timothy L. Woodruff, Brooklyn, "Agricultural Conditions Understood to exist in our Insular Possessions, and the Possibilities in their Development"; O. P. Austin, chief of the Bureau of Statistics, Washington, D. C., "Farm Products in the Markets of the World"; Dr. D. E. Salmon, Washington, D. C., "Infectious and Contagious Diseases of Farm Animals and their Effect on American Agriculture"; Prof. T. M. Webster, Urbana, Ill., "Diseases and Insect Pests of Plants and their Effect on American Agriculture"; James Wood, Mt. Kisco, N. Y., "How Can We Enlarge Our Foreign Markets for Farm Products?" Aaron Jones, South Bend, Ind., "Extension of the Facilities of our Mail System."

Governor Odell will deliver the address of welcome, and the response will be made by Hon. Harvie Jordan, Monticello, Ga., first vice-president of the Congress.

Twenty-four years this national body has co-operated with the other organizations of the United States in the betterment of agriculture, and in making the life of the farmer more pleasant, more profitable, and, if possible, more honorable. You will notice by the subjects chosen, and the speakers assigned, that this organization is not an institute, but deals with the relations of the agriculturists to the other professions.

The delegates are commissioned by the Governors of the several States, and any farmer is eligible to appointment.

For information in regard to appointment as delegates, write to John M. Stahl, Secretary, 4328 Langley ave., Chicago, Ill.

Remember the date, September 22d to October 10, 1903.

Excursion rates on all railroads, on the certificate plan.

J. H. REYNOLDS, *Treasurer*,
Adrain, Mich.

AMERICAN POMOLOGICAL SOCIETY.

From the interest manifested among fruit growers throughout the country it is expected that the Boston meeting of this society will be the most largely attended session that has been held in many years. The leading State horticultural societies and similar organizations have appointed delegates to it, and most of the important fruit growing sections of the country will be represented by leaders of horticultural thought and achievement in their respective localities.

The time of this meeting, which is the twenty-eighth biennial session of the society, has been fixed for September 10th, 11th and 12th.

The sessions will be held in the beautiful new horticultural hall of the

Market Toppers for Sale, Low.



One thoroughbred Angus cow, unregistered, coming 3 yrs., with heifer calf at foot
Four three-fourths Angus heifers, two coming 3 yrs., two coming 4 yrs., bred to reg. Angus bull.

Four seven-eighths Angus heifers, coming 2 yrs., bred to reg. Angus bull.

Three seven-eighths Angus heifers, coming 1 yr.

Four one-half Angus heifers, coming 1 yr.

Several fine reg. Angus bull calves from 3 to 7 mos. old at a bargain

One splendid family milk cow, four years old, in calf by a registered Angus bull. Price, \$30; worth \$50

One first-class black mare mule, 7 years old, weight 1200 lbs. Very active and quick. Price, \$160. Would be cheap at \$200.

Two fine Dorset and Shropshire ram lambs, price, \$8 each. Fine fellows, worth double price named.

One 12 mos. old reg. Angus heifer.
All of the above cattle are black, and as well polled as a thoroughbred Angus. Address

W. M. WATKINS & SONS,

Randolph, Va.

Charlotte county.

ANGUS BULL CALVES

Sired by the

Champion Bull BARON IDA.

These calves are choice individuals.

ENGLISH SETTER PUPS.

Sire and dam prize winners.

WARREN RICE, Winchester, Va.

Montebello Herd

Aberdeen Angus Cattle

Reg. bull calves; also first class BERKSHIRE PIGS of Biltmore strain, for sale by L. H. GRAY, Lock box 58, Orange, Va.

Hawksley Stock Farm

has some extra nice Berkshire Pigs for sale. Also one handsome young boar, seven months old. All entitled to be registered.

J. T. OLIVER,
Allens Level, Va.



O. I. C. PIGS

FROM REG. STOCK.

FOR SALE. PRICES RIGHT.

F. S. MICHIE, Charlottesville, Va.

A Steel Stanchion beats anything you ever saw for tying cattle. Lighter, stronger, neater. Swings on chains. Note the way when lying down. Agents wanted. Write for special terms and prices. **Jas. Boyle, Mir., Salem, O.**

Kentucky Herefords

Headed by the famous

IMPORTED BRITISHER

No. 14596 Champion Bull over all breeds in England and Grand Sweepstakes Champion at Chicago 1902 Live Stock Exposition.

We can furnish buyers with anything they wish from the FANCIEST THAT CAN BE BRED to the cheaper class usually desired by the beginner. Write us before buying. Glad to answer inquiries.

Giltner Bros., Eminence, Ky.

HAYFIELDS STOCK FARM HAS FOR SALE

Seven Registered HEREFORD BULLS 8 months old to 2½ years. Two Registered HEREFORD HEIFERS 8 months old and 1 year. Six OXFORDDOWN BUCK LAMBS.

WM. D. MERRYMAN,
Cockeysville, Md.

DORSETS and HEREFORDS.

I am now offering my superior herd bull ROY MAY, 80183; and some fine male calves. I am also booking orders for Dorset rams and ram lambs.

H. ARMSTRONG, LANTZ MILLS, VA.

FOR SALE.—A NO. 1 REG HEREFORD BULL, 7 months old, well marked, weighing over 500 lbs.

Address WM. C STUBBS,
Sassafras P O., Gloucester Co., Va

DUCKS for TURKEYS.

Want to sell 10 fine mammoth Pekin Ducks, or will exchange for mammoth Bronze Turkeys.

Duroc Jerseys, best all purpose hog. Now booking orders for Fall plgs. Also Poland-Chinas.

Finest strain B. P. Rocks in Virginia!

THE CEDARS W. P. G. OWENS,
P. and S. FARPL. Midlothian, Va.

WOODLAND DORSETS.

ONE of our customers writes: "My sales of grade Dorset winter lambs run this year: first 87 head brought \$870; then prices declined somewhat. I am looking for another good Dorset ram." Woodland Dorsets are standard in excellence.

J. E. WING & BROS., Mechanicsburg, Ohio.

... BURKE'S GARDEN DORSETS ...

I NOW HAVE READY A NUMBER OF

CHOICE YOUNG RAMS

and about 300 fine grade Ewes. Prices within reach of all. Correspondence solicited. SAM'L T HENINGER,
BURKE'S GARDEN, Tazewell Co., Va.

A Splendid Opportunity for an Experienced Trucker. address,

W. S. MATHEWS,
Big Stone Gap, Va.

Massachusetts Horticultural Society, where the fruit exhibit, which is a prominent feature of those meetings, also be displayed.

The programme, which is practically completed, will include papers and addresses on topics of importance and interest to both the commercial and the amateur fruit grower.

Such subjects as "Fertilizing for Quality and Color in Fruits," "Grading and Packing for Long Shipment," "Government Inspection of Fruit Exports," "Relation of Cold Storage to Commercial Orcharding," etc., will be discussed by men like J. H. Hale, South Glastonbury, Conn.; Roland Morrill, Benton Harbor, Mich.; G. Harold Powell, U. S. Department of Agriculture, Washington, D. C.; W. A. McKinnon, Chief of Fruit Division, Department of Agriculture, Ottawa, Canada, and many others.

Topics of special interest to amateur fruit growers, such as "Hardy Fruit Gardens," "Judging Fruits by Scales of Points," etc., will be discussed by Prof. S. B. Green, St. Anthony Park, Minn.; Prof. F. A. Waugh, Amherst, Mass., and others.

All persons interested in fruit culture are welcomed as members upon payment of the biennial membership fee of two dollars, which should be remitted by postal or express money order to Treasurer L. R. Taft, Agricultural College, Mich. Correspondence relating to the meeting should be addressed to the Secretary, Wm. A. Taylor, 55 Q street N. E., Washington, D. C.

CATALOGUES, ETC.

Manlove Self-Opening Gate, 272 Huron street, Chicago. A description of very useful device, with illustration.

American Galloway Breeders Association, R. W. Park, Secretary, 17 Exchange avenue, Chicago, Ill. "Why you should breed Galloways"; also experience of prominent breeders. An interesting booklet.

Rosemont Herefords. Berryville, Va. C. E. Clapp, proprietor. Mr. Clapp has a fine herd of Herefords, embracing some of the best bred stock in the country, bred in the purest lines and from the best importations, with Acrobat at the head of the herd.

Kentucky Herefords. Giltner Bros., Eminence, Ky. This is one of the finest herds in the South, with imported Britisher purchased for \$4,000 at the head of the herd.

The Holstein Freesian Year Book, with official records of the Association 1894 to 1902. F. L. Houghton, Secretary. Putney, Vermont, also report of official records for the year, May, 1902, to May, 1903.

Report of the 18th annual meeting of the Holstein Freesian Association of America.

A neat Binder for your back numbers can be had for 25 cents. Address our Business Office.

V. P. I. Farm Bulletin

Our Jersey Herd Bull for sale—PEDRO'S VIRGINIUS, 45919, grandson of Pedro, 3187, and of Marjoram Second, 12805, both of World's Fair fame. The Bull offered has been used in our herd for several years, and is sold to prevent in-breeding. Price low, quality considered.

D. O. NOURSE, Prof. of Agr.
Blacksburg, Va.

Swift Creek Stock and Dairy Farm



Has for sale a large number of nice young registered A. J. C. C.

JERSEY BULLS AND HEIFERS.

None better bred in the South. Combining closely the most noted and up-to-date blood in America. Bulls 10 to 12 months old, \$25; Heifers, same age, \$35. POLAND CHINA PIGS, \$5 each. Send check and get what you want.

T. P. BRASWELL, Prop., Battleboro, N. C.

REGISTERED JERSEY BULLS FOR SALE AT A BARGAIN.

Calves 1 and 2 yr. olds; also EGGS FOR HATCHING, W. & B. P. Rocks, W. & B. Leghorns, and S. L. Wyandottes, 75 cents for 15.

J. B. JOHNSON, Manassas, Va.
"CLOVER HILL FARM."

ST. OMER HERD

Offers young bulls fit for service, out of tested dams with good yearly records. Strong in Exlle of St. L., King of St. L. and Stoke Pogis of Prospect. Reasonable prices.

JOS. T. HOOPES, Bynum, Md.

Will sell cheap a lot of purebred JERSEY HEIFERS and Cows, all solid colors. W. B. GATES, Rice, Va.

A few fine ENGLISH SETTER puppies for sale at very reasonable prices.

JOHN A. CLARK,
Malvern Hill, Va.

St. Bernard Pups

of Imported and prize winning stock, FOR SALE For particulars, address

E F. HENKENIUS, TYLER,
Hanover Co., Va.

COLLIE PUPS

By Imported Sires. Sable and white and tri-colors. Prices, \$8 to \$15. Older ones correspondingly low. Book on Training, 50 cents: FREE if you buy a Collie. MAPLEMONT STOCK FARM, Albany, Vermont.

Mention the Southern Planter in writing.

FOR SALE

Two good young SCOTCH TOPPED SHORT-HORN BULLS, a red and a roan, about six and ten months old. Will sell low if taken soon. Also some nice helpers and Berkshire pigs. Address, ORMSBY BROS., Lakeland, Ky.



COOK'S CREEK HERD Scotch-Topped Shorthorns

Herd Headed by Governor Tyler, 1585 48. Young Bulls for sale. Inspection and correspondence invited.

HEATWOLE & SUTER, Dale Enterprise, Va.

Quietude SHORTHORNS FOR SALE.

1 yearling bull, 3 bull calves 2 two-year-old heifers bred to a pure Scotch bull, 3 yearling heifers and a few cows. This stock is first class and in excellent condition. Write to or come to see T. J. THOMPSON, Swoope, Va

ELLERSLIE FARM

**Thoroughbred Horses
AND SHORTHORN CATTLE,
Pure Southdown Sheep
and Berkshire Pigs.**
FOR SALE. R. J. HANCOCK & SON,
CHARLOTTESVILLE, VA.

PURE BRED
Short Horn Calves
from fine Stock. Also
Yorkshire Pigs
of very Prolific Breed.
JAS. M. HOGE, Hamilton, Va.

— 6 Scotch Topped — SHORT HORN BULL CALVES

6 Scotch Topped SHORT HORN Bull Calves 3 to 15 months old; reds and roans; sired by Verbena's Champion No. 129881, and Royal Chief No. 185432, and he by imp. Royal Stamp No. 146662. Poland China Spring pigs, good ones, sired by Coler's Perfection No. 56105. Pedigrees furnished with all stock sold. Come or write your wants.

WM. T. THRASHER, Springwood, Va.

REGISTERED ABERDEEN ANGUS Cows and heifers for sale. Prices low.

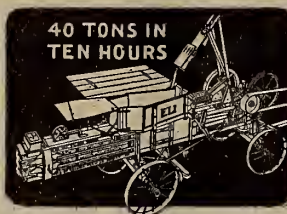
W. B. MACGREGOR,
Avon, Va.

Ayrshires, Berkshires and Oxford-Downs.

Ayrshire Calves of both sexes, Berkshire Pigs and Boar and 2 Oxford-Down Farms for sale.
MELROSE CASTLE FARM,
Enos H. Hess, Manager, Casanova, Va.

THE FREEMAN MACHINERY.

It is a practical line of farmers' machinery, which meets the usual and almost every-day wants on the farm, that is manufactured by the S. Freeman & Sons Mfg. Co., of Racine, Wis. The advertisements appearing in this paper from time to time describe such necessities as feed and ensilage cutters, windmills, wood saws, corn shellers, etc. This Freeman line of machinery not only occupies the right grounds, being articles that the farmer has almost daily need for, but they represent, severally, the best things manufactured for their intended uses. They are up-to-date, have the modern devices and improvements, and can be depended upon to give the most satisfactory all-around service. Doubtless the Freeman catalogue will show something which most every reader of this has felt the need of. They will be glad to send it if you write for it. Before writing, look up the advertisement elsewhere and direct accordingly.



The little cut herewith shows the Eli Power Baling Press, a machine which has become prominent in the hay baling world. In one form or another, for the Eli Press is made in 38 different sizes and styles, the machine is found doing duty in all parts of the country, as well as in many foreign parts. Not to speak of the valuable features of the continuous travel and reversible lever horse presses, this power press has many qualities to put in the first rank, such as its 53 by 30 inch feed opening, automatic condensing hopper, self feed, automatic block placing device, signal bell for regulating size of bales, etc. Perfect safety in the operation, the doing away entirely with all hazard to leg or arm, is one of its bright marks. It is a machine of immense power, speedy, and most durably built, whether in the wood or steel case. All readers know the Eli as the prize product of the Collins Plow Co., Quincy, Ill., who advertise it elsewhere and who will be pleased to send descriptive catalogue on request.

LYONS GAP HEREFORDS.

We are in receipt of two handsome lithos from Mr. Haynes L. Morgan, Saltville, Va., proprietor of the Lyons Gap Herefords. One is of Marmaduke No. 90033, who heads the herd, and the other is the beautiful cow, Jena 134611. From his breeding we take it that Marmaduke is a worthy successor to Gazette, who was Mr. Morgan's chief sire.

Mention the Southern Planter in writing.

"MEADOW BROOK STOCK FARM."

Shropshire Sheep.

Very fine yearling bucks, sired by best English bucks, from pure-bred native ewes. Fine ewe lambs for sale.

C. A. SAUNDERS, Culpeper, Va.

Registered P. Chinas Berkshire, C. Whites. Fine large strains. All ages, mated not a in, 8 week, pigs. Bred sows. Service boars and Poultry. Write for prices and free circular. P. F. HAMILTON, Cochranville, Chester Co., Pa.



FOR SALE.—MY REG. ANGORA "Gilbert of Aganaw" 4 years old, and as good as anybodys goat. Must sell to avoid inbreeding. Price \$25.00 f. o. b., South Boston, Va.
W. W. STOCKWELL, South Boston, Va.

ANGORAS.

I will sell to prevent inbreeding, from 1 to 6 pure bred ANGORA BUCKS, delivered in Richmond at \$15.00 each.

JULIAN M. RUFFIN,
Old Church, Hanover Co. Va.

ANGORA GOATS are handsome, hardy and profitable. For large circular address E. W. COLE & CO., Big Clifty, Ky.

"Crop Growing and Crop Feeding."

BY PROF. W. F. MASSEY.

383 Pp. Cloth, \$1.00; Paper, 50c.

We offer this splendid work in connection with the SOUTHERN PLANTER at the following prices:

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Fast Mail, Passenger and Express Route between Richmond, Fredericksburg, Alexandria, Washington, Baltimore, Philadelphia, New York, Boston, Pittsburg, Buffalo and All Points North, East and West.

W. P. TAYLOR, Traffic Manager, Richmond, Va.

BILTMORE FARMS, = Biltmore, N. C.

Headquarters for GOLDEN LAD JERSEYS,

Also Get of TREVARTH and GEN. MARIGOLD. ❀ ❀ ❀

GOLDEN LAD'S SUCCESSOR. First and sweepstakes over all at the Pan-American Exposition, the champion JERSEY BULL OF AMERICA, and out of Golden Ora, our great prize-winning cow, both born and developed on these Farms, is among our service bulls.

Biltmore Jerseys are a combination of large and persistent milking qualities with an individuality that wins in the show ring.

SPECIALTY. Write for descriptive circular of the best lot of young bull calves ever offered, both for breeding and individuality. They are by noted sires and out of large and tested selected dams. Many of these calves are fit to show and win in any company.

BILTMORE POULTRY YARDS. ❀ ❀

SPECIALTY. Write for descriptive circular of eggs from our prize-winning pens. Over 50 yards to select from, made up of the winners at the leading shows for the last two seasons. If you want winners you must breed from winners.

Headquarters for the best IMPORTED ENGLISH BERKSHIRES.

APPLY TO *BILTMORE FARMS, BILTMORE, N. C.*

IMPERIAL FRUIT AND POULTRY FARM

Is now booking orders for Eggs from the best strains and careful matings of

Barred, Buff and White Plymouth Rocks,

Silver=Laced and White Wyandottes,

S. C. B. Leghorns and Mammoth Pekin Ducks,

AT \$1.00 PER SITTING.

EGGS FROM BLACK DEVIL PIT GAMES.

Never known to run. The grittiest of all games. **\$2.00 PER SITTING.**

We give 15 Chicken and 13 Duck Eggs for sitting. **Order at once.**

Write name and address plainly. Remember the express is no more on 2 or 3 sittings than on 1.

Refer to Augusta National Bank and former patrons. Satisfaction guaranteed or money refunded

P. H. HEYDENREICH, - Staunton, Va.

MAGAZINES.

"The Horse in America" is, perhaps, the widest reaching topic in the September Century. It is treated by John Gilmer Speed in a manner to awaken discussion, and there is a rare collection of pictures of famous horses, which will themselves be attractive to all who are interested in the development of the horse in the United States. It is followed by a paper on "The Berlin Bourse," by William C. Dreher, who describes German methods on 'change and compares them with those of New York.

The same number contains two portraits of the late Pope, a drawing from life by Andre Castaigne and a frontispiece drawing by H. T. Tobin from a biography. Accompanying these is a brief appreciative article by Cardinal Gibbons, on "The Character of Leo XIII.," based on personal impressions. Other articles relating to recent events are "A Wonderful Change in Pelee," by Dr. Hovey, with photographs taken by him on the flank of the new peak, and "Heroes in Black Skins," a narrative of some admirable deeds by negroes, written by Booker T. Washington, with a reproduction of the bust of the Tuskegee educator by Miss Leila Usher. A remarkable phase of American life is graphically described by Ray Stannard Baker in "The Day of the Run," illustrated by Blumenschein, and the northwest also comes in for further consideration in an article by James Outram on "The First Ascent of Mount Assiniboine," made by him. Ambassador Andrew D. White prints more "Chapters from My Diplomatic Life," full of anecdotes of notable people in various European countries. W. R. Merriam, director of the last census, writes of "Noteworthy Results of the Twelfth Census," bringing out curious data, and Thomas Bailey Aldrich recalls an episode in the life of Edwin Booth under the title of "Poor Yorick."

Burton Egbert Stevenson's new romantic novel, called "The Blade That Won," is published complete in the September number of Lippincott's Magazine. It is replete with adventure and alive with tenderness. The assistance given a gentle maid in defending important papers introduces the hero to his love and the reader to them both without tiresome prelude. The tale is told with refreshing simplicity and directness and offers no temptation to take a nap between chapters.

Among contributors of short stories appears the name of Mary Moss, whose novels, "Fruit Out of Season" and "Julian Meldohla," proved so popular. Her story is called "Miss Atherton's Wanderjahr," and treats of an unconventional New York society girl. It ends as such things do sometimes.

"How Miss Turkington Did Not See Queen Victoria," an amusing tale of two Irish ladies, by Seumas MacManus, calls forth sympathy from all who have seen their dearest wish about to "come

IT RIDES ON -
ITS OWN WHEELS

NO DULL DISCS!

Hitch your team to it—just the same as to any vehicle—throw over the levers and ride anywhere. No loading on wagon or sled. *Cultivates all the ground.* Independent Discs. Depth secured by pressure. Angle of Discs does not change. Made strong. Does better work and more of it than any other Harrow ever made.

A BOY DOES A MAN'S WORK
 WITH A SUPERIOR DISC HARROW.

AMERICAN SEEDING MACHINE CO.,
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 SPRINGFIELD, OHIO.

Our new book No. 14 tells all about it. **IT'S FREE.**

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FOR SALE
BERKSHIRE BOAR ready for service, longbody, short stout legs, well quartered & correctly marked, price \$20.00 Will also take orders for pigs ready for September shipment.
FOREST HOME FARM,
 PURCELLVILLE, VA.

CISMONT DORSETS

CISMONT STOCK FARM offers well developed young Dorsets of the best blood of England and America.

Prices Reasonable. G. S. LINDENKOHL, Keswick, Albemarle Co., Va.



INTERNATIONAL STOCK FOOD

GROWTH OF MY PIGS WAS MARVELOUS

MOUNTAIN GROVE, Mo., December 7, 1902.

International Stock Food Co., Minneapolis, Minn.

GENTLEMEN:—I have tested "International Stock Food" for Horses, Cows, Calves and Hogs and it gave marked results in every case. I had a horse with the farcy, swollen as thick as my hand all over the belly and after two weeks' feeding of "International Stock Food" he was sound and well. All my teams have done remarkably well and are fat. My cows also show a large gain in milk and flesh, and it caused the finest growth on a jack colt that I ever saw. My fattening hogs have done the best I ever had hogs do and the growth of my pigs and shoats was simply marvelous. A stockman remarked that my thoroughbred hogs were the finest he ever saw. I never expect to be without "International Stock Food" for my stock as it makes me extra money.

Yours respectfully, **JAMES B. DAKE.**

We have Thousands of Similar Testimonials and Will Pay You \$1000 Cash to Prove That They Are Not Genuine and Unsolicited.

Our own "International Stock Food Farm," which is located 12 miles from Minneapolis and contains 650 acres. We feed "International Stock Food" every day to all our World Champion Stallions, Dan Patch 1:59 1/2, and Dinkum 2:05 1/4; to our Young Stallions, Brood Mares, Cows, Work Horses, Cattle and Hogs. "INTERNATIONAL STOCK FOOD" FEEDS FOR ONE CENT and is Prepared from Roots, Herbs, Seeds and Bark and Won the Highest Medal at Paris Exposition in 1900 as a High-Class vegetable, medicinal preparation to be fed to stock in small amounts as an addition to the regular feed. It is a Great Aid in Growing or Fattening stock because it increases the appetite and Aids Digestion and Assimilation so that each animal obtains more nutrition from the grain eaten. We positively guarantee that its use will make you extra money over the usual Plan of Growing and Fattening stock. "International Stock Food" can be fed in safety to Horses, Cattle, Sheep, Goats, Hogs, Colts, Calves, Lambs or Pigs. It is Absolutely Harmless even if taken into the Human system. You insist on eating medicinal ingredients with your Own food at every meal. Salt is a stomach tonic and worm medicine, Pepper is a powerful stimulating tonic, Mustard is a remedy for dyspepsia, Vinegar is a diuretic. You eat these medicinal ingredients almost with every mouthful of your food, and it is proven that these Medicines promote health and strength for people and improve their digestion. "International Stock Food" contains pure vegetable medicinal ingredients that are just as safe and as necessary an addition to the regular feed of your stock if you desire to keep them in the best possible condition. "International Stock Food" is endorsed by Every High-Class Farm Paper. It purifies the blood, stimulates and permanently strengthens the entire system so that disease is prevented or cured. "International Stock Food" is sold on a "Spot Cash Guarantee" by Fifty Thousand Dealers throughout the World. Your Money will be Promptly Refunded in Any case of failure. It will make your Calves or Pigs grow Amazingly and has the largest sale in the World for keeping them healthy. Beware of the many Cheap and Inferior Imitations. No Chemist can separate all the Different powdered Roots, Herbs, Bark and Seeds that we use. Any One claiming to do so Must be an Ignoramus or a Falseifier.

WHAT PEOPLE SAY ABOUT THIS BOOK.

INTERNATIONAL STOCK FOOD CO.,

EAU CLAIRE, WIS.

Dear Sirs:—I received your "International Stock Book" and was more than pleased with it. It is worth more than \$10.00 to me. Very truly yours,

RICHARD J. MORRISRY.

INTERNATIONAL STOCK FOOD CO.,

ODESSA, MO.

Dear Sirs:—Your "International Stock Book" duly received, and it is the best thing of its class that I have ever seen. There is a volume of useful articles in it from start to finish.

Respectfully, **GEO. W. NULL.**

A \$3000.00 STOCK BOOK FREE

IT CONTAINS 183 LARGE ENGRAVINGS OF HORSES, CATTLE, SHEEP, POULTRY, ETC.

The Cover of this Book is a Beautiful Live Stock Picture Printed in Six Brilliant Colors. Size of the book is 6 1/2 by 9 1/2 inches. It cost us \$3000 to have our Artists and Engravers make these Engravings. It describes common Diseases, and tells how to treat them. It also gives Description, History and Illustrations of the Different Breeds of Horses, Cattle, Sheep, Goats, and Poultry. It contains Life Engravings of many very noted Animals, and also testimonials. The Editor of This Paper Will Tell You That You Ought to Have This Stock Book in Your Library for Reference. It Contains a Finely Illustrated Veterinary Department That Will Save You Hundreds of Dollars.

WE WILL MAIL IT TO YOU ABSOLUTELY FREE, Postage Prepaid.

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Largest Stock Food Factory in the World. Capital Paid in, \$1,000,000. 600,000 Feet of Space in Our New Factory.

true," when suddenly it has been snatched from sight.

Josephine Dixon's contribution, "The Bribing of the Senator," shows keen insight and is a happy instance of a halt in the strenuous life at Washington. Like the first story in the Bible, there is an apple at the bottom of it.

"Three Letters and a Note," which were found in the escritoire of an engaged girl, make a tale worth the telling by Albertine Crandall.

C. Yarnall Abbott, an artist, shows his versatility in the story entitled "The Mendacity of Mr. Riggs," which is about a humorously inclined burglar and a pompous bank cashier.

The September number of Lippincott's Magazine fulfills its promise to publish a series of pithy literary papers from George Moore, who wrote those famous "Confessions of a Young Man." Part I. of these "Avowals" asks and answers the question, "Why is it that England has failed to produce a first-class work of fiction?" This will doubtless provoke no end of argument.

We Are Still in the Business....

"HILL TOP" Stock at Shadwell, Va.

Having changed our residence, we brought with us and have for sale a choice lot of HILL TOP stock.

Jersey Cattle, Southdown and Shropshire Sheep, Berkshire Hogs and B. B. R. Game Chickens.

Our Berkshire Pigs are now closely sold up, but we will have a fine lot ready to ship by September 1st. We will be glad to serve our old friends and are always glad to make new ones.

We have won more premiums on sheep and hogs at State and County Fairs than all other breeders in Virginia combined.

H. A. S. HAMILTON & SONS, Shadwell, Va.

"The Oaks" Herd.

OFFERS FOR SALE—

2 Registered SHORTHORN COWS,
2 Registered MORGAN COLTS, and a few good yearling SHROPSHIRE RAMS.

B. B. BUCHANAN, Bedford City, Va.

SETTLING THE QUESTION.

Booker T. Washington's fund of stories about his race, with which he illustrates the points he makes in his addresses, seems inexhaustible. A Southerner asked him recently, when about to address a Northern audience, to prove to it that the Northerners were responsible for the introduction of slavery into the American colonies. Mr. Washington said that was a large contract, and told the following story to illustrate his view:

"An old colored man had a pig, which he sold one morning to a white man for three dollars. The white man drove off with his purchase, but on the road the pig escaped, and found its way back to Uncle Zeke's cabin. A little later another white man came along, and Uncle Zeke sold him the same pig for another three dollars. On his way home with the pig the second purchased encountered the first returning in search of the escaped animal. After some wrangling they decided to go back and refer the question to the old darkey.

"Uncle Zeke," said No. 1, 'didn't you sell me this pig at 9 o'clock this morning.

"Sho I did, massa.'

"But, Uncle Zeke," said No. 2, 'didn't I pay you three dollars for this pig at 12 o'clock?'

"Sho you did, massa.'

"Well, then, who does the pig belong to?'

"Sakes alive," said Uncle Zeke, 'can't you white folks settle dat question 'tween yo'selves?'

NOT HIS LETTER.

Congressman Cannon was sympathizing with the woes of postmasters.

"Why anybody would be a postmaster!" he exclaimed. "And yet there are hosts of applicants. But why anybody—Just listen now to what a postmaster from my district out near Danville went through the other day.

"An Irishman came to this man, and asked if there was a letter for him.

"There is," says the postmaster, 'and it's a big, fat letter, too. There's eleven cents due on it.'

"Well," says the Irishman, 'jus' open it, an' read it to me, will yez? Me education was neglected in me youth.'

"The letter was twenty pages long, but the postmaster read it all through out loud.

"Jus' rade it ag'in," says the Irishman, when he ended; and being obliging, the postmaster did so.

"Then the Irishman scratched his head, and said: 'How much is due on her?'

"Eleven cents.'

"Well, kape her," said the Irishman. 'She don't belong to me.' And he walked off."—*New York Tribune.*

A neat Binder for your back numbers can be had for 25 cents. Address our Business Office.

PROSPEROUS FARMERS

use the **SUPERIOR** DISC DRILL



Experience proves that Superior Disc Drills meet every requirement of perfect seeding. They are enthusiastically endorsed by the most prosperous farmers everywhere. They will not clog in trash and will successfully sow and cover grain wherever a disc harrow will run. From one-third to one-half more land can be seeded in a day than with any other drill. Never fail to sow the exact amount required of both grain and fertilizer. Light draft. No neck-weight. Easy on both man and team. Equipped with every labor-saving device of merit. Strongly built of the best material. Write to-day for free catalogue No 14. It tells all about them.

SUPERIOR DIVISION,
American Seeding Machine Co.,
Springfield, Ohio, U.S.A.

JERSEY CATTLE.

We have for sale, **Young Cows, Heifers and Young Bulls,** from cows testing **18 to 24 lbs. of butter in seven days,** and giving **40 to 60 lbs. of milk per day.** Also—

LARGE YORKSHIRE PIGS,

The coming bacon breed. Our stock is from the most noted breeders in England and Canada.

Write for prices. Address—

BOWMONT FARMS, SALEM, VIRGINIA.

Hill Top Stock Farm.

BERKSHIRE HOGS and SOUTHDOWN SHEEP

—A Specialty.—

S. Brown Allen, who succeeds H. A. S. Hamilton & Co. in the ownership and management of this celebrated Stock Farm, with increased facilities, will make a specialty of breeding Berkshire Hogs and Southdown Sheep, without regard to coat, from the purest and most royal strains of imported blood.

SOUTHDOWN BUCKS.

I have a few Southdown Bucks that cannot be excelled in this country, for sale. We have swept premiums on this stock for fifteen years over all competitors at Fairs in this and adjoining States

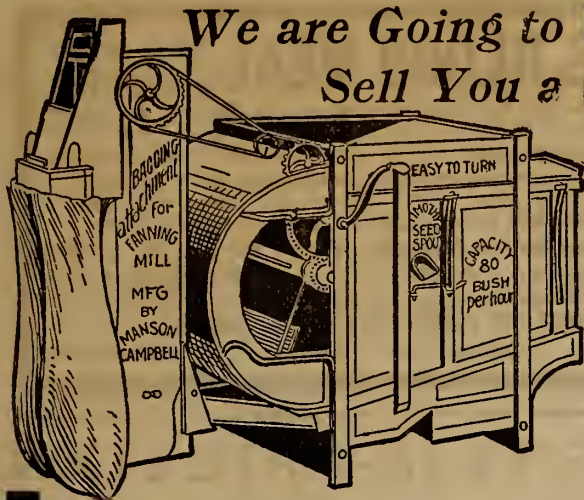
S. BROWN ALLEN, Staunton, Virginia, (Successor to H. A. S. HAMILTON & Co.)

HEEBNER'S "UNION" FEED AND ENSILAGE CUTTERS

are the only thoroughly up-to-date machines in dry fodder cutting. They cut and crush at one operation. Prepares the nutritious lower stock, making an excellent and much relished food. No waste. Easy to maintain. It is easier to grow two tons of fodder than one ton of hay on the same ground. Fodder is equal to hay in feeding value. The corn itself is clear gain. Shredding attachment for \$5.00. You then have cutter, crusher and shredder combined in one. Not much more expensive than other machines, but far more valuable. Send for free booklet.

HEEBNER & SONS, 25 Broad St., Lansdale, Pa.





We are Going to
Sell You a

CHATHAM FANNING MILL

On 60 Days' Approval

to convince you of its superiority over any fanning mill you ever heard of. If that isn't long enough time we will take your **Three Years' Note**. **WE KNOW** what the **Chatham** will do for you, how much money it will make, how much it will save you, how strong it is, how easily it runs and the perfect work it accomplishes. It will clean and grade your seed grain, will enable you to sell your clean grain at the top price, will save the timothy seed from the yearly crop of grain, save the screenings for feed for your stock. **The Chatham** will clean and grade any kind of seed or grain. The new bagging attachment saves the work of one man. We have already sold **OVER** one hundred thousand (100,000) of them in every part of the U. S. and Canada, and are not going to stop until we place one in the hands of every farmer, stock raiser and seedsman in North America. We want you to send us your name and address. We will then send you the most instructive book, free,

"How to Make Dollars Out of Wind."

It tells ways of making easy money that you never thought of. We will also outline our **'THREE YEARS' Plan** of selling you a **Chatham**. It will surprise you by its liberality and convince you that we believe in our mill. It gives you a chance to let the mill pay you before you pay us for the mill.

Here are some of the things others have done with the help of the **Chatham Fanning Mill**:

Fred Dietz, Ransomville, N. Y., got \$108 cash for timothy seed out of his wheat, and didn't know there was any there.

O. E. Perkins, Hallsport, N. Y., got \$550 more for 1000 bushels of wheat than his neighbor did. Perkins used the **Chatham**; neighbor didn't.

D. M. Bethune, Bethune, S. C., obtains \$1 extra on every 100 pounds of rice by using the **Chatham**.

G. Woodring, So. Charleston, O., secured \$157 worth of grass seed from cleaning up the refuse in barn floors and mangers.

Read this letter from the Superintendent of the High Shoals Manufacturing Company.

Now write us and get that free book and our proposition to make you money. Address

M. CAMPBELL FANNING MILL CO., Ltd., Manufacturers of the Chatham Fanning Mill 116 Wesson Avenue, Detroit, Mich.

OFFICE OF
High Shoals Manufacturing Company,
MANUFACTURERS OF
YARNS, SHIRTINGS, CHECKS, STRIPES, ETC.
SHIPPING AND EXPRESS PAID.
BIRMINGHAM, GA.
Talmage Hardware Co.,
Agents for Chatham Fanning Mills, High Shoals, Ga., May 25th, 1903
Athens, Ga.

Gentlemen:
The Chatham Fanning Mill bought of you is by far a more valuable machine than I first thought. As you know I did not get this machine until after I had begun to plant my cotton. When the Fanning Mill arrived, in order to test its merits, I fanned out a lot of the remainder of the seed of my cotton and to my surprise on looking over the farm I found that this seed fanned before planting came up a great deal better, in fact one would not believe that the Fanning Mill would make such a difference. In addition to the stand of cotton I saved at least one-third of the seed. I do not think that I can afford to do without this machine even at double the price I paid for it. I have had several of my neighbors to fan their seed and they all speak in the highest of terms so far as they can see at present. I have only used it on cotton seed and fanning peas, and as stated above I would not think of doing without it at even twice the cost.
Yours respectfully,
A. J. Baxter, Supt.

Slot. to V. G.

A CHEERFUL VIEW.

Two men who had been sitting together in the seat near the door of a railway car became engaged in an animated controversy, and their loud voices attracted the attention of all the other passengers. Suddenly one of them rose, and said, "Ladies and gentlemen, I appeal to you to decide a disputed point. My friend here insists that not more than three people out of every five believe they have souls. I take a more cheerful view of humanity than that. Will all of you who believe you have souls raise your right hands?"

Every hand went up.

"Thank you," he said, with a smile. Keep them up just a minute. Now will all of you who believe in a hereafter raise your left hands also?"

"Thank you," he said. "Now, while all of you have your hands raised," he continued, drawing a pair of revolvers, and levelling them, "my friend here will relieve you of whatever valuable articles you may have."—Implement Trade Journal.

A neat Binder for your back numbers can be had for 25 cents. Address our Business Office.

SUNNY HOME HERD OF ABERDEEN-ANGUS CATTLE.

Baron Roseboy, 57666, by the great Gay Blackbird, dam by Eulailles Eric, 2d prize yearling at Columbian Exposition, 1893, heads the herd. Pedigree means only the tracing of good or bad qualities through several generations. The animals comprising this herd are direct descendants of the greatest prize-winners of the breed for the past twenty-five years. Does this mean anything to you, who are in need of an animal of this the **GREATEST BEEF BREED**? If so, come and see the best lot of calves we ever bred, or write.

A. L. FRENCH, Proprietor, R. F. D. 2, Byrdville, Va.

(Note change of P. O. address),

Depot and shipping point, Fitzgerald, N. C., on D. & W. R'y, 24 miles southwest of Danville, Va.

VIRGINIA DIVISION.

Farmers Mutual Benefit Association

A Fire Insurance Association, chartered by the State of Virginia, for farmers, under an amended and well protected plan.

Insures in counties surrounding and accessible to Richmond, against Fire and Lightning, only country property—no stores or unsafe risks. Policy-holders amply secured—all legitimate losses paid. Average cost per year less than other plans, and a great saving to farmers. Amount of property now insured, \$330,000, and increasing yearly. Estimated securities in real and other estate, \$750,000.

For further information, address, **CHAS. N. FRIEND, General Agent,**
MENTION THIS JOURNAL. **CHESTER, VIRGINIA.**

SWEET POTATOES.

A pamphlet, "Cultivation and Storage of Sweet Potatoes," gives, as is believed, a more practical plan for keeping potatoes than any other that has heretofore been placed before the people. Important and valuable information that is not contained in any other known publication is here given. Potatoes can thus easily be kept in good condition 12 months or longer. The pamphlet is worth, even to life-long potato growers, much more than the price asked.

A. F. Funderburg, Dudley, S. C., in speaking of this pamphlet, says: "I would not take ten times its cost for it."

The pamphlet has been introduced into 19 States and 3 Territories. The plans are simple and easily understood. They can be made available for old style potato houses, or for new ones, specially built, preferably the latter. Order now. Do not delay.

Price, 50 cents, postpaid. Address
BRYAN TYSON,
Carthage, N. C.

I have a few copies of a formula for excluding moth from beehives that will be sent, as long as they last, without charge, to those who request it.

B. T.

THE WORLD'S BEST JERSEYS.

Best of Cows in Illinois in Training for World's Fair Dairy Test.

The most valuable herd of Jersey cattle ever assembled at any one point may be seen on a model farm at Jerseyville, Jersey county, Ill. The worth of this herd can only be approximated, for the cattle are not for sale. An offer of \$15,000 for a single member was promptly declined, and not an animal would bring less than \$500 if placed on the market to-day.

The cows are the property of individual members of the American Jersey Cattle Club, and they are assembled because they are the best qualified to make up a herd that will represent the Jersey breed in the great dairy demonstration arranged for the World's Fair at St. Louis in 1904 by F. D. Coburn, Chief of Live Stock.

Unequaled care and attention is being given these cattle. No athlete trained for an event requiring the development of strength, endurance and skill ever received more attention than is being bestowed on these full-blood Jerseys. When the Louisiana Purchase Exposition opens its gates on April 30th next year the herd will have been in constant training for a full year, and will be in the pink of condition.

Twenty-five cows will participate in the test at the World's Fair, and fifteen cows are held in reserve, to be substituted should occasion require. Great caution and judgment was exercised in the selection of these candidates. The committee was free to select from any of the 250,000 registered Jerseys in America, and the animals

ARMOUR'S BLOOD MEAL Cures Scours in Calves.

First proved by the Kansas Agricultural Experiment Station, and since corroborated by thousands of leading stockmen who have used it without a single failure. Equally effective for the diarrhea of all animals.

PREVENTS weak bones, paralysis of the hind legs and "thumps" in pigs; "big head" of foals; "rickets" of all young animals; abortion due to incomplete nutrition, and a host of other troubles.

A Potent Food for Work Horses, Dairy Cows, Poultry.

Write us for booklet giving valuable information about Blood Meal and our other feeding products. Consult us free of charge regarding stock diseases.

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CATTLE of the Netherland, De Kol, Clothilde, Pietertje and Artis families. Heavy milkers and rich in butter fat. Stock of all ages for sale.

Reg. BERKSHIRES From noted strains, Imported Headlight, Lord Highclere and Sunrise.

DORSET SHEEP**B. PLYMOUTH ROCK CHICKENS,**

N. & W. and Southern R. R.

T. O. SANDY, Burkeville, Va.

WE OFFER a few well-bred registered Jersey Bull and heifer Calves at \$30 each.

They are four months old and from best strains of this breed; also a few young Berkshire boars large enough for service at \$15 each, and pigs eight weeks old at \$6 each—by pair or trio, not akin.

M. B. ROWE & CO., - Fredericksburg, Va

NOW IS THE TIME to buy HOLSTEINS from the Ury Farm Herd.

Ury Alwina Count Paul De Kol; De Kol 2nd Butter Boy 3rd No. 2, and Lord Harford De Kol head our herd. You know their official backing. There is nothing better. 15 bull calves at bargain prices. Their dams are of the De Kol, Aaggie, Netherland, Pietertje and Clothilde strains and are of the producing kind. The best bulls are sold young; also a few cows and heifers. Choice ENGLISH BERKSHIRE pigs of the best strains. Before buying, correspond with or visit

THOS. PASSITT & SONS, Sylmar, Md.

We **positively guarantee** to breed and ship the **VERY BEST** strains of thoroughbred registered **LARGE ENGLISH BERKSHIRE** Hogs for **LESS MONEY** than any other firm in the U. S., the superiority of our stock considered. Send us your order and we will satisfy you both in price and stock.

WALTER B. FLEMING,

Proprietor of the Bridle Creek Stock Farm, Warrenton, N. C.



thus come from all sections of the United States.

The owners of the cattle are prosperous and they and the Jersey Club to which they belong determined to spare no expense in making a perfect showing. The cows selected from widely separated points, some coming from Maine and some from Oregon, some from the North and others from the South, could not give satisfactory results until they were accustomed to the St. Louis climate, so a point near St. Louis was desired for assembling the herd, and as A. C. Auten, of Evanston, Ill., a member of the Club, tendered the use, gratuitously, of his 400-acre farm on the outskirts of Jerseyville, his proposition was accepted.

This farm, 40 miles from St. Louis, and one of the best in Illinois, has been pronounced ideal for the purpose, and there the work of getting the Jerseys in condition is going forward.

C. T. Graves, of Maitland, Mo., a well-known breeder of Jersey cattle, and an expert on all points pertaining to the dairy, was selected to take charge of operations, and with his family he moved to Jerseyville early in 1903 and began the interesting work. It was planned to construct on Mr. Auten's farm a model dairy and accessories, and under Mr. Graves' personal directions this has been done.

First he designed a cow stable, which was completed early in July, and it is probable that not another barn in the world is as complete in every respect as this. It is a square with stable wings on the north and west. The north wing has stalls for 24 cows, and the west wing has stalls for 12 cows and six roomy box stalls.

The barn and stables are marvels of convenience and cleanliness. An electric plant, in a separate building, furnishes light and power. The numerous windows are perfectly screened, and electric fans, numerous placed, keep the air in constant motion. There are no unpleasant odors, and the stalls extend the full length of the wings. The cows are so placed that their heads are at the rows of windows, and the air they breathe is always pure and fresh from the fragrant fields. The floors are all concrete. Between the rows of cows, at their rear, is a grani-toid passage way, affording the cows' caretakers plenty of room to work at feeding and milking time.

The mangers are also of concrete, and are different from anything ever before designed. The walls slope toward the cow's head, and while the tendency is for the animals to push the food away from her, the sloping walls bring it right back. A gate is at the cow's head. It is so arranged that it may be put forward or back so as to fit the cow's length, and keep her rear hoofs on the edge of the floor of the stall, adjoining which is a gutter. A chain at the back passes under the hollow of the cow's rear legs, preventing her from stepping into the gutter, which slopes toward the centre.

HIGH GRADE ABERDEEN ANGUS HEIFERS

in Calf and Registered Bulls.

I expect to make another trip to the great X. I. T. Ranch in the Pan Handle of Texas about November 1st, and will purchase heifers for those who wish them by the car load. A personal acquaintance extending over a period of more than ten years with the superintendent of this great ranch, places me in position to purchase cattle to great advantage; in fact, few men in the North and West can buy females at all. I brought 155 2 yr. old heifers to North Carolina last fall, they have given the best of satisfaction—90 per cent. of them raising fine, lusty calves as fine formed, as pure bred and not a non-breeder in the lot. The cattle are very HIGH GRADE, pure bred bulls only having been used on this 3,000,000 acre ranch for 14 years. The heifers have never been fed or sheltered, will weigh about 800 lbs., hearty and strong—all black and hornless, as near alike as so many peas. Steer calves from this ranch have been selling at \$20 and \$21 each, in lots of from 100 to 5 000 for several years.

Here is an opportunity for the cattle men of the South to secure cows that are so much sought after in the great cattle markets. The heifers will cost \$30 each at the ranch, and about \$7 each will land them at your station. My commission is \$1 per head and expenses, (expense very little) for personally selecting, shipping, caring for and feeding cattle enroute.

TERMS: calf at time I start for ranch. 30 cows constitute a car load. Interested parties can see some of these cattle at the farms of Mr. L. Banks, Holt Graham, N. C., or at our farms at Fitzgerald, N. C.

Send me your orders, will have to get my order within four weeks. Write

A. L. FRENCH, Fitzgerald, N. C., or R. F. D. 2, Byrdville, Va.

POLAND- CHINAS.



I have a limited number of pigs by my fine boars Gray's Big Chief, 57077; and Victor G, 57075, and can furnish pairs not akin or related to those previously purchased. Young boars and sows of all ages. Send to headquarters and get the best from the oldest and largest herd of Poland-Chinas in this State at one-half Western prices. Address

GRAY'S BIG CHIEF, 57077.

J. B. GRAY, Fredericksburg, Va.



BERKSHIRES.

Mr. H. F. Stratton of Erin, Houston Co., Tenn., writes me on Aug. 15th 1903:

"The little pig just received is a beauty, I am delighted with him—wouldn't take twice twenty dollars for him. He is thoroughly patrician. I expect great things

from him at the head of my herd of Royal Berkshires."

So send to Thos. S. White for patrician pigs rather than buy plebeians for a little less, do not be "penny wise and pound foolish," and especially in thoroughbreds. I have had 13 sows to farrow in past few days with over 20 more nearly due, order promptly for fall shipments, I never have enough to go round.

Short Horn (Durham Cattle) for sale. Write for particulars.

THOS. S. WHITE, Fassifern Stock Farm, Lexington, Va.

When corresponding with our advertisers always mention the
Southern Planter.

On the Jersey farm there is a creamery, and many other conveniences, all of which will be duplicated, or improved upon, when the World's Fair stables are erected for the final test.

In all former tests at international expositions the stables have not been open to the public. At St. Louis a 10-foot promenade extends around the barn, and the visitor may see every cow and may observe the feeding and milking. A screen protects the animals, behind which no one save the attendants can go.

Every ounce of food and water given each cow will be carefully weighed and a record kept.

A huge silo will be built adjoining the stables. A field of 20 acres of corn is now growing near Clayton, and this will be stored in the great silo for food next summer. Alfalfa will also be brought from Colorado.

All feeding and milking will be done in the stable. The milk will be turned over to the Dairy Department, and in a model dairy in the Palace of Agriculture it will be converted into butter and cheese and a careful record of each cow's participation in the test will be kept.

With the herd will be Flying Fox, the famous Jersey bull owned by Thos. W. Lawson, of Boston. Mr. Lawson recently refused an offer of \$15,000 for the bull.

Among the prominent Jersey cattle breeders who have made entries are C. I. Hood, of Lowell, Mass., and Geo. Vanderbilt, of Biltmore, N. C.

VOUCHED FOR HER.

In a certain mountain town lived a little boy of four, who was very much frightened at the thought of a bear—in fact, it was the only animal or thing he was afraid of—and his mother in trying to keep him from running into the street and playing in the irrigating ditches, and wandering away to a little unkept park, told him he must not go, for there were bears there. This frightened William, and the following day he sat on the doorstep in a very quiet and thoughtful mood. When asked by the village clergyman, who was passing by, why he did not go out and play, William replied, "I must not go out of the gate, for there are bears in the roads and down in the park." The minister laughingly replied, "No, there's no bears anywhere around," but William insisted that there were, as his mamma had told him that there were. The minister said, "Let's go in and ask mamma about it," and mamma had to acknowledge that she had simply told William that to keep him from running away from home. When alone with the little boy the mother said, "William, mamma is sorry that she told you a story about the bears, and I guess we had better ask God to forgive her," whereupon William said, "Mamma, you had better let me ask God, for maybe He wouldn't believe you."—Eva Pierce Finch, in September Lippincott's.

HEREFORDS CHAMPION PRINCE RUPERT No. 79,539, ... at head of herd. ...

A Few High Class Bulls and Calves For Sale.

Write me before buying elsewhere. **EDWARD G. BUTLER,** "ANNEFIELD FARMS," BRIGGS, - VIRGINIA. Send for illustration of Prince Rupert.

Registered HEREFORD CATTLE.

Service Bulls; Imported Salisbury 76059 (19083). Lars Jr. 85297.

FOR SALE—A choice lot of bull calves and yearling bulls. The bull calves sold recently weighed 600 lbs. at 6 mos. old. Call and make your own selection. Prices right.

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Bacon Hall Farm.

Hereford REGISTERED Cattle

"TOP" BREEDING, CALVES NOT AKIN.
MOTTO—Satisfaction or no sale.

E. M. GILLET & SON, - Glencoe, Maryland.

C. C. TALIAFERRO,
NASONS, VA. 1903

"MOUNT SHARON STOCK FARM"

Reg. and Grade HEREFORD CATTLE
BRONZE TURKEYS & MUSCOVY DUCKS

Registered SHROPSHIRE SHEEP
Registered POLAND-CHINA PIGS

NOW OFFERS FOR SALE

- HEREFORD CATTLE.**—Calves, entitled to registration, \$75 to \$100. Grade Calves by "Sir Edward" \$25 to \$40.
 - SHROPSHIRE SHEEP.**—Bucks, one year old and over, \$15 to \$20. Buck Lambs, July delivery, \$10 to \$12. Ewe Lambs, July delivery, \$8 and \$10.
 - POLAND-CHINA HOGS.**—Pigs, six weeks old, \$5. Pigs, two or three months old, \$7.50. Pigs, five months and over, \$15 to \$20.
 - M. BRONZE TURKEYS.**—Toms, \$4. Hens, \$3. Eggs, per sitting of 12, when in season, \$4.
 - MUSCOVY DUCKS.**—Pure White Drakes, \$1.25. Pure White Ducks, \$1. Pairs, \$2.25. Trios, \$3.
 - BARRED PLYMOUTH ROCKS.**
 - ROUEN GESE.**—Ganders, \$2.50. Geese, \$2.50. Eggs, per sitting, \$3.
- WILLIAM L., Jr.,** No. 21058, half brother of Axtell, will serve a limited number of mares for \$25 the season. Mares boarded at lowest figures per month.



DIVIDED IN TASTE.

One morning, as Judge C., of N. Co., Va., was starting for the town, he was approached by one of his negroes, who, with more or less confusion, asked:

"Massa, when yo' goes to do Co't-House will yo' git me a license? I's gwine to be mar'ed."

"Married, are you, Sam? All right," called the Judge as he hastily drove off. Arrived at the court-house, he spent a very busy day, and it was not until he was preparing to leave that he remembered Sam's license and realized that he had not been told the name of the bride-elect.

"The old idiot, he never told me who he wants to carry, but, of course, it's Lucinda; he's always making eyes at her." So saying he returned to the court-house and had the license made out in the names of Sam and Lucinda. Sam was the first to greet him upon his return with the inquiry:

"Git my license, Massa?"

"Yes, Sam, you old fool. You didn't tell me who you want to marry, but I remembered how you're always hanging around courting Lucinda and got the license in her name."

"Lawd, Massa!" exclaimed Sam, "'taint Lucindy, it's Kyarline. What's I gwine ter do, Massa?"

"Well," said the Judge, "the only thing will be for me to get another license to-morrow."

"Massa," said Sam, "did yo' pay any'ting fur dem license?"

"Yes, Sam, a dollar and seventy-five cents."

"Will another license cos' any'ting?" asked Sam.

"Yes, Sam, a dollar and seventy-five cents more," replied the Judge.

After scratching his woolly pate for a few minutes Sam replied:

"Well, Massa, I done axed Kyarline an' she sed 'Yase,' but fo' de Lawd, dere ain't no dollar an' seventy-five cents' difference in dem two niggers, so I'll jus' take Lucindy."—Prudence Baxter, in September Lippincott's.

The artist wrote from New York to the farmer with whom he spent the summer: "I have sold for \$150 that picture I painted of your cow."

"Think of it, Maria," the good man said to his wife as he read the letter. "Why, I'd have sold the cow herself for \$75!"

"What did you let that little fellow call you a liar for?"

"Oh, I never fight a smaller man than myself. There's no glory in licking him—and there's always the possibility that I might get licked."

Judge: Then, sir, when you were being assaulted, why did you not call for an officer?

Witness: Call a policeman, your honor? Wasn't I assaulted sufficiently as it was?

Mention the *Southern Planter* when corresponding with advertisers.

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Assisted by **MARQUIS OF SALISBURY 16TH 138894,** the best son of imp. Salisbury. Correspondence solicited. Visitors welcome.

C. E. CLAPP, Berryville, Clarke Co., Va.



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Poland-China Hogs.

Polled Durham Cattle,

Shropshire Sheep, Southdown Sheep,

Berkshire Hogs.



All carefully bred regardless of cost.

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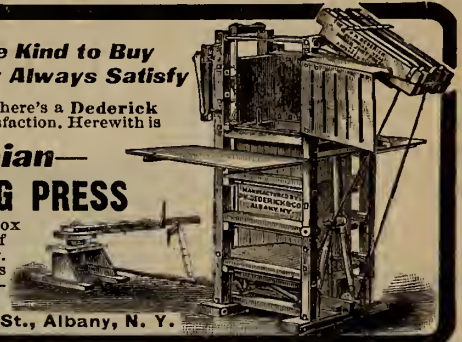
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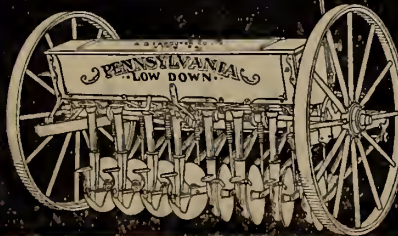
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Grain and Fertilizer Positive force feed for fertilizer, grain and grass seed. Drills any depth, perfect regulation, low steel or wood frame, high wheels with broad tires. Easy to fill and operate. Light draft. Investigate before buying. Write for free catalogue. **SPANGLER MANFG. CO., 501 QUEEN STREET, YORK, PA.**

STANDARD EVERYWHERE. FULLY WARRANTED.



PROF. JOHN SPENCER, Veterinarian, Virginia Agricultural Experiment Station, says:

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"Insures the Destructions of Mites. Outbreaks which have come under our notice have been thoroughly stamped out by dipping in a 2 per cent solution of Chloro Naphtholeum Dip."

If you've tried it you know how good it is, if you haven't, try it now. One Gallon sent pre-paid upon receipt of \$1.50, money order or check. Booklet free. It can make money for you. **F. V. GUNN & CO., Richmond, Va., Agts. Va. & N. C. ● The WEST DISINFECTING CO., Inc., Mfrs.**

THE PHILOSOPHY OF FELIX G. PRYME.

In order to be popular, forget to say a good deal.

The way to make a man forget a favor is to do him one.

Boomerangs and evil thoughts act in a similar fashion.

A big heart usually goes with a big body, but a big head rarely does.

Wisdom is always conceded to a rich man until he loses his riches.

Do not emphasize your own virtues by enlarging on the failings of others.

The most depressing humidity is that caused by the tears of a woman.

A genius is a man who refuses to believe in the impossibilities of other people.

A safe way to judge a man is to ascertain just what friends he doesn't make.

No marriage ceremony has ever been gone through without a hitch—of bride and groom.

Some men who take a post-graduate course are, in the long run, glad to become letter carriers.

The claims to wisdom of owls and a multitude of men rest upon their looks, and nothing more.

The heartache of many a widow has been tempered by the reflection that she looks her best in black.

To get rid of a bore, ask him to repeat his longest and favorite story twice. Even he cannot stand that.

A fool is generally a person who detects your faults while you are in the act of calling attention to his own.

The grievance of not a few women against their husbands is that the latter give them no ground for grievances.

The success of an amateur gardener often depends upon the number and the appetites of his neighbor's chickens.

Only a smart man can conceal from a woman the fact that he isn't as smart as he would wish her think he is.

If we could draw checks as easily as we draw unkind inferences, automobiles would be as common as sparrows.

One of the curious things about a man who wants to borrow money from you to-day is his eager determination to repay it to-morrow.

There are three stages in the existence of the average man when he is of particular interest to his community—viz., at his birth, marriage and funeral.
--Success.

TAIL OF A TWISTED TALE.

A man once owned a balky mule
That blandishments resisted.
And, losing patience, he grabbed hold
Upon his tail and twisted.
Whereupon the mule looked back on
him

In mild, reproving sorrow,
And if the sad remains come down,
His funeral's to-morrow.

FOR SALE—Pure-bred **Beagle pup** of the finest hunting strain. Will be ready for hunting this fall. C. T. SMITH, CROXTON, Caroline Co., Va.

EMPIRE DRILLS



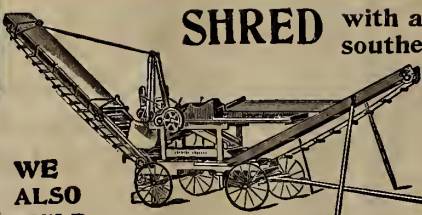
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EDW. W. COST,
Traffic Mgr.

CHARLES B. RYAN,
Gen. Pass. Agt., Portsmouth, Va.

NOTHING TO SUGGEST.

My Uncle Hi's mind has an equable poise,
 Through seasons of drought and of raining;
 "In worry," he says, "we lose sight of our joys,
 And we spend too much time in complaining.
 If the Lord, in His wisdom, sends blessing or blight,
 I'll take what He sees fit to proffer,
 For I'm firm in the faith that He's runnin' things right,
 An' I have no suggestions to offer.

"To the Lord, when it travail, no dolorous plea
 I make, for my creed's not so narrow
 As to think for a moment He'll lose sight of me,
 When He notes e'en the fall of the sparrow.
 He is there on His throne, an' so just is His rule,
 Alike to the saint and the scoffer,
 I sit here at home jes' a-takin' things cool,
 An' I have no suggestions to offer.

"It's a mighty good world that we live in to-day,
 For the good's all the time growin' better,
 An'," my Uncle Hi adds, in his comical way,
 "It satisfies me to the letter!
 So I jes' keep t' work in the shadow an' shine,
 Bit by bit addin' gold t' my offer,
 For the world's bein' steered by a Hand that's divine,
 An' I have no suggestions to offer."
 —Roy Farrell Greene, in September Success.

THE APPLE CROP.

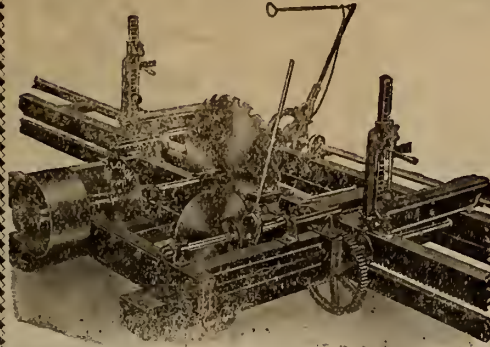
At the recent National Apple Growers' Convention, Niagara Falls, N. Y., a statistical report covering all the apple-growing States and Canada was issued. The apple crop for 1902 was estimated at 47,625,000 barrels, and the crop for 1903 at 54,614,000 barrels. The crop in Canada last year was estimated at 16,120,000 barrels, and for 1903 at 13,300,000 barrels.

How was the scenery where you spent your vacation?"
 "The most expensive I ever gazed at."

"What did your old uncle leave?"
 "A lot of disgusted relatives and a jubilant young widow we'd never heard of before."

Saw Mills For The Whole World! Big Ones and Little Ones!

All sizes from 4 H. P. Farmers' Mill that cuts 3,000 feet a day, up to the biggest that's made. OVER 10,000 DELOACH PATENT SAW MILLS IN USE.



Our Large Catalog No. 66

will interest you. It illustrates and tells all about the famous LeLoach Patent Variable Friction Feed Saw Mills, Shingle Mills, Planers, Edgers, Trimmers, Stave and Lath Mills, Bolters, Cord Wood and Drag Saws, Corn and Buhr Mills, Water Wheels, Mill Gearing, Pulleys, Shafting, Etc.

Please mention the SOUTHERN PLANTER when writing us. We will appreciate it.

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 The Largest Saw Mill Manufacturing Plant in the World.

ABERDEEN-ANGUS CATTLE

FOR SALE AT INTRODUCTORY PRICES.



Choice Bulls from 3 months to 2½ years old.

The Best Breed in the world for grading-up purposes.

Call and see them or write for prices.

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The World (thrice-a-week), N. Y....	1 00	1 25
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The Baltimore Sun	1 00	1 35
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FRANKLIN DAVIS NURSERY CO., Baltimore, Md.

DOMESTIC ECONOMY.

To remove ink spots from gingham, wet the spots with milk and cover them with common salt. Let stand some hours, then rinse in several waters.

To clean a kettle in which onions or other rank vegetables have been cooked, rub with a cloth dipped in hot, strong soda water, then wash in soapy water.

A good way to fix your beeswax: Place between two pieces of paper and keep it near at hand, so that when the starch sticks you can readily rub the iron over it.

When making mince pies, the fat that rises to the top of the liquid in which the meat was boiled may be skimmed off and utilized to good advantage in the place of suet.

A few drops of oil of lavender poured into a glass of very hot water will purify the air in a room almost instantly from cooking odors, and is especially refreshing in a sick room.

To clean decanters, get some old pieces of blotting paper and soap them well, roll the bits up small, and put about twenty little pieces into the bottle to be cleaned, then half fill the decanter with warm water. Let it stand five minutes, and then shake well for another five minutes. Rinse with cold water and set it to drain; when dry it will be beautifully clear and bright.

Clothespins need washing occasionally to keep them in good condition. It is a good plan to put them in the boiler after the clothes have been taken out. After they have had a good wash they should be thoroughly rinsed in clean water.

To grind old scissors at home, saw the blade on the neck of a glass bottle, as if you were trying to saw that part off. In a short time the scissors will be quite sharp.

Pour a little vinegar upon the stove when you are cooking onions, turnip or cabbage, and it will immediately change the disagreeable odor. Cloves will do the same.

Poultry should never be cooked until twelve or fourteen hours after killing.

WHY SHE ENJOYED IT.

"I like to go to church," announced Dottie, aged five, "because they sing nice hymns about flowers and insects and things to eat, and the man in the night gown talks about birds."

"Why, Dottie," said her mother, "I don't think there are any hymns about insects and things to eat."

"There is so," insisted Dottie. "Last Sunday we sang a beauty hymn about 'Bringing in the Cheese,' and to-day we sang one what began, 'Just as I am without one flea,' and when we got through the man talked about a hawk and two pigeons."

Subsequent inquiry revealed the fact that the text had been, "Why halt ye between two opinions?"—September Lippincott's.

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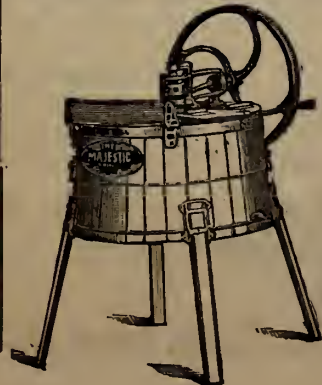
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THE MAJESTIC ROTARY WASHER

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The well bred stallion Whalebone, 7872, by Abdallah Wilkes, a successful son of the famous progenitor of speed and race horse quality, George Wilkes, 2:22; dam Mollie O., by Abdallah, 15, sire of Goldsmith Maid, 2:14; second dam Kate, by Pilot, Jr., sire of dams of Maud S., 2:08 $\frac{3}{4}$; Nutwood, 2:18 $\frac{3}{4}$, the renowned sire, and others of pronounced fame.

In color Whalebone is the richest shade of dark mahogany bay, while well formed and handsome, and in harness there are few horses in the land able either to outshow him or to exhibit more airiness and style. With temper and disposition that are perfect, he is a road and pleasure horse of rare excellence, never shies or pulls, and is afraid of nothing—in fact, is safe for a lady to drive. He was foaled 1883, but does not look his age by a decade, being well preserved and a horse of extraordinary vigor. The Wilkes family excels all others in point of longevity, potency, and, it may be said, popularity, too, as cited in Red Wilkes, aged 29; Jay Bird, aged 25; and Baron Wilkes, aged 21. The former served 40 mares this season, Jay Bird 75, and Baron Wilkes 45. In order to make a quick sale, I am offering Whalebone for \$175, probably less than half his value, and a sum which he can, in proper hands, just about double this fall in service fees. He is a sure foal getter, and sires uniformly good looking colts that develop into large, handsome horses, the kind greatly in demand. Address

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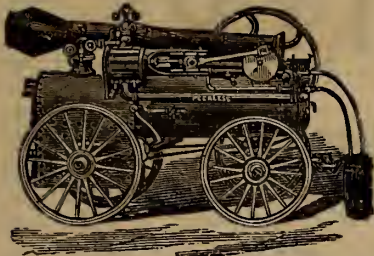
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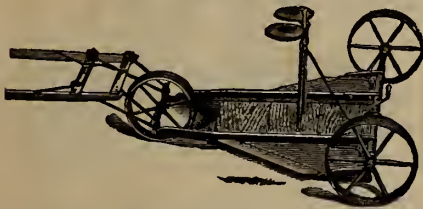
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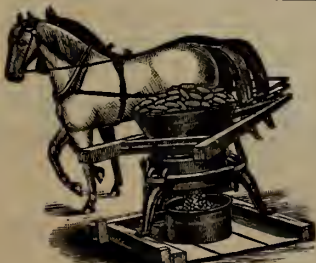
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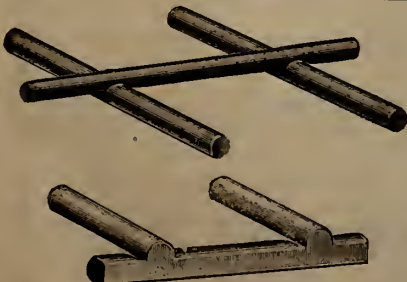
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The SOUTHERN PLANTER, Richmond, Va.

HIS CHOICE.

It is told of the late Senator Matt Carpenter that one day while chatting with friends in a committee room the conversation turned on the relative merits of religious sects. Nearly every member of the party belonged to some church, and there had been an animated discussion, Senator Carpenter pacing up and down, listening intently enough, but saying not a word.

"What church do you belong to, Carpenter?" asked one.

"I don't belong to any."

"Why don't you join one?"

"I don't want to. None exactly suits my views."

"What one would you join if you were to feel forced to a choice?"

"The Catholic, by all means?"

"And why the Catholic?"

"Because they have a purgatory, and that's a motion for a new trial."—The Omaha Bee.

When the new puppies were discovered to be blind Teddy was very unhappy. His auntie assured him that God would open their eyes in due time. When bedtime came Teddy was heard

adding a petition to his prayers:

"Dear God, do please hurry up and finish those puppies!"—September Lippincott's.

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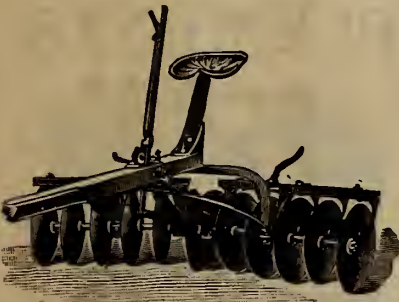
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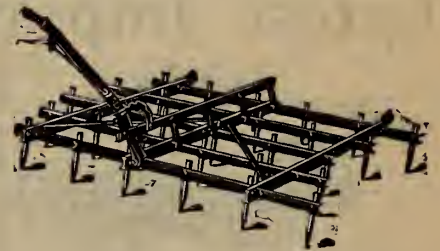
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THE DEERE AND PITTS DISC HARROWS, STEEL SHANKS, DUST PROOF BEARING BOXES, FLEXIBLE GANGS, allowing inner ends to rise and fall independently.



ALL STEEL LEVER HARROWS.

Made up of sections of 25 teeth each.

THE EMPIRE DRILL, Disc or Hoe sows all kinds of grain, corn, peas, beans and fertilizers in most approved manner. Is equipped with the celebrated Empire Grain Feed and Mark's Fertilizer Force Feed.



LAND ROLLERS, with wood staves or solid steel rims. All sizes.



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FULL CIRCLE HORSE POWER PRESSES, HAND AND STEAM POWER. RAPID IN OPERATION, SIMPLE, STRONG, AND LOW IN PRICE.

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We solicit inquires for anything desired.

13 So. Fifteenth Street,
Between Main and Cary.

RICHMOND, VA. THE CALL-WATT CO.

BUTTER STORY WITH A MORAL.

A few days ago two farmers came to town and both brought butter for sale. One of the farmers had his product pressed into neat, compact, half-pound packages, and he readily sold it at 25 cents a pound. He told the Herald man that he could not meet the demand for his butter. The other had his butter in a bucket, and it looked soft and watery. After tramping around town from place to place trying to sell he gave up in disgust and said it was no use to bring butter to town to sell, as nobody would buy it. This little relation of facts carries with it a moral. Can you not guess what that moral is?—Palestine Herald.

TRUTH COMES OUT.

"Are you blind by nature?" asked the charitably-inclined citizen. "No, sir," candidly replied the beggar; "I'm blind by profession."—Chicago Daily News.

The onion is a homely plant,
And rank as most that grows,
And yet it beats to mix with soup
The lily or the rose.

The Chesapeake & Ohio Railway

Extending from Cincinnati and Louisville, and

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THE BIG FOUR SYSTEM, from Chicago, St. Louis, Peoria, Indianapolis, Sandusky and Cleveland;

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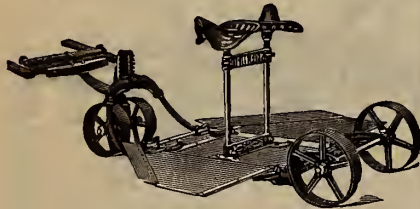
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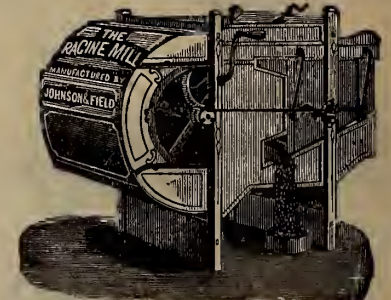


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The best Harvester on earth, for standing corn
Safety seats. Safety shafts.



Special prices given on Studebaker and Brown Wagons, Buggles and Carts.



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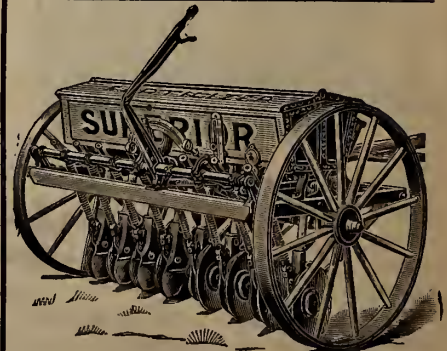


ROSS....

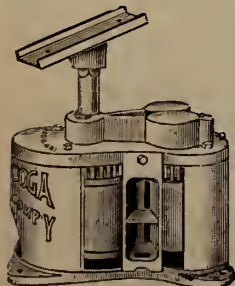
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Studebaker Buggles, all styles, Studebaker Carriages, Studebaker Carts, Studebaker Runabouts.



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Granulated Sugar, per lb.....	5	Fresh Mixed Cakes, per lb.....	8	CHOICE WINES AND LIQUORS.
Light Brown Sugar, per lb.....	4½	6 bars Colgate's Octagon Soap....	25	Moore's Crown, fine, per gal.....\$3.00
Lion Coffee, per lb.....	9	7 bars Octagon Shape Soap, 10-oz.		Moore's Excelsior, fine, per gal.... 2.00
Arbuckle's Coffee, per lb.....	9½	cakes for.....	25	Moore's Keystone, 3 years old, per
Best Green Tea, per lb.....	75	10 bars Moon Soap, 8-ounce cakes.	25	gal. 2.50
Choice Green Tea, per lb.....	60	12 bars Hustler Soap, 8-oz cakes..	25	Moore's Old Capital, 2 years old,
Good Green Tea, per lb.....	40 & 50	Small California Hams, per lb....	9½	per gal. 1.50
Black Tea, Best, per lb.....	50	Good Salmon, can, 9c.; 3 cans....	25	Pure Va. Apple Brandy, gallon... 3.00
Good Black Tea, per lb.....	40	Large Mackerel, each.....	10	Maryland Apple Brandy, gallon.. 2.25
Fair Black Tea, per lb.....	25	Large cans Good Tomatoes, can..	8	Imported Sherry Wine, gallon .. 3.00
Best Rice, per lb.....	8	Large cans Best Tomatoes, can... 9		Good Gin, per gallon..... 2.00
Good Rice, per lb.....	5	2 lb. cans Best Tomatoes, can.... 6		Best Gin, gallon..... 2.50
Pure Leaf Lard, per lb.....	10	Large Juicy Lemons, dozen.....	12	Best N. C. Corn Whiskey, per gal.. 2.00
Good Leaf Lard, per lb.....	9	Green Coffee, per lb., 9c.; 3 lbs....	25	Best Catawba, per gallon..... 45
Cooked Sliced Ham, per lb.....	12½	Quart Mason Jars of Light Syrup.	10	Blackberry Wine, per gallon..... 45
Good Salt Pork, per lb.....	7	½ gallon Can Light Syrup.....	20	Good Port or Sherry Wine, gallon. 1.00
Choice Salt Pork, per lb.....	9	1 gallon can Light Syrup.....	40	New England Rum, per gallon.... 2.00
Best Salt Pork, per lb.....	10	¾ bbl. Clipped Herrings.....	2.75	7 year old Pure Rye, 1896, Good
Best Potted Ham and Tongue, can.	4	200 pound sack salt, per sack....	85	Hyspire Brand, per gallon.... 3.50
½ lb. can Chipped Beef.....	10	100 pound sack salt, per sack....	45	Duffy's Malt Whiskey, per bottle,
New N. C. Cut Herrings, dozen,		Best Full Cream Cheese, per lb..	15	80c.; per dozen 9.00
10c., or, per bbl.....	4.25	Lump Starch, per lb.....	4	O'Grady's Malt Whiskey, per bottle,
New N. C. Roe Herrings, dozen,		Best Water Ground Meal, per peck,		80c.; per dozen..... 9.00
18c., or, per bbl.....	2.75½	20c.; per bushel.....	75	McDermott's Malt Whiskey, per
Our Pride of Richmond Flour, best		Best Ship Stuff, per 100.....	1.10	bottle, 80c.; per dozen..... 9.00
patent, per bbl.....	4.50	Best Bran or Brown Stuff, per 100.	1.00	Pure Scotch Whiskey, User Brand,
Our Daisy Flour, good patent, per		Best Mixed Oats, per bushel.....	45	per quart 1.15
bbl.	4.25	Porto Rico Molasses, per gallon..	35	Pure Fulcher Mountain Whiskey,
Our Excelsior Flour, good family,		New Orleans Molasses, per gallon.	50	per quart 1.15
per bbl.	3.75	Good Dark Molasses, per gallon..	20	Pure Savage Mountain Whiskey,
Fresh Soda Crackers, per lb.....	5	3 plugs of any 10c. Tobacco for 25c.,		4 years old, very fine, gallon... 3.00
Ginger Snaps, per lb.....	5	such as Peach, Plum, Grape, Reynold's		
		Sun Cured and other brands.		

Jug and bottle orders given special attention.

We have everything in the Grocery, Liquor and Feed line, and can furnish anything not quoted at lowest market price. Prices on Staple Groceries and Feed subject to market changes.

SEND US YOUR ORDERS.

SENSIBLENESS.

I was in a hardware store a few days ago, and a hustling German farmer entered. The proprietor shook hands with him, and asked about the prospects of his crop. Among other things he asked how he was getting along with his haying.

"My hay is all in der barn und stack," replied the farmer.

"Well," said the proprietor, "you are lucky—one of the luckiest men in this section. More than half the farmers had hay down when the storm came on yesterday. There will be lots of damaged hay around here. Many that didn't get caught by the storm of last week got caught yesterday. Yes, sir; you are a lucky man." He then stepped out to speak to a customer.

The farmer turned to a clerk, and with a grimace said: "He say dot I am lucky. Dere vas no luck about it—it vas just blam sensibleness! I vent afder dot hay, und I got it. Does he tink dot I vas so foolish as to cut grass ven it was looking like rain all about? I cut ven it look like fair veder. und den I go afder dot hay like a steam engine, und ged it. Den he say dot I vas lucky! Ha, ha!"

Sure enough, it was merely plain "sensibleness." For some time the weather has been squally. Some farmers watched the indications closely, and when it was plain that we would have at least two or three days of fair wea-

ther, they "went after the hay like steam engines," and got it up in splendid shape. They had everything ready and oiled, and when the time to "go after it" came, they went. The other fellows cut when they got ready, hoping that the weather would be fair, and they have a lot of damaged hay on hand. There is lots of luck in "plain sensibleness," as well as in going after a thing like a steam engine.

WHAT HE MIGHT HAVE DONE.

"See here, young man," said the minister, "you never paid me that fee for marrying you."

"You're mighty lucky I haven't sued you for damages."—From Tit-Bits.

A passenger on a train, being greatly irritated by the voices of a drove of children in the same coach, scowled on the woman by whom they were accompanied and exclaimed: "What is this—a family or a picnic?" "These are all mine," replied the woman, severely, "and it is no picnic!"

Question—If it takes a farmer two weeks to dig a barrel of apples, how long will it take a mosquito to crawl through a barrel of molasses? Answer—There is no place like home.

Little Willie from the city watched the cows lying placidly in the barn lot, and said: "Uncle John, you must have to pay a lot of money for chewing gum for your cows."—Colman's Rural World.

What's the difference between Niagara Falls, an automobile and a ham sandwich? Niagara Falls is run by water power, and an automobile is run by gasoline. But what about the ham sandwich? There's where you bite.

Boarder—"Here's an account in the paper of a man who married four women in one day." Mrs. De Hash—"Why, the horrible brute! Who was he?" Boarder—"Rev. Mr. Longcoat, the preacher. Married four couples, see?"

Do You Ship Apples?

If so, let us call your attention to the California and Oregon apple boxes, the coming packages for nice apples, particularly for foreign shipments. SOUTHSIDE M'F'G. CO., PETERSBURG, VA.

— FOR SALE —

Fine young Jack, sure foal getter, and his colts are good ones. Will be priced right to party meaning business.

Address,

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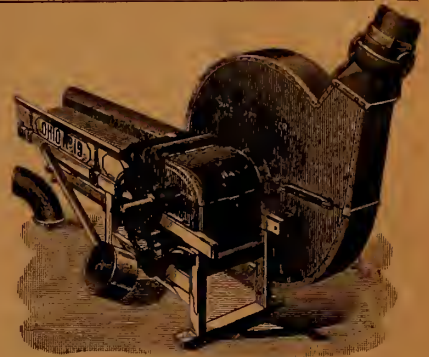
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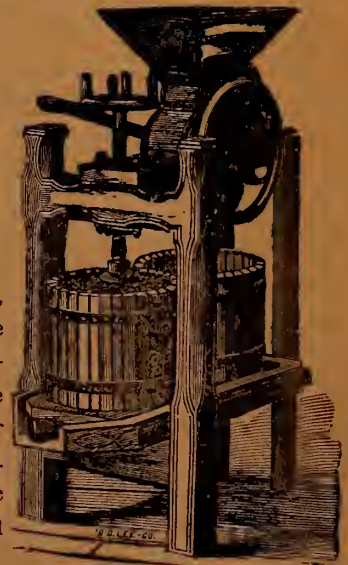
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