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DEVOTED TO

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

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TRUCKING, LIVE STOCK AND THE FIRESIDE.

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

70th Year.

RICHMOND, VA., JUNE, 1909.

No. 6.

Farm Management.

WORK FOR THE MONTH.

The month of May to this writing has not been so favorable a one for the progress of the crops already planted as was the month of April. The weather has been fine but dry, no rain having fallen over the greater part of the State since the month came in until to-day (21st), the consequence has been that growth has been slow, and from many sections we have reports that both wheat, oats and grass have practically come to a standstill, and the land has become so hard that plowing had to be suspended. The nights also have been cold. This condition has not been peculiar to this State, but more or less general over the whole of the Southern States, and more intensely so over some of the middle States. There is considerable complaint of injury to the wheat crop from these States, and planting of the cotton and corn crops is being delayed. To-day, 21st of May, we have had a fine rain, which continues, and we hope will continue for another day or two. If so, great good will be done and the work of planting the crops can be resumed with a prospect of quick growth, as the ground is now warm. Over the whole country the season is late. In the spring wheat belt the seeding of the crop is two to three weeks behind normal, and the yield will much depend on a late fall. The area planted has been increased about 1,000,000 acres over that harvested last year, but even with this increase the area of the wheat crop—winter and spring—is still more than 1,000,000 less than that harvested last year, assuming that all the spring wheat seeded comes to maturity. The winter wheat area to be harvested is about 27,871,000 acres, or 2,475,000 acres less than the area harvested in 1908. The effect of this shortage in production coming upon an existing shortage, both here and in Europe has had the effect of pushing up the price of wheat on the market to near \$1.50 per bushel. A leading member of the Mark Lane Exchange (London) has recently stated that the available wheat in England is more than 1,000,000 bushels less than it ought to be to enable current requirements to be met as they arise, and that millers cannot secure prompt delivery of grain at even the increased price now current. Much severe com-

ment has been made with reference to the "corner" in wheat which has recently squeezed a large number of operators on the market, but this could never have occurred but for the fact of the actual conditions operative in the market. Those who engineered the "corner" had better gauged actual conditions and realized that demand had overtaken supply, and whether they had operated or not the price of wheat was bound to advance. We predicted this more than a year ago. We have been gradually coming to this for several years. As Mr. James J. Hill pointed out more than a year ago, we have got either to grow a much larger area of wheat or to make more to the acre, or the time will soon be here when this country will have to depend upon other countries to feed the people. We have not increased the area or the production commensurate with the increased population of the country, and the natural result is now being realized. The laws of supply and demand will control whether "corner makers" operate or not. We do not see any reasonable probability of wheat selling below a dollar a bushel again for years to come. The average condition of the present crop is 83.5 compared with 89 on May 1, 1908, and 86 the average for the past ten years. This with the decreased acreage indicates under normal conditions of weather up to harvest a crop of less than 400,000,000 bushels of winter wheat. In Virginia the condition is 98, or ten points above the ten-year average. In North Carolina it is 92, or 6 points above the ten-year average. In South Carolina it is the same as North Carolina. In Maryland it is 96, or 7 points above the ten-year average. In Tennessee it is 92, or 8 points above the ten-year average. These figures go to show that our prospects for a wheat crop this year are good, though we are afraid some damage has been done since these figures were fixed by the dry weather we had in May, but we do not think this will be large, and is not likely to be increased, as we have had good rains in time to check further injury. The time is propitious for a great extension of wheat growing in the South. We do not now grow enough to feed our own people, and we ought at least to do this, and with the prospects for continued good prices—indi-

cated above, steps should at once be taken to prepare for this extension. What our soils need to make wheat production profitable is more humus in them and better preparation of the land before seeding. Cowpeas and crimson clover are the best sources from which to secure the humus, and should be grown on all land intended to be used for wheat production. Cowpeas should follow the oat and wheat crops now growing, and these when the land is not put into wheat or oats again this fall should be followed by crimson clover. We have known a single cowpea crop to increase the yield of wheat ten bushels to the acre. The land should be deeply broken for the cowpeas, and be finely prepared, and an application of 250 or 300 pounds of acid phosphate per acre be applied broadcast, and be worked in. This will usually insure a heavy growth of peas, and also greatly help the wheat following. The cowpea crop should be cut into the land with the disc harrow, and not plowed down previous to seeding the wheat. When plowed down it is not possible to secure the firm seed bed which wheat requires, and much of the nitrogen gathered by the peas is lost by the roots being turned on to the surface. Land which has been well and deeply broken and finely prepared for the pea crop will be in good order for wheat when the crop is cut in with the disc, and the vegetable matter not buried will act as a surface mulch to the crop and largely prevent winter killing. None of the Southern States grow \$1,000,000 acres of wheat. Virginia, which grows the most, has this year only 782,000 acres, and ought to have at least twice that area. To feed our own people we need to produce 11,000,000 bushels per year, and do not make it; and all the other Southern States are still further behind meeting their own consumption.

The latest reports from the cotton planting sections would seem to indicate that a good deal of land which it was expected would be planted in cotton, is being put into corn. The advance of the Boll weevil northward is a menace which planters are loth to tackle, and this, coupled with the lower price for which the last crop has sold, and the great advance in the price of corn has, no doubt, had much to do with this change of purpose. We are not sorry to see this change of crop. We have always regretted the shortsighted policy of Southern cotton planters in growing cotton to sell to buy corn to feed themselves and their teams. It has been abundantly proven that corn can be produced in the South of better quality than Western corn, and with a greater yield per acre, and at a cost of from fifteen to twenty cents per bushel. Surely, when it costs from eighty cents to a dollar to buy a bushel of corn from the West, which it has done for some time past, it is the height of economic madness going on producing from a half to three-quarters of a bale of cotton per acre, worth at present prices from \$25.00 to \$37.50, when it is just as easy to make fifty bushels of corn to the acre at a cost of from \$7.50 to \$10.00 per acre, and worth on the market from \$37.50 to \$50.00, and which corn the growers are bound to have to keep themselves and their teams alive. The curtailment of the area planted in cotton will make it easier to give better attention to that which is planted, and thus bring the production nearer up to a bale to the

acre, which will make its production profitable at present prices, and this profit will be a clear gain, as it will not have to be paid out for corn and meat supplies. The dry weather we had in May has, we fear, caused cotton stands not to be as good as might be wished, and the plants are small, and needing moisture to push them on for chopping to a stand. In some sections much has yet to be planted. This should have immediate attention, now, that we have had rain, and that already planted should have frequent cultivation to encourage growth. As soon as large enough chop to a stand, and thus get rid of the surplus plants, which are consuming plant food which the plants left to make the crop will need. At the last working of the crop sow crimson clover to make a cover for the land in winter, and supply humus and nitrogen to the soil.

There is yet a good deal of corn to be planted, as the dry weather in many sections brought planting to a standstill in the middle of May. This should have immediate attention, as the white corn ought to be all planted by the tenth of June, if possible, except, it may be on the river low grounds, where it may be planted up to the middle of the month. After that time it is safer to plant yellow corn, which may be done up to the end of the month, with a certainty of making a crop fully matured, if the season be normal. Corn planted in the early part of May is looking healthy, though it has not grown fast, owing to the dry weather and cold nights. Cultivation should be frequent and shallow to push the growth. Don't let a crust get formed on the surface to waste moisture. We have none too much in the ground, as the rainfall in most of the South has been below normal all the spring. At the last working sow cowpeas or cowpeas and crimson clover, or crimson clover alone. We are much impressed by the practice of sowing both cowpeas and crimson clover, and letting the cowpeas die down on the land to shade and protect the crimson clover. We have reports of excellent stands of crimson clover secured in this way, and the fallow of cowpea vines and crimson clover has proved of great value as a preparation for the following crop. Where only cowpeas are sown they should be either turned down in the fall or be cut into the land, and crimson clover, with a mixture of wheat, oats and rye be seeded unless the land is seeded with wheat or winter oats.

The planting of the tobacco crop should have immediate attention. It has been delayed much by the dry weather, and plants are not over well grown generally. Care should be taken to have the land finely prepared, and extra care be taken in planting, so that the small plants may have a fair chance of growing off. Commence the cultivation of the crop as soon after planting as possible, so as to encourage growth. We hear that a full acreage is likely to be planted, but we would urge that no effort should be made to greatly exceed the last crop, as Kentucky, we are told, will this year make a large crop which was last year absent from the market. This cannot fail to have its effect on prices. Strive to make a good crop rather than an extra large one. Good tobacco always sells for a fair price, even when the supply is large. Look out for the first crop of worms and kill

them before they have had the opportunity to pupate, and thus lay the foundation for a later crop. Paris green may be safely used to kill this early crop of worms, as all trace of the green will be lost before the crop ripens. The right strength to use the green is one pound of the poison to 160 gallons of water. The later crop of worms should be picked off as the green, when applied when the crop is near ripening is apt to stain the leaves, and this prejudices the sale on the market.

The planting of soy beans and cowpeas for forage and grain crops should have attention as soon as possible. The soy beans should have first attention, as they have a longer season of growth than cowpeas. We hope to see this crop much more largely grown than in the past. Its value as a hay and grain crop is large, and it never fails whether the season be a wet or a dry one to make a crop. In our last issue we wrote fully on the seeding of this crop, and to that issue refer our readers. Cowpeas should be drilled rather than sown broadcast, as much better results will be secured at a great saving of seed. They can be drilled with a grain drill, stopping up all the spouts but three, and this will put them in at a distance which will allow of cultivation, and give a much better yield of peas. If intended to be cut for hay they may be drilled somewhat closer by stopping every other spout in the drill.

Whilst corn is the primary crop for filling the silo, yet we think it may well be supplemented with others. Corn and cowpeas grown together make a much better balanced silage than corn alone, and the crop is just as easily grown as the corn alone. The cowpeas should be planted at the second working of the corn in drills alongside the corn. The best varieties to use for this purpose are the Clay or Whippoorwill. These varieties cling more closely to the cornstalks than the Black, which straggle across the rows and make the crop more difficult to harvest with the machine. In planting the corn for the silo it may be planted closer than for making corn, but yet it should not be overcrowded, as a well grown and well matured corn plant with as many ears as can be obtained makes a much more nutritive silage than closely grown watery, immature stalks, which almost always make a sour, poor silage. Where soy beans are to be grown for a silage crop, they do best planted alone, and should be cut when the corn is cut, and be run into the silo with the corn, through the cutter, so as to be well mixed in the mass. Sorghum makes an excellent silage crop, and like corn, should not be planted too close, but given space to make a well matured stalk. Kaffir corn may also be used for this purpose, and it is well to grow some of this crop, as it will make a yield when the season is too dry for corn to do its best.

Crops for dry forage should be planted this month. The best of these are sorghum (amber cane) and cowpeas, or sorghum alone, cowpeas, soy beans and millet. We are strongly impressed with the value of sorghum and cowpeas grown together. They make a nicely balanced hay, which is relished by stock, and is easier cured than cowpeas grown alone. Half a bushel of cowpeas and a

peck of sorghum sown per acre makes a good mixture, and the cane does not become so strongly grown, and the stalks are, therefore, eaten up more cleanly. In many sections of the South sorghum or Kaffir corn is being largely grown for a dry winter feed. It is planted at the rate of about two pecks per acre in drills, and allowed to grow to maturity, and then is cut and set up in shocks like corn, and keeps well in this form when left out in the field all winter. In some sections sorghum is sown broadcast at the rate of a bushel to the acre, and cut when about half grown, and made into hay, and makes a useful addition to the winter feed. German millet may be sown this month and the next for a hay crop. It makes a quick growth, and when cut before the seed forms, makes a fair hay, which is useful as a cattle feed. If the seed is allowed to mature, it does not make a good hay for horses, as the seed seems to affect the kidneys of many horses. If the seed is allowed to mature the crop draws much more heavily on the land. Some of our subscribers grow this crop in mixture with cowpeas, and like the feed. Grown in this way the peas should be sown in drills a fortnight or more before the millet, and then the millet is sown broadcast and cultivated in. When sown alone millet should be seeded at the rate of a bushel to the acre. When grown with cowpeas half this quantity is sufficient.

Do not let the clover and hay crops stand too long before cutting. These crops make the most and best hay, cut just before coming into full bloom. Let the curing of these crops be done as much as possible in the shade, as the hot sun withers up the leaves and causes them to drop off, and much of the value of the feed be lost. Let hay broadcast until well wilted and then put up into windrows and cure out in this way. Do not overdry the hay. It should go into the barn with some natural moisture in it to make the best and most palatable hay, but should be free from rain water or dew, or it will overheat and may fire. Only experience in handling these crops can dictate the exact time when it is safe to haul the crop to the barn.

See to it that the binder is in good order and ready for the cutting of the wheat and oat crops as soon as these are ready. Do not let them become overripe before cutting, or much grain may be lost, and the quality of the grain will never be so good as that cut just before it is completely ripe. See to it that you have labor sufficient to keep close up to the binder when cutting, so that all grain cut can be shocked up before leaving the field at night. Shocks never stand up as well nor shed rain so well as when put up immediately after being cut. Have good shock hands who know how to put up a shock so that it will shed the rain.

ALFALFA IN EASTERN VIRGINIA.

Recently a representative of The Planter visited the Belle Grove and Walsingham estates on the Rappahannock and studied the operations of Mr. J. F. Jack, who is growing alfalfa there on a large scale. There is much to be seen at Belle Grove and Walsingham that is of intense interest not merely to Eastern Virginia, but to all of Virginia and to the rest of America, for that matter.

Here is being done some exceedingly interesting and valuable work in soil fertility investigation, in use of legumes to build soils, in lime, fertilizers and alfalfa culture.

The soils of these estates was naturally fertile, part of it being a pervious, easily drained, reddish clay loam. It has in it very little lime. Many fields, when Mr. Jack took hold of the property, were not a little impoverished, some of them grown up to sedge and briars, some of them yet in fair state of cultivation. The yield of corn was about twenty bushels to the acre.

The steps taken in bringing this land to a degree of fertility that may be called an alfalfa bearing basis are, first, to plant to corn with good plowing and 250 pounds per acre of raw bone meal. Sometimes other forms of phosphorus have been used, but raw bone has been in large supply. Next, the corn is sown to crimson clover at last working. This year there were 500 acres set in crimson clover on this place, much of it exceedingly heavy and when The Planter man saw it, a marvelously beautiful sight. Some of this Crimson clover is turned under for corn, and part of it for alfalfa.

Last year some 11,000 bushels of corn were grown. No lime is applied to the corn land. Here The Planter thinks Mr. Jack is falling a little short of living fully up to his opportunities. It is probable that on his soil he could increase the corn yield ten bushels per acre by a preliminary liming, in connection with his heavy growth of crimson clover turned under.

Where the land is destined to be sown to alfalfa it is thus managed. First, the crimson clover is turned under; afterward follows careful cultivation to conserve moisture and bring the land under good tilth till August; next, the land is limed. Varying amounts of lime have been used, a ton to the acre of finely ground unburned limestone is the usual application. Then the land is fertilized, inoculated and the alfalfa sown.

Only inoculation by use of soil has proved good. It has been demonstrated repeatedly that inoculation is absolutely essential. There is this year an instance of a check strip being left without inoculation. Where this strip is there is little alfalfa and what exists is only about two inches high; while the adjoining inoculated alfalfa is a solid wall twenty-four inches high and of rich, dark green color.

Mr. Jack is most careful in sowing this inoculating earth to take it from where he has very thrifty alfalfa growing and then to distribute it by hand with great evenness over the soil. Immediately behind the earth sowers come the alfalfa sowers with wheelbarrow seeders, and right behind them come harrows that cover seed and soil so that the sunlight cannot hurt the easily killed inoculating bacteria.

Strips have repeatedly been left without lime to test whether it is needed or not. Mr. Jack has applied about 500 tons of lime in the last two years, so if he can do without buying so much he naturally would be glad to do so. In each instance where lime was left out alfalfa made so poor and weak a growth as to be entirely worthless. Weeds, too, were much more in evidence where lime was not used.

Having tested various forms of lime, Mr. Jack is satis-

fied best with ground limestone, the true carbonate of lime, and this year has bought 600 tons, which will be delivered at the Port Conway wharf for about \$3.00 per ton. It is curious to note that this lime comes from New Jersey, though Virginia has millions of tons of limestone awaiting the grinder.

Various forms of phosphorous have been tested and here is one of the most instructive features of Mr. Jack's work. Under the direction of Mr. Nicholas Schmitz, now of the Maryland Agricultural College, formerly of the Department of Agriculture, there were sown last fall strips fertilized with the following substances:

Raw bone, 400 pounds per acre (the standard application.) Acid phosphate, same amount. Raw bone, 150 pounds. Acid rock, 250 pounds. Floats, or untreated phosphate rock, 900 pounds. Floats, 500 pounds. Floats, 250 pounds. No fertilizer.

Lime was applied to all the plots alike. At present writing there is a wonderful showing in favor of the untreated rock. It seems to promise fully as good results as any other form of phosphorus, and, of course, at much less cost. The explanation of this may be the presence of so much decaying vegetable matter as the heavy crop of crimson clover furnished, or some peculiarity of soil that would make the raw rock soluble. This result will doubtless be a shock to our friends at the Tennessee Experiment Station.

Where no phosphorous was applied the alfalfa is short and very full of cress. The line marking the raw rock is like a ridge or back furrow so luxuriant is the growth.

This year Mr. Jack will test carbonate of lime in varying amounts, from ten tons to the acre down to nothing. He will also make a series of cross plots with different carriers of phosphorus, using on each plot the same money value, taking \$4.00 per acre as his unit and testing basic slag, raw bone, acid phosphate and raw Tennessee rock.

What are the results? There are about 320 acres now set to alfalfa. Most of this is an exceedingly good stand and very thrifty. It is nearly all in good health and vigor. Haying began May 12th. The promise is for a yield of a ton to the acre average, with, of course, areas that will yield far more than that amount.

There has been no failure in establishing alfalfa here when these steps have been followed: First, that the land was limed; next, that it was inoculated; then, that it had humus added to it by manure or turning under clover or cowpeas; then, that it was inoculated and good seed sown in August. There seems absolutely no more difficulty in establishing alfalfa than there is in getting a stand of corn.

Mr. Jack will feed his older fields with more lime, more phosphorus applied right after cutting. He will test basic slag for this purpose.

He sells most of his hay at the wharf for \$15.00 per ton. Dairymen at or near Baltimore are among his customers. It is his intention to set about 1,000 acres to alfalfa.

ALFALFA AND ITS NEEDS.

Editor Southern Planter:

There is no one crop that has of late years attracted more attention among farmers all over the country than

alfalfa. The varying success and failure has shown the fickleness of the plant as to conditions needed, and methods that succeed in one section often fail in another.

Among the many letters I have received in regard to the cultivation of alfalfa is the following from a Maryland farmer: "I have some alfalfa sown in August, 1907. It seems to be weak and spindling and has a yellowish cast. I used some lime on the land, but I fear not enough, and would like to know if it would be well to apply more this winter. It came up thin, but gradually thickened, and this summer I mowed it four times and could have mowed it five times."

There is a widespread misunderstanding among farmers in regard to the effect of legumes on the soil. They are apt to imagine that they can grow a legume crop, mow the hay and still that crop will improve the soil. The legumes have the power to get nitrogen from the air, but at the same time they will exhaust the phosphoric acid and potash in the soil faster than any other crops.

Here is a farmer who does not say whether he applied anything to the land in the way of manure or fertilizer. He is in a district where the soil is peculiarly deficient in potash especially. He applied lime, and one of the effects of lime is to release potash that may be in the soil. He mowed four crops of hay, and now wonders that the alfalfa is spindling and yellow.

I found the same results in another farm which is now under my direction. There is on this farm a field that years ago made a splendid growth of alfalfa. It was mowed several times a year for a number of years, and then plowed and put in corn. The corn was followed by wheat, and then the owner tried to get it back in alfalfa and has largely failed. On my last visit to the place this fall, I found a large part of the field a failure as was to be expected. On another part there was a stand of alfalfa, but it, too, was turning yellow, though that field, too, had been heavily limed. The cause was evidently exhaustion of the mineral elements. I had the yellow alfalfa mowed off at once and left it on the land. The part where the alfalfa had failed entirely was plowed and heavily fertilized with acid phosphate and potash and resown, and the yellow part was divided into three parts for study.

One part received ground limestone at the rate of four tons per acre; another, 400 pounds of acid phosphate and fifty pounds of muriate of potash per acre; and the third was left as a check. My own opinion is that it was the exhaustion of the mineral elements, but as many imagine that lavish use of lime is needed on alfalfa, I am using the ground limestone heavily. The whole will be disced over this spring.

Now, right alongside this last farm is a farm where no lime has been used in the memory of man. But there, on a field in fairly good heart, is a growth of alfalfa that is all that could be desired. As yet, the land furnishes what the plant needs. But I have no doubt that if that field is continuously mowed, there will soon be a failure of the alfalfa from its drawing so heavily on the mineral elements in the soil, and then some one will say that it needs lime, when, in fact, it will need phosphoric acid and potash.

Now, in the case of my inquirer, I have advised him to mow the yellow growth and let it lie on the land, and give

the field a heavy application of acid phosphate and potash. He will get all the lime needed in the form of sulphate in the acid phosphate, and I believe that an alfalfa field that is regularly topdressed every spring with 400 pounds of acid phosphate and fifty pounds of muriate of potash will keep in a perennial productiveness. There is no doubt that on most soils lime is an aid to alfalfa, but that lime is the cure-all and that it will supply the rapid using up of the mineral matters such as phosphoric acid and potash is a serious error. In fact, on the granite soils where I have had most experience, I would rather trust to acid phosphate and potash without lime than to lime without potash and phosphoric acid, and this is still more true of the limestone soils. But the more we study alfalfa, the more evident it becomes that each soil needs special study for its best growth.

The one most important thing after getting the soil completely inoculated with the bacteria that live on alfalfa roots, is in keeping up the supply of plant food. A great deal has been said about inoculation, and many seedsmen are offering seed inoculated with artificial cultures of the bacteria, which are absolutely useless. It has been well settled that the only reliable way to inoculate the soil for alfalfa is to use soil from a field in which alfalfa has been grown successfully and which has become well inoculated with the bacteria. Then, if it is regularly topdressed with acid phosphate and potash, you will get alfalfa, lime or no lime. Lime, on a granitic soil abounding in silicate of potash, will release some potash for the plants, but lime on a soil that is deficient in potash will only tend to the exhaustion of the small store, and on any soil, if there is an abundant store supplied of phosphoric acid and potash, we need less lime.

W. F. MASSEY.

FERTILIZERS AND FERTILITY.

Editor Southern Planter:

"In what consists the productiveness of land? How best can we obtain it?" says Mr. Orgain in the May number of *The Planter*. The productive character of the soil depends on the amount of available plant food it possesses, and the mechanical condition of the soil. There may be a great abundance of plant food really available, but if the soil is in a bad mechanical condition, deficient in humus, running together and baking hard, drying out badly in dry weather, and has not been thoroughly prepared, plants may not be able to get food that is really in an available condition. Mr. Orgain tells about the early days in Virginia, when labor was more plentiful than machinery for the preparation of the land, and recites the fact that the growth was largely burnt on the land, thus driving off the nitrogen and leaving only the mineral or ash elements, the first start towards the using up of the humus. Then, crop after crop of tobacco was taken, which still further robbed the soil, not only by the rapid oxidation of the humus, but taking away large portions of the available phosphoric acid and potash. Finally, there is left the old dead skeleton of sand and clay, the bacteria whose home was in the black vegetable decay are starved out, and the mechanical condition of the soil is such that plants cannot get at the plant food that is really available in the soil under different conditions, since it runs together so hard that the roots cannot penetrate the clods. Had the

mellowness of the soil been maintained by keeping up the supply of organic decay the need for artificial fertilizers would have been less. Then, instead of maintaining the humus in the soil through stable manure or the growing of legume crops, the farmer has gotten into the habit of depending on the sack of fertilizer, and by its readily soluble plant food applied in small amount has still further exhausted the mineral matters in his soil. Not that fertilizers are merely stimulants, they are readily available plant food. Restore the new ground conditions to the soil and the crops will be as good as when the land was first cleared. But merely using fertilizer in small amount to squeeze a little more crop to sell, and constant clean culture in hoed crops, will inevitably have the usual effect—a dead soil. And not because of the use of the fertilizers altogether, but the thoughtless use of them. It is no new thing, as Mr. Orgain supposes, that we urge the farmers as the best means for the improvement of the soil to restore the humus or organic decay in the soil. The great value of stable manure consists in its carrying to the soil large amounts of vegetable matter to become slowly nitrified, and thus to keep up the supply of nitrogen long after the readily available nitrogen in commercial fertilizers would be exhausted. The virgin soil was productive not altogether through the plant food contained in the humus, but also because of its warming influence on the soil, its mellowing influence, which prevented the baking of the soil, and especially in its capacity to retain moisture to aid in the solution of plant foods. Fertilizers furnish merely plant food in an available shape, but furnish no humus-making material.

The proper use of commercial fertilizers in general farming is the increase of the legume crops through applications of phosphoric acid and potash. I have for years insisted that no farmer who farms right, in a short rotation, in which the legumes come in frequently on the land, needs ever to buy nitrogen in any form. The tobacco grower with a crop of crimson clover to turn under needs none, but does need a liberal use of sulphate of potash and phosphoric acid. The Southern farmer who grows plenty of pea vine hay to feed with his corn stover to make manure to spread on a crimson clover sod for corn or cotton needs no nitrogen. In fact, in a short rotation, he will be able to accumulate more nitrogen in his soil than existed there at the start. Mr. Orgain thinks that no form of plant food leaches from the soil. Certainly the phosphoric acid and potash do not, but when nitrogen gets into the form of a nitrate it very rapidly leaches from the land. Hence the importance of having a winter cover crop on the soil to catch and store what would otherwise be lost. There would have been far more of the grey sandy wastes Mr. Orgain mentions but for the fact that nature covers the turned-out land with broom-sedge and pine trees, and in this way, through long years restores what man has wasted. Then a tobacco grower to-day cuts down a second growth of pines to get that valued humus which was wasted many years ago by scratching the surface and planting seven crops of tobacco in succession, instead of practicing a rotation of crops that would restore the humus in a cheaper way than the pine tree does. Then, when I urge the Eastern Shore sweet potato growers that they can get the organic decay

in their soil more cheaply by growing crimson clover on the land in winter instead of letting it leach away its nitrates all winter, and then laboriously rake and haul pine leaves on the land, Mr. Orgain thinks I am making "flings" at them. They are perfectly right in getting humus-making material on the land, but I simply tried to point out a cheaper and better way.

Riding through Accomac and Northampton this spring, I was glad to see here and there a patch of crimson clover, and when once its value is known we will see less and less of the hauling of pine leaves on the land. I never intimated that the pine leaves do no good, for they do, but clover, in addition to furnishing more organic matter than they can afford to haul fixes nitrogen from the air, so that the organic matter from the clover is far better in quality than that from pine leaves. Mr. Orgain uses 500 pounds per acre of commercial fertilizers after covering the land with manure for tobacco. Why does he use the fertilizer if he thinks it is not plant food? If the fertilizer is merely a stimulant perhaps he can explain how it stimulates if the plants do not take it as food.

The absorptive power of soil, and its capacity to retain plant food is certainly wonderful, and, as Mr. Orgain says, it will hold on to everything except the very soluble nitrates, the form in which all nitrogen must be resolved into before plant roots can use it. Hence, the importance of the humus, in which the nitrifying bacteria are continually bringing nitrogen from organic matter into the available form of nitrates for the growing plants. But every crop grown, and every animal raised on the land is reducing the phosphoric acid in the soil, and when this becomes deficient there is no way to restore it except through an application of phosphoric acid in some form. We can get nitrogen from the air by the use of the legumes, but we cannot get phosphorus nor potassium, and the legumes themselves take these more rapidly than other plant food.

Down around the border of the great Dismal Swamp there are large areas of reclaimed land with a soil made up of organic decay from three to six feet deep, which grows immense corn stalks, and yet does not make the heavy crop it should unless some phosphoric acid and especially potash is applied. The soil is rich in organic nitrogen, but deficient in mineral plant food. Humus is the most important matter in the restoration of our soils, but to get it there in the most economical way we must restore the phosphoric acid and potash of which the soil has been robbed in its earlier days, and especially the phosphoric acid which is usually in clay soils in smaller amount than potash, and hence is sooner used up.

Mr. Orgain and I certainly agree as to the importance of humus and the feeding of stock to make manure, but he fails to realize that the exhaustion of the mineral matters is also the great reason for the failure of wheat where it once succeeded. There are farmers in this State who regularly make forty to fifty bushels of wheat per acre, who buy no fertilizer except acid phosphate, and that for the wheat only. But they grow clover!

W. F. MASSEY.

FARM NOTES.

Editor Southern Planter:

In your April issue, Professor Massey cites a case where

alfalfa had been grown for over fifty years on a red clay soil of granite formation, near Hillsboro, N. C., without liming. He also says "the soil around Hillsboro is not a limestone soil."

The fact that the soil was red and of granite formation also is presumptive evidence that it was wholly or partly a hornblendic granite, and as hornblende is about one-eighth lime, it is easy to understand why it did not need any more lime. But were it a typical micaceous granite soil of a gray or even reddish color (because a small amount of iron goes a long way in staining soil red), then there would have been a very different story to tell for sure.

I don't infer, as does Mr. Wing, from Professor Massey's letter that "he claims lime may be positively injurious to alfalfa," but it is more than probable that he is mistaken as to lime in the soil about Hillsboro. Although I was never there, I know some similar instances. It is due to Professor Massey that he was the first man I ever read after to point out how important lime was to alfalfa, and it would not be easy to be too emphatic about it.

In March, 1909, I saw a nice little field of about one acre of alfalfa just outside the town of La Fayette, Chambers county, Alabama. On March 29th it stood twenty inches high and was a beautiful stand clear of weeds. I was told that there was another and a larger field Southeast of town, which I also went to see. It was not quite as good as the first, but was very nice. The soil was red and made from rock decomposed "in place," as miners say. I was in a hurry, but on a hillside and ledge I saw some of the partly decomposed rock and could not tell whether it was a granite or a schist, but I distinctly saw the black green crystals of hornblende, and it seemed to me that most of the rock consisted of them.

All through this region where hornblendic rocks are found they are generally decomposed to great depths—in some places one hundred feet—being somewhat porous and very perishable, the carbonic acid and the air carried down in rain and drainage water attacks the lime and the iron of the hornblende with ease, leaving a very porous and pumice-like shell which alfalfa roots can penetrate, and which is well and evenly supplied with lime. In fact, affording an almost ideal home for alfalfa roots. Many such soils in this region have little veins of "apatite" (which is a mineral phosphate of lime) traversing them, and as the rock also contains felspar there is no lack of either potash or phosphoric acid in the crude state at least, though the phosphoric acid is not so evenly distributed as the potash or the lime. I have been told that the Rev. C. W. Howard, of Habersham, Virginia, raised lucerne fifty years ago on such a soil derived from granite rock, but carrying hornblende or some allied mineral.

I have good reason to think that there are many localities in the Piedmont country where the soil is naturally calcareous enough for alfalfa to start with anyway.

Professor Massey says in regard to inoculation: "Soil from a field that is already inoculated is the best means for transferring the bacteria." Unless many precautions are taken, that may fail too, and worse than fail. Simply scattered broadcast, inoculated soil does little good. The best plan is to drill it with the seed like a fertil-

izer. Then seed and microbe will be more likely to come in contact. Where the seed is sown broadcast a good plan is to make a gruel of the inoculated soil and use enough of it to wet the seed and then sow and cover at once. That was the best plan I ever tried where the inoculated soil was sticky clay. Some of the mud always adhered to the seed, and that suggested to me that if some sort of gum or weak paste was used to mix with the bacteria of those cultures there would be something like that sticky clay to fasten the microbes to the seed. The watery "cultures" have no "body" to them to afford shelter to the microbes. Hence, they are rubbed off or killed by exposure to sunlight, a very small amount of which is surely fatal.

In regard to using inoculated soil from an unknown field, I had a long, hard battle with Johnson grass and a narrow escape of nut grass, and in looking over "Plant Life in Alabama," I saw a multitude of fungus and other parasites that infected soil may spread, and knowing how our common weeds are disseminated, I would think twice before using any soil I was not perfectly sure of. A parasitic plant or animal that does little harm in one environment may become a terrible pest in a different one, as witness the browntail moth in New England, or the boll weevil in the South, or the "black potato rot" in Ireland brought with guano from Peru nearly seventy years ago, or the Colorado potato beetle, the Hessian fly, the Phyloxera, and the whole crowd of "wilts," "rots," "rusts," "mildews," etc.

Clay Co., Ala.

JOSHUA FRANKLIN.

NOTES ON THE APRIL PLANTER.

Editor Southern Planter:

I knew it was coming. Professor Massey, the "critic" of the Southern Planter finds, fault with these expressions I used: "Protoplasm, the building material of plants," and "we are at sea in regard to nitrogen."

I fully admit that protoplasm, though it forms a large part of the building material of plants, cannot properly be called the building material of plants, because it acts more as a builder than in the other capacity. Saying "for the formation of the vital parts of plants" would have been more correct. In calling protoplasm the building material of plants, I wanted to emphasize the necessity of a liberal supply of nitrogen, and preferred building material as the word which would generally be best understood and pointed out the necessity in this connection for a liberal supply of nitrogen. I hope no harm is done, and I promise to be more careful in the selection of words in the future.

When I said "we are at sea in regard to nitrogen," I meant what I said. With regard to the many known and unknown factors which influence the supply of nitrogen, nobody has so far been able to figure out how much nitrogen will be at the disposal of a crop during a growing season. That under certain forms of management, favoring the production of large quantities of manure, or the turning under of green manure, the soil becomes richer in organic nitrogen, is well known. In general, I do not recommend the application of nitrogenous fertilizers in preference to manure or green manure, but recom-

mend these fertilizers to cover a possible deficit of nitrogen. But when Professor Massey says that worrying about nitrogen will do for planters but not for farmers, he is sadly mistaken. Professor Massey, in order to strengthen his argument, refers to a farmer who for seventy years has made forty bushels of wheat per acre and had never bought any fertilizer during that time other than acid phosphate. As far as that goes, I have seen the black soils in Southern Russia and parts of Hungary where the finest crops of wheat have been grown for centuries, and not a pound of manure or acid phosphate has ever been applied. That farmers who farm their soils according to Professor Massey's prescription have not of necessity to worry about nitrogen is true. Unfortunately, they cannot all do this. The growing of leguminous crops in short succession, where they have been grown for years, results in legume-sick soils—whatever that is—and in unprofitable crops. This has been noticed in the older countries, especially in Germany, where even forty years ago leguminous crops were the most important crops, and a rotation without leguminous crops considered unprofitable. Twenty years ago their growing was reduced to five per cent. of the tilled area, and last year—1908—to one per cent. The leguminous crops have been displaced on many farms by the root crops, and the excellent tilth of the soil which is necessary for the successful growing of these crops has resulted in thirty per cent. increase in yield of the other crops. Notwithstanding that the German farmers apply as an average eight tons of nitrogenous manure per acre every other year, and grow leguminous crops as often as the conditions will permit, the demand for nitrogenous fertilizers is steadily on the increase, their application having reacted sixteen per cent. of the total applied fertilizers.

The yearly average for 1905, 1906 and 1907 was:

Thomas Slag.....	1,417,000 tons.
Super-phosphate	980,000 tons.
Bone Meal.....	90,000 tons.
Kainit	1,377,000 tons.
40 per cent. Potash salt.....	113,200 tons.

Total3,977,200 tons.

Nitrate of Soda.....	575,000 tons.
Amm. Sulphate.....	246,400 tons.

Total 821,400 tons.

Factory mixed fertilizers are not used in Germany. The farmers select the separate fertilizers according to the needs of the crops and the physical conditions of the soil.

Whether the supply of nitrogen from turned under organic matter is sufficient to supply the crops during a rotation, depends upon the quantity and quality of the manure, the green manure, the liberated and nitrified quantities during the growing season, and the indirect influence of the grown crops. The hoed crops, due to their frequent cultivation, exhaust the soil quicker of humus and nitrogen than the other crops.

I have before me a description of fifty of the largest

and best managed farms in the potato belt of North Germany. The proportion of the crops is:

Grain crops.....	51.7 per cent.
Leguminous crops.....	6.5 per cent.
Hoed crops.....	26.0 per cent.
Fodder crops.....	12.8 per cent.
Fallow.....	3.0 per cent.

Total.....100.0 per cent.

Besides the working horses, thirteen head of large live stock of 1,000 pounds live weight, or a corresponding number by weight of other farm animals, are kept for every one hundred acres. Besides the produced manure, green manure is turned under and large quantities of commercial fertilizers are used. The proportion of the separate fertilizers is:

Nitrogenous, most in form of nitrate of soda.....	37.0 per cent.
Nitrogen and phosphoric acid, in form of guano, tankage, etc.....	8.0 per cent.
Phosphoric acid alone.....	29.0 per cent.
Potash.....	26.0 per cent.
Lime	2.2 per cent.

Total.....100. per cent.

Whether the supply of nitrogen is sufficient also depends upon the intensity of the management, and the purpose for which the crops are grown. This refers especially to the growing of brewing barley and potatoes for manufacturing purposes. The supply of nitrogen for these crops may be insufficient, or it may be too large, which would result in barley and potatoes poor and unfit for the purpose for which they are grown in starch. The best results are at present obtained if the greater part of the necessary nitrogen is supplied by decomposing organic matter, and the balance adjusted by nitrogenous fertilizers.

Professor Massey mentions the ocean of nitrogen over the soil. It will be of interest to the readers of the Southern Planter to get an idea how much nitrogen the soil takes up from the air. The data on hand, irrespectively of some pot experiments, is very meagre, and the quantities will quite necessarily differ on different soils, the cultivation, bacterial activity, etc. The only data I have been able to find covering a long time is the two hundred years official record of the farm, Arnstadt, in Thuringen, Germany. The farm belongs to the Prussian Government and was managed by the Government (it is now rented) from the middle of the sixteenth to the middle of the eighteenth century, and a strict account was kept of the receipts and expenditures.

The adopted rotation was the then popular three-field rotation: One, fallow; two, winter grain; three, spring grain. The wheat and wheat straw was sold; the spring grain, together with the hay from the permanent meadows, fed, and the produced manure applied on the fallow to the wheat. The meadows were topdressed with whatever waste accumulated at the farm. The records show that as an average 8,344 bushels of wheat and 500 tons of straw were sold every year, and 462 tons of manure produced and applied.

In comparing the quantities of nitrogen, potash and phosphoric acid removed from the soil in the sold grain

and straw, it is of interest to note the large quantity of nitrogen removed from the soil in two hundred years—2,960,000 pounds, against 924,000 pounds returned to the soil in the manure, leaving a deficit of 2,036,000 pounds, which must have been taken from the air, as no other source is mentioned.

During the same time 646,800 pounds of potash were removed from the soil, and 760,000 pounds of phosphoric acid. The quantities removed per year are therefore approximately: 10,180 pounds nitrogen; 3,234 pounds potash; 3,800 pounds phosphoric acid; or, per year per acre: 13 pounds nitrogen, 4 pounds potash; 5 pounds phosphoric acid.

The quantities of nitrogen the soil obtained from the air are small compared with the large quantities the farmer obtains from the growing of leguminous crops. According to Dr. Weiske, leguminous crops leave in the stubble and roots the following average quantities of organic matter and nitrogen in the soil:

Crops.	Organic Matter	Nitrogen.
	lbs. per acre.	
Four years alfalfa.....	9,360	136
Red clover.....	8,879	190
Three years sainfoin.....	5,102	123
Lupines	3,509	62
Canada peas.....	3,208	56
Serradella	3,115	65

These figures are, in so far of value as they explain the difference in the residual effect of different crops. But, notwithstanding the beneficial effects of these crops, they have, on many farms, been displaced by the still more profitable root crops, notwithstanding the larger outlay necessary for nitrogenous fertilizers.

District of Columbia. H. WINKELMAN.

NOTES AND COMMENTS ON MAY ISSUE.

Muriate of Potash.

Editor Southern Planter:

That muriate of potash is just as good for potatoes as the sulphate, I am perfectly sure, not only from my own experience, but from that of others. Some Northern growers think that the sulphate makes a more mealy and dry potato, but, so far as the early crop from the South is concerned, they are sold in rather an immature condition and are not expected to be mealy, though potatoes grown here to perfect maturity I have found as mealy as any from further North. But when it comes to the tobacco crop, it is a very different thing, for, in my experiments with tobacco, the muriate not only injured the burning quality, but retarded the maturity of the leaf and made leaves of poor color as compared with the sulphate.

A man in Granville county, North Carolina, got a formula from me for tobacco and made a fine crop, which sold for a fine price. The next season another man got the same formula, and reported a very inferior crop. He had it put up by a fertilizer factory in Norfolk. I got him to send me his bill. The quantities I had named were all right, but when it came to the potash the bill said "sulphate of potash, low grade," and in almost microscopic characters, at the end of the line "kainit." Hence he not only got less than one-fourth the potash my formula called for, but had it in a form that damaged his tobacco. Evidently a scheme to prevent his continuing to mix his own fertilizer. And yet the tobacco

growers in North Carolina very largely use the usual 3-8-3 goods in which the potash is almost invariably kainit.

Corn.

Mr. Ely says: "On rolling land it is a good plan to let rows run around the hill, and well to ridge them somewhat to prevent washing." For that reason especially there should be no ridging. It is all right to run rows around the hill on the level contour, but if ridges are made there will be heads of water gather in them to break over one after another and cause a worse gully than if the rows ran up and down the hill, which they never should do. Flat cultivation is more important on rolling land than anywhere else.

Plowing on the level contour of the hills is the universal practice in all the cotton country, but I saw recently in Northern Ohio hillsides where the corn had been planted in straight rows up and down the hill, and between every row there was a gully. Why any one should want to tax a team by pulling plows and cultivators straight up hill I cannot understand, when it is so much easier and better to plow on the level.

One great reason for the small yield of corn in the South is thin planting. The notion has become prevalent that because corn grows tall in the South it must have greater distance, or, as the fad now is in some sections, must be stunted in its early growth. To get a good crop of corn there must be stalks enough on the land to carry it. Mr. McQuarrie, down in West Florida, makes one hundred bushels of corn per acre, but not in rows six feet apart with one stalk in a place at similar distance, as I have often seen. By proper breeding and selection, it is perfectly feasible to reduce the stature of corn. Last year a man wrote to me that he planted Cocke's Prolific that I had been breeding and some from Richmond of the same variety, and mine was two feet shorter. A recent bulletin from the Illinois Station shows the marked results from planting seed from the ear next the ground. Deep fall plowing is excellent, provided there is a winter cover crop sown, but I would never leave any land bare all winter in the South.

Alfalfa Growing.

Mr. Wing seems to have misunderstood my object. It was not to show that lime is not needed for alfalfa anywhere, but was a mere statement of facts. Right there alongside the land where alfalfa failed after liming an old gentleman has been growing alfalfa since before Mr. Wing was born and he has never bought a bushel of lime for his land in his life, and it is the usual red clay Piedmont soil of the South, the result of the decomposition of feldspathic rocks. And right around that neighborhood Lucern, as they call it, has been grown for fifty years. But this does not mean that in other soils lime may not be needed. But I think that "Brother Joseph" is too enthusiastic on lime and advises too heavy applications for any purpose. Then, as to the value of alfalfa in the South, Mr. Wing will admit that it needs rich soil and regular fertilization. Most of our Southern lands need building up in humus, and alfalfa is not a crop to take into the general rotation for farm improvement. It may be well enough to have a pet lot of alfalfa to spend money on, but in the general cropping of the land I can get more feed and improve the land faster with

cowpeas and crimson clover in the South than any one can with alfalfa. We never can grow alfalfa in the South as they do on the Western plains, and the farmers in the Western plains will never grow cowpeas and crimson clover as we can in the South. It is a matter of growing the crops best suited to our conditions. We can get a crop of two tons per acre of fine hay after a small grain crop has been taken from the land, and can leave the land in the fall set in crimson clover, and that on land where alfalfa would make no crop at all, and we would have the manure from the pea crop to go on the land the next spring, while the alfalfa man would simply be wondering whether he had a stand or not. As crops for the general farm rotation in the South, I would never exchange cowpeas and crimson clover for alfalfa. Down in the fertile alluvial soils of Louisiana, alfalfa may grow luxuriantly, and I have seen pet plots of it here and there in various sections, but the failures have cost more than to have gotten many times the amount of feed with peas and clover. Alfalfa may grow through two inches of lime in Louisiana, but in North Carolina, where the same careless dumping was practiced, neither alfalfa nor anything else was growing, the land was absolutely bare where the lime was applied so heavily. I thank Mr. Wing for his good opinion of my work. I have always given the farmers my honest opinion on all subjects, and have spent my life with little personal profit in the effort to uplift the farming of the South. Doubtless, I make mistakes, as we all do, but I write what I believe.

Flings.

Will Mr. Orgain show where I have ever made a "fling" at the Eastern Shore? There is no section I love more, for I was born in Accomac, and there is no section in whose prosperity I take a greater interest. I have simply said that the Virginia potato growers are wasting labor to get organic matter in their soils by raking and hauling in a laborious way the leaves and trash from the forest, when they might get more and better humus-making material by growing crimson clover. It was no fling, but simply an earnest effort to help. I take great pride in the prosperity of the Eastern Shore, for the growers there are prosperous, as a rule; but if I can help them to be more so, and to improve their land with less labor, I should hardly be charged with making "flings." Probably I am more familiar with Accomac and Northampton than Mr. Orgain is, and know more what they need, for I hate to see their lands lying bare all winter when there should be a winter cover. Our best friends are those who point out our faults.

Mr. Orgain is right in valuing humus-making material, for the greater store the soil contains the more moisture it will retain and the more effective the commercial fertilizers will be because they will be dissolved. But fertilizers, Mr. Orgain, are plant food all the same, and not mere stimulants. But when a man puts one hundred to two hundred pounds of a low grade fertilizer per acre on poor land, it may in that event act as a stimulant, for the crop will use up the little application and then draw on the soil for more. Manure made from feeding the legume crops that have been made larger by applications of phosphoric acid and potash will always tell on the land, and, used in this way, the mineral plant foods can be made the most efficient means for the restoration of our worn soils. Mr. Orgain simply failed to understand

the result of the experiment he quotes. It showed the importance of the plant food being in a soluble form. A soil may have an abundance of plant food, but it will do little good if locked up in an insoluble form so that plant roots cannot use it. I am a pretty old man, but I do not remember that any of the farm journals ever advised the dependence only on commercial fertilizers for the improvement of the soil. We have for more than a generation been urging the importance of restoring the wasted humus, and that this can be most economically done through the growing of legume crops aided by liberal applications of acid phosphate and potash. Nitrogen, as a nitrate, will rapidly leach from the soil, but the phosphorus and potassium will not, and we must keep up the stock of nitrifying material in the soil for the bacteria to feed upon. Mr. Orgain is on the right track in getting crimson clover on his land. It is a great deal cheaper than hauling woods trash there.

Replanting Corn.

I wish to add just a few words in regard to what Mr. Lockhart says. Probably in Fauquier they plow sod for corn, and in that case there is always more danger from grubs and the corn root web worm or bud worm, as it is called, for not only are the beetle grubs found in sod, but the bud worm lays its eggs in early summer on grass and its larvae feed on the grass. They pupate in the surface of the sod and the mature insect comes out and lays eggs on grass, if plentiful, or on corn, if it is there, and the larvae feed on the terminal bud of the corn. Now, if the sod is turned in the late fall, roughly harrowed, and left for the cold to act on the pupae, there will be less bud worms, and if a winter cover crop is sown and the land replowed in spring there will not be near so much transplanting needed. If the worms attack the early planted corn seriously it would be better to plow the field again and plant all over as the later planting will generally escape and the buried larvae will be destroyed. I should suppose there will be no difficulty in maturing a crop of corn in Fauquier planted in early June even.

Truck Returns.

Doubtless, the returns quoted from the Long Island Railroad Experiment Farm may have been realized by growers in the immediate vicinity of New York who haul their products to the city and sell from their wagons. But the man who depends on the Southern railroads and the New York commission men will usually come a good ways short of getting such returns. It is Mr. Fullerton's business to boost Long Island too. W. F. MASSEY.

There is one value attached to tillage that is often overlooked. It is just as necessary for the soil to be well supplied with air as for animals in the stable. The roots need oxygen. It is also essential to proper chemical changes in soil constituents and to the myriads of microorganisms which are necessary for plant life. In tilling the soil, we not only conserve moisture and admit air, but we save heat as well, for not a drop of water can be converted into vapor without the expenditure of heat.

REALISM.

Artist.—This picture I call "Pigs in Clover."
 Critic.—I see the pigs, but where is the clover?
 Artist.—The pigs ate it.—Cleveland Leader.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

What with marketing the fall planted cabbage crop and the early spring planted vegetables and the berries and small fruits, cultivating newly sowed and set out crops and preparing for and sowing and planting successional crops for late summer and fall, the month of June is one of the busiest in all the year for the trucker and gardener and he will need to economize time and have good organization if he is to keep thing going along satisfactorily and come out at the end of the season with the profit on the right side.

Watch closely the maturing of the crops and ripening of the fruit and do not let them get past their best condition before gathering and shipping. Be careful to cull closely and ship only the best in clean, ventilated crates and boxes well packed and marked with name of grower and place and keep cool until started on their journey to the markets. Mark plainly the quality on the packages and thus get a reputation, and then be careful to live up to it. Culls and inferior products should be kept at home and be there utilized either for stock feeding or, in the case of fruit, be canned or dried.

We are glad to see the extension of the co-operative system of marketing truck and fruit crops. When this becomes general throughout the country much better average prices will be obtained and the people will be much better supplied with truck, garden and orchard products. Growers should join these Associations and comply strictly with their requirements and, where they do not exist, should get together and organize such Associations.

Successional crops of sweet corn, peas, beans, canteloupes, melons, squashes, tomatoes, peppers, and egg plants should be set out so as to continue the supply as late into the fall as possible.

The planting of Irish potatoes for the winter crop should have attention during this month. The best seed to use for this purpose is that which has been kept in cold storage or has been carefully kept at home in the dark at as low a temperature as possible to keep out frost during the winter and spring. Where cold storage sets are used they should be spread out on the barn floor for a week or ten days before planting to warm up and commence to sprout. In our January and February issues will be found advice as to the fertilizer to use for Irish potatoes. At this season, however, it will not be necessary to use so high a percentage of nitrogen as for the earlier crop as the ground is warmer and nitrification in the soil active. Where the second crop Irish potatoes are grown for sets the sets for this crop should be selected from the early grown crop as that crop is dug. Select sets of a medium small size. The sets for this crop are not cut but planted whole. The importance of growing this crop in the Eastern sections of the State has been finely illustrated by the experience of the pres-

ent year. The loss sustained by non-sprouting of Northern grown seed has this year been heavy, whilst second crop seed, home-grown, has made excellent stands. The selected sets should be spread out in the open air in the shade to green for a week or two and then be bedded down in a little woods earth or good soil scarcely sufficient to cover them. They will at once commence to sprout, and only those sprouted should be planted. Throw out a deep furrow and plant in the bottom and cover lightly with soil, and as they grow work in the soil until level and keep level during the growth of the crop. The sets should be planted from the middle of this month to the middle of July.

Do not neglect to spray the Irish potato crop with Bordeaux mixture to prevent blight. Do not wait until the blight starts before beginning. It is then too late to avoid loss. Spraying four or five times pays well. It has added one hundred bushels to the acre in yield in many cases. When potato bugs are present mix Paris green with the Bordeaux and kill them at the same time as you prevent the blight. Use a pound of the green to one hundred gallons of the Bordeaux.

When setting out tomatoes plant a hill of corn every five or six yards in the row. The worms which damage the tomatoe plants and fruits prefer corn to tomatoes, and when on the corn plants these can be cut down and fed to stock and thus be gotten rid of. Melon bugs and lice can be kept in control by using tobacco dust on the plants when wet with dew or rain.

Celery seed should be sown this month for the plants which will be required to be set out in July and August. Celery seed is slow to germinate. The bed should be made very fine and rich and should be in a shady situation or where it can be shaded until the plants have made a good start. Sow the seed in drills four inches apart and press into the soil with the back of the spade or a light roller and cover with a dusting of fine soil and make damp and then lay mats on the bed to keep in the moisture for a week until germination starts, when these should be removed and a light shading be substituted of plant bed muslin held a few inches above the bed.

Set out sweet potato plants. A good sandy loam is the best for this crop, but should not be too rich or the crop will run too much to vine. A good fertilizer for this crop can be made by mixing 150 pounds of nitrate of soda, 250 pounds of acid phosphate, and 150 pounds of muriate of potash, and applying the quantity to an acre, if the land is poor, reducing the quantity where the land is in better fertility. We would like to see our Virginia growers raise more of the fine sweet Southern yams, not the poor, big, white yams now grown. Northern consumers are learning to prefer these to the dy, mealy sweet potatoes grown so largely here and in New Jersey. The variety to grow is the Barbadoes or the Norton or Pumpkin yams.

TRUCKING PROSPECTS IN TIDEWATER VIRGINIA.*Editor Southern Planter:*

Prices received for cabbage are very discouraging. Quotations last week ranging from forty to sixty-five cents per barrel. These prices will scarcely pay shipping expenses. Prices at this writing are slightly higher. The quality of the cabbage being shipped is very good, the low prices tending to retard cutting until the heads are thoroughly matured.

Garden peas are moving very satisfactorily. The quality is somewhat above the average. The pea aphid which caused so much damage last season is not nearly so destructive this year. Anthracnose and blight are reported in a few fields, but the extent of the damage from these causes is comparatively slight.

Norfolk strawberries have been on the market for some weeks. The quality and quantity both are slightly below the average. Prices received are from 50 to 100 per cent. lower than at the corresponding week last year. Strawberry shipments will have practically ceased by the 25th of May.

Somewhat careful investigations of the potato conditions in the Tidewater counties of the State indicate the loss from poor germination will not be so great as anticipated. Conservative growers from the different counties place the loss from this cause at from 20 to 40 per cent. of the crop. In some localities the stand is fully up to 95 per cent. of the average, while in others it will not be over forty per cent.

The outlook for the tomato crop is good. The acreage seems to be somewhat smaller than usual, but the plants are in a healthy condition. With favorable weather a good crop will undoubtedly be harvested. The acreage devoted to cucumbers and canteloupes is somewhat larger than usual. The striped cucumber beetle is causing quite a little damage in some localities, but the more progressive growers are adopting means of controlling the insect. A large number of growers are planning to spray their cucumbers and canteloupes with Bordeaux mixture to prevent the mildew and other fungous diseases which have proven so detrimental to this crop in the past.

Truck Expt. Station, Norfolk, Va. T. C. JOHNSON,
Superintendent.

FRUIT PROSPECTS IN VIRGINIA.*Editor Southern Planter:*

Since last month the situation regarding fruit prospects have changed somewhat. At time of spraying after falling of bloom all orchardists reported prospects as better than expected, but a few days later the apples fell off very heavily and at present the situation in Albemarle county may be summarized as being a very short crop of apples on the lower lands; in many cases practically none. In the Blue Ridge the situation varies from a very short crop in some cases to quite a heavy crop in other orchards; those trees which did not bear last year have full crops, or nearly so. Those trees that bore any considerable quantity last year are short in proportion to what they then bore. While there will be considerable apples shipped, yet I regret to report prospects for a short crop.

Peaches are killed on the lower lands, but on the mountains there are some above the 1,000 feet line; in the higher orchards of this "green belt" there are full crops.

The Bilyeu Comet and Carman seem to have stood best. While there are a very few cherries in the "green belt," below the 1,000 feet line there are none; no pears; strawberries which promised well are now ripe, but are being cut short by the dry weather, and if rain does not come in a day or two from this writing (May 20th) the crop will be ruined. This report is not very encouraging, but we have to take the rough with the smooth. From what I hear, I believe the above will pretty well represent conditions in other parts of the commercial fruit section of the State. I may add that I have found in former years that as time advances we often find we have more fruit than we expect at the time when the fruit is small and looks far apart. As it increases in size it shows itself better, and we find there is more than anticipated. I only hope this may be the case this year.

Crozet, Albemarle Co., Va. WALTER WHATELY,
Secretary Va. State Horticultural Society.

**INSTITUTE WORK BY THE VIRGINIA STATE
HORTICULTURAL SOCIETY.***Editor Southern Planter:*

The Society, following out its policy of giving as much education in horticultural matters as possible, as well as explaining the benefits of membership in the Society, is continuing its Institutes in different fruit centres. Early in April a meeting was held at Lovingston, Nelson county, presided over by Major W. M. Boyd, one of our prominent members, at which there was a good attendance in the court house. Professor Price, of Blacksburg, gave an address on Horticultural Topics, followed by Mr. Walter Whately, Secretary of the Society, on behalf of the Society, and Mr. T. W. Woollen, of Crozet, Manager of the Virginia Growers' and Packers' Association, on the necessities for better packing.

On May 1st a meeting was held at Purcellville, Loudoun county, on which occasion, though the weather was unfavorable, there was a better attendance than could have been expected. This meeting was presided over by Mr. Nickells, a prominent local orchardist; Professor M. B. Waite, of the United States Department of Agriculture, gave a most interesting address on orchard technique, which received close attention from the audience, followed by Mr. W. Whately, who on this occasion had the double assignment of speaking on behalf of the Society and also on the subject of improved methods of packing. This closed a series of such Institutes held by the Society throughout the winter, during which the Valley, Piedmont, and Southwest Virginia have been visited. There appears to be no doubt from the interest displayed that these meetings have been much appreciated, and we hope will be productive of much good.

The Society intends to do all in its power to educate and interest the fruit growers of the State and have now made arrangements with the United States Department of Agriculture to send to each member four instructive bulletins on "Fungicides," "Pruning," "The Apple, and How to Grow It," and "Control of the Codling Moth and Apple Scab." Any member of the Society may obtain these, with all other literature issued by the Society, as well as a copy of its annual report, free. Membership is only \$1.00 per year, and the member obtains far

more than the worth of this. If we don't grow good fruit in Virginia it will not be the fault of the Society.

Crozet, Va.

WALTER WHATELY,
Secretary and Treasurer..

THE COTTON SITUATION AND SOUTHERN TRUCKING.

Editor Southern Planter:

There is the usual advice being urged on the cotton farmers to reduce the acreage, and it will be followed by the same results. Every man who gets the notion that there is going to be a reduction will plant more acres in hopes of getting in on the higher prices, and the result will be another bumper crop, and low prices in the fall.

I have recently been all through the cotton section, from North Carolina and Virginia to Florida, going by one route and returning by another. And all through the cotton country I found the entire earth bedded for cotton, evidently preparation is being made for another great crop. As a friend in North Carolina said, "The Southern farmers in the cotton country will never go to farming till whipped into it by low prices." But, nevertheless, here and there farmers are breaking away from the old ruts and there never was a time when there was more inquiry in regard to farm rotation and soil improvement. And yet, one riding through the country, and seeing all the land in view prepared evidently for cotton would come to the conclusion that all the efforts that have been made to get the Southern farmers into better practices have been in vain.

Unfortunately we do not see all from the railroad train. And yet it is not the Southern cotton farmer only who is farming badly. I spent two days riding around among the truck farms at Norfolk, both among the smaller growers about Lambert's Point, and over on the great farms of the West Branch. And here, too, I found that the constant cultivation of the land, with heavy applications of commercial fertilizers is having the same effect as the constant cultivation in cotton. The soil has got ten acid and deficient in humus, and the truckers complain that some crops that were formerly profitable can no longer be grown.

About Lambert's Point, the lettuce crop and the spinach crop are both failing. The plants seem to winter and then die off. The lettuce turns red and gradually disappears. Tests with litmus paper show intense acidity in the soil, and the hard baking crust showed the lack of humus.

And yet these growers are using far more stable manure than the large truckers on the West Branch. I suggested that they must make a rotation with peas and crimson clover, but they thought that on their land, valued at more than \$1,500 per acre, they could not afford to do this. I told them that in my opinion, they could not afford not to do it, for they admitted that for several years they had been making no money.

The only man in the Lambert's Point section who seemed to be doing well is a man with a small place, who is working 3,700 glass sashes on hotbeds and frames. This man, the 20th of March, had thousands of cucumbers and egg plants in little veneer boxes in his hot

beds, and was gathering a fine crop of radishes and lettuce from his frames.

After the frames are empty of these crops he will run a furrow through the middle of the frames and partly fill it with manure, and bed on that, and in each sash will set a cucumber hill from the boxes, and will keep them protected with the sashes till the weather is settled, and then will let them run, and will have cucumbers far ahead of his neighbors.

At New Berne, N. C., a large grower told me that he had shipped all the lettuce from his frames covered with glass, but that in the frames on which cloth is used and steam, too, at times, the lettuce was just coming in. I have for years been urging the Southern truckers to use more glass, but the reply is that it costs so much. At Wilmington, N. C., I visited a man who had about two and a half acres in cloth-covered frames. I asked him what it cost to make these frames. He said \$800 an acre, and the cloth to be renewed every two years. Glass sashes at present price would cost between \$3,000 and \$4,000 per acre, and if taken care of, would be good for twenty years. Therefore, in the long run, the glass is far cheaper. Not only this, but in the glass frames the crop is enough better every year to pay for the cloth, and no steam heat is needed as in cloth-covered frames, at times.

I told these people about what I had seen at Cleveland, Ohio, where, on land worth thousands of dollars per acre, the growers have spent many more thousands in the erection of immense green houses covering many acres, heated in a most expensive way, with hot water apparatus or steam, for growing lettuce, tomatoes and cucumbers, and were making money.

With the abounding sunshine and milder climate in the upper South, just as good lettuce can be made in cold frames, and green houses built and heated like those in Ohio could be used for tomatoes and cucumbers and other crops at far less cost than in the dark weather up on the Lakes in winter, and if the Cleveland men could make money in growing these things, the Southern men could make great fortunes at the same business.

Winter forcing in regular green houses is yet to be the development in the upper South, and the men who first get into it are going to reap a great harvest. I saw one place in Cleveland where a man has six acres in green houses, and all were planted in lettuce when I was there last fall, and are now in tomatoes and cucumbers. About seventy acres are there in vegetable houses, and many more at Ashtabula, and at Grand Rapids, Mich., while at Irondequoit, N. Y. I was told that there are 200 establishments in this business of winter forcing. Then at Belmont and Arlington, near Boston, are many more acres under glass for winter vegetables, and all in climates where heavy expenditure must be made for coal, and where sunshine is rare in winter. The Norfolk men are too extensive, and as one man said, when I remarked that many cabbages were running to seed, "It would be a good thing if more than half of them would do so, for Norfolk county always kills Norfolk county, with too much stuff all at one time." They need not only to rotate their lands and improve them, but to get at more intensive work under glass.

W. F. MASSEY.

Live Stock and Dairy.

DAIRYING IN VIRGINIA.

For years we have been trying to induce our farmers to become live stock keepers and dairymen, satisfied from long personal experience and from the experience of the results in other States that only by that means could our lands be permanently and cheaply improved whilst at the same time the financial condition of the farmers themselves could be put upon a cash basis. The Legislature urged by some of our best and most influential farmers followed up our efforts last session by the creation of a Dairy Commission with a Dairy Commissioner and Deputy at the head and with a substantial appropriation. One of the chief duties of this Commission was defined to be the promotion of the Dairy industry of the State. As Dairy Commissioner, the Governor appointed Professor W. D. Saunders, a technically educated member of the Virginia Experiment Station staff, and who has had years of practical experience in the production of milk, butter and cheese, and than whom no more competent officer could be found anywhere. From this action we anticipated a most lively awakening in the movement and in this we have not been disappointed. Scores of farmers have given the subject attention and many of them have incurred large expense in buying dairy herds and fitting up their barns and buildings for the conduct of the business. They now find themselves confronted with a serious difficulty in carrying on the business. After the State Dairy Commissioner has examined their premises and certified them to be properly constructed and the work conducted in such a manner as to be satisfactory to the Commission, the inspectors of the Richmond City Board of Health visits the premises and in many cases has prohibited the owners from sending their products into the city for sale, thus rendering absolutely nugatory the authority of the State Dairy Commissioner, and making it impossible for the owners to make profit on their outlay. There is something radically wrong in this procedure. It is a poor way to encourage dairying in the State for one authority—and that a State one—to encourage the starting of the business and to certify as to the fitness of the plant and then for another authority—and that merely a city authority—to step in and override the State authority and practically to confiscate the outlay made in establishing the business, for to prohibit the sale of the products in the city is practically to confiscate the outlay. The anomaly of the procedure is the greater because the action of an expert, technically educated dairyman like the State Commissioner is overruled by the authority of men who, to say the least about them, are not technically educated men. We grant that the City Board of Health has the right under the law to prescribe what articles of food shall be sold within the city, but we contend that their authority does not extend outside the city limits. If, when the article of food offered for sale is brought into the city, it is on examination found not to be wholesome or pure, then they may forbid its sale; but it seems to us a great and tyrannical exercise of authority, and one which we doubt whether the courts of law will sustain, for a city authority to override a

State authority, and especially outside the limits of the city. The exercise of this authority seems to us to contravene the Constitution in that it deprives a citizen of his property without due process of law. To seize a man's milk and pour it down the drain before it leaves the farm, as has been done, seems perilously like depriving a man of his property without process of law. However this may be, it is imperative that some means be taken to define the limits of State and city authority, and that at once, if the dairy industry is to progress in the State, as it ought to do. Will the State authorities please inform the farmers whether the State officer charged with this work of dairy inspection and promotion is subordinate to the city authorities, and, if so, what purpose is served by the State officer, and why the citizens are taxed to maintain the Commissioner and his office?

HOLSTEINS IN VIRGINIA.

Editor Southern Planter:

Enclosed please find copy for my advertisement for The Planter. This will serve as a revelation of my whereabouts, and an indication that my separation from the ranks of Southern dairymen is simply a matter of geography, for my interest in all those engaged in dairying in the South is unflinching, and my enthusiastic belief in their great possibilities for success but grows firmer. Of course, it is in Virginia that my interest principally lies, for during my stay there I became acquainted with her people and with the conditions that surround her dairy farmers.

I have been able in times past, because of a little longer experience with dairy cattle, especially Holsteins, to assist by advice those just beginning in the business. To such beginners and others interested in the black and white cows, I would say, I am still at your service. My advertisement gives you my address. Write me if I can aid you in any way.

You will be interested in learning of the foundation of another Holstein herd in Virginia of which, in the years to come, she will be justly proud. It is owned by Mr. D. S. Jones, President of the Common Council, Newport News, Virginia. A year ago Mr. Jones visited Hygeia Herd and selected a very fine young bull from a 19-pound three-year-old daughter of the famous Jessie Veeman A. He was by Pontiac Calypso's Son, whose dam and sire's dam have official records averaging 28.15 pounds of butter in seven days. This young bull has developed beautifully, and is bound to get great producing stock. Realizing the great advantages and pleasure to be derived from a pure-bred herd, Mr. Jones wrote me a few weeks ago, asking that I secure for him six young cows suitable for the foundation for a fine and large producing herd, leaving the selection entirely with me. "For," he wrote, "you know better what I need than I do." I selected for him six highly bred cows from two to four years old, from large producing families and with extra fine individuality. Included in this lot was Parthena Pontiac, a heifer, whose dam, Pontiac Parthena, has just sold at public sale for \$430.00. She has a record of 22.61 pounds of butter in seven days, with an average test of

4.29 per cent. fat. At the time of her sale, \$500.00 was offered for a heifer calf from her by a son of Hengerveld DeKol. Parthenea Pontiac was sired by a son of Hengerveld DeKol who has nearly one hundred daughters in the Advanced Registry, two with records over 30.

Another fine one was Jane Pietertje DeKol, who traces directly to Lillth Pauline DeKol, A. R. O., 28.24 pounds; DeKol 2d, 26.58 pounds, and Aaggie Topsy DeKol, 29.57 pounds; and to such sires as Milla's Pietertje Netherland, Pietertje Alban DeKol, and Korndyke Queen's Sir DeKol. In DeKol Netherland Canary, a representative of the Canary Mercedes and Netherland families, Mr. Jones has a prize. She is in calf to Pontiac Chiron, one of the best sons of Hengerveld DeKol. Lakeside Molly DeKol is also in calf to Pontiac Chiron. Her breeding along the Pauline Paul and DeKol 2d lines will make the calf particularly valuable. Plum Concordia, a daughter of Junior Concordia DeKol, freshened while in transit with a fine heifer calf which is worth nearly the price of the cow. Boon's Beauty 2d's Rue, a granddaughter of Johanna Rue 3d's Lad and Manor DeKol, is the last on the list, but one of the best in the lot. In these six animals are represented the blood strains of the very best families of the breed, and are all that could be desired for the foundation of a grand herd.

On his farm at Morrison's Station, a few miles from Newport News, Mr. Jones is carrying on a practical system of farming, following closely the plan of deep ploughing, growing of legumes, and feeding all crops, except potatoes, to dairy cows. In this way he markets all of the products of the farm in a finished state, in the form of milk and cream, thus realizing a greater amount from them and at the same time returning all plant food to the land, which is growing richer and better every year. I would advise all those contemplating going into the Holstein dairy business to consult with Mr. Jones. You will find in him a thoroughly practical man, and one of the finest gentlemen Virginia affords. I shall always look back with a great deal of pleasure to the few days I spent with Mr. Jones in his home. We wish him all success, for upon such men depends the agricultural progress of the Old Dominion.

In the same car we shipped a young bull to Mr. Robert E. Kurtz, of Ashland, Virginia. Mr. Kurtz is a graduate of the V. P. I. and is starting into the Holstein business in a small way, but with the ideas that lead to success. I selected for him from our own herd a grandson of DeKol 2d's Butter Boy 3d. This sire has more A. R. O. daughters than any other bull of his age, and his heifers, now freshening are making phenomenal records. Several two year olds have made over twenty pounds, and one over 24 pounds. I am in receipt of a letter from Mr. Kurtz, in which he says in part: "Bull arrived in good shape, and to say that I am pleased would be expressing myself mildly." It is a pleasure for us to receive such letters from our customers, for in their satisfaction we feel that we have attained the desired end.

I was pleased to note all through Virginia the indications of dairy and agricultural progress. Several creameries are being successfully operated in the State and many others in process of building; new and better barns are being built; great progress is being made toward the eradication of the cattle tick. The three horse plow and

subsoiler is rapidly supplanting the single plow. The ten gallon cow and large beef animals are driving the scrub stock "to the tall timber." This is truly an age of advancement. The time is past when "the kind that grandfather had is good enough for me." Start right; do better; have the best, is the motto for the dairyman and farmer that will work to the advantage of the individual and the State.

I will not take more of your valuable space, Mr. Editor. I only wish to say that I believe this wonderful wave of agricultural progress that is sweeping over the South is due in a large measure to the untiring efforts of The Planter in the interests of the farmer.

Richland, N. Y.

J. B. LOOMIS.

Mr. Loomis is the gentleman who had charge of the celebrated Holstein Herd of Dr. Robinson, at Hygeia Farm, Coveseville, Virginia, and later of the same herd after it passed into the hands of Dr. W. F. Carter, at Crozet, Virginia. He is a great authority on Holstein breeding and management.—Ed.

HOG FEEDING PROBLEMS.

Editor Southern Planter:

It is my intention to go into the production of pork on a more or less extensive scale, and I want to do the business on an intensive plan. Raising pork for the live hog market was the main vocation of farmers in my native State (Iowa), and the methods of the West are not always practical on Eastern farms. The difference in the soils, length of season, price of corn, and the scarcity in this section of good summer pasturage for pigs and their mothers make the problem one of altogether different complexion from the one that I am accustomed to.

My chief concern is the problem of putting prime porkers on the market at the least possible cost, and this naturally means with the least possible feeding of high-priced grain, chiefly corn. I have a field of about sixty acres of second bottom (I presume some might call it upland), where the soil is of rather a stiff clay of fairly good fertility as it stands. Previous to this year it has not been in cultivation for a number of years and was heavily sodded with broomsedge. It was plowed this winter about nine inches in depth and will go in corn and get a very thorough cultivation. This field runs lengthwise alongside a woods pasture with water therein. It is my purpose to divide the field into several small ones, fencing each with hog-tight fencing, and each field will have an egress into the woods pasture, the object being to permit the pigs to have the run of the pasture at all times and the use of one of the fields when the crop therein is ready for them. Now, the immediate problem before me is the selection of a crop rotation for these fields, and the number of fields will, of course, depend on the crop rotation adopted.

I want crops that the hogs will themselves harvest, as labor is one of our problems also. I also want to supply the greatest amount of good nutritious hog food for the longest period of time possible, it being an open secret amongst the hog raisers of the West that a pig must be kept growing rapidly, for every day that it fails to make a gain it is losing what it gained in two days. These fields will be devoted exclusively to growing feed for

the hogs, as the regular crop rotation of corn, wheat, clover and peas will be carried on on the bottom or river fields.

I have been considering the following as a feasible plan: First, to divide the sixty-acre field into three twenty-acre lots. Lot No. 1 to be sown to rape and Canada field peas in spring of 1910. Lot No. 2 to be sown to cowpeas in June. Lot No. 3 to be planted to some early maturing corn to be harvested by the hogs. Lot No. 1 will be sown to crimson clover and rye in fall of 1910. Lot No. 2 to be planted to corn in 1911, and Lot No. 3 to be sown to cowpeas in 1911; corn will follow cowpeas; clover and rye will follow rape and Canada field peas, and rape and Canada field peas will follow corn in 1912.

This makes a three-year rotation of corn, clover, cowpeas and rape, which appears to promise an abundance of feed almost the entire year around, especially if rye is sown with the crimson clover. It may be advantageous to make more lots and grow more crops, and I am considering several plans. I am just making a beginning in the pork producing business in this State, though I have farmed here for several years. The high price of corn has set me to wondering what might be the best policy to pursue, and if the editor or any of the contributors have found a solution to the problem that confronts me I should be glad indeed to know the results of their experiences. I have at present eighty-five head of porkers on a seven-acre field of crimson clover, and I have a very impressive lesson that convinces me that crimson clover and pigs are affinities.

Referring to Professor Massey's criticism of plowing under cowpeas and seeding the plowed field to wheat, I will say that the criticism is well taken, as a rule, but in this case circumstances made an exception to the rule. In the first place, the cowpeas on a part of the field were cut for hay, but we gained little thereby for we haven't stock to eat the hay, and few persons in this locality have enough confidence in cowpea hay to buy it at any price, so the hay is of little value to us. Again, at the time we began preparing the field for wheat, the surface was so very dry that we could do little with the disc cultivator, but we could manage a plow very well. I am confident that our wheat will not be so good a crop as it might have been had the season been favorable to the practice of the method prescribed by Professor Massey. I also believe that we would have made more wheat if we could have spent some time in working the seed bed down to the firmness that the wheat needs, but, unfortunately, time did not permit it. So, though we do not uphold the plan of plowing under cowpea vines, except in exceptional cases, we do believe that there are times when it is the best that one can do, and, when it needs to be done, we want to do it in the best manner possible; hence, our inquiry as to plows that would do satisfactory work in such emergencies. And when one has not the stock to feed and those who buy hay will buy crabgrass and broomsedge mixed hay in preference to cowpea hay, we know of no better thing to do with a growth of cowpea vines than to turn them under, though we would prefer to plant to corn rather than seed to wheat. Some may question if the cowpea is a profitable crop for us to grow under such circumstances, and we sometimes question it ourselves, but we are striving for bigger yields

of wheat and corn and very much desire the help that a crop of peas gives. After we get more stock; when machines will thresh the seed from pea vines satisfactorily; when the feeding value of pea hay becomes better known, then this problem can be solved in several ways. Even then we shall hesitate to sell the hay, having been taught and firmly believing that it is always better, in the long run, to feed the roughness on the farm, and carefully save the manure, which should be applied to high-priced market crops. In this way any loss caused by the difference in the price of the feed before and after feeding is more than returned.

ARTHUR V. TAYLOR.

Chesterfield Co., Va.

If our correspondent will refer to our issues of September, October, November and December of last year, he will find this subject of hog feeding crops fully discussed.

The following queries and replies on this subject, which we took from one of our exchanges sometime ago are certainly valuable suggestions which we can endorse.—Ed.

Pasture for Hogs.

"A bulletin of the United States Department advises, for Southeast Virginia a field of five acres divided into five lots. No. 1 to be planted to sorghum and followed by turf oats and vetch; No. 2 planted in sweet potatoes and followed by turf oats and vetch; No. 3 planted in peanuts; No. 4 planted in sweet potatoes for late crop, and No. 5 in artichokes. The following year No. 1, which was in oats and vetch in winter, is planted in sweet potatoes, to be followed by oats and vetch in the fall. No. 2 is planted in artichokes; No. 3 in sorghum or Kaffir corn, to be followed by oats and vetch in October. No. 4 in peanuts, and No. 5 in sweet potatoes, both to be followed by oats and vetch. I would ask, first, Where can turf oats be had? Second, can vetch follow sorghum here in the fall? Third, when should the Early Amber sorghum be planted here? Fourth, can Early Amber and Black Eye or any other kind of peas be broadcasted together, and in what proportion, and will they mature at same time? Fifth, how many crops of sorghum can be grown here for hogs in one season? Sixth, is white clover and orchard grass a good combination for hogs, to be sown in spring? If not, what is?"

One, The Virginia Grey Winter Turf oats can be had from any dealer in Norfolk. Second, vetch sown in the fall after sorghum will be of no use until late spring. Third, about the same time corn is planted. Fourth, they are frequently sown together for hay, but a later sort, like the Black pea, is better for this purpose, and we do not think the sorghum adds much to the feed. Fifth, one only. Sixth, as a permanent pasture lot the mixture will do fairly well, but we would, on your black moist soil, add some seed of red top grass. Then in the hog lots we would leave out the sorghum and the artichokes. The artichokes will become a pestiferous weed, and there are better foods than the sorghum for hogs. You can sow for temporary use one lot as early in spring as the land can be worked; with six pounds per acre of Dwarf Essex rape, to be eaten off and followed by an early maturing cowpea like the Whippoorwill, and this to be followed by crimson clover sown among the peas after they are eaten down. At the same time sow other lots in Black peas, to be eaten off in succession and to be followed by rape sown in September for winter feed. Another lot

can be planted in peanuts and the other one also to be eaten off in succession and sown to the grass and clover mixture, using ten pounds each of the orchard grass and red top and five pounds of white clover. Then the following seasons keep up a succession of peas and crimson clover and keep the two in grass as a permanent pasture to be used alternately. On your black soil you will need to use acid phosphate and potash liberally, and as the vegetable matter accumulates you will have to apply a dressing of shell lime once in five years, at rate of twenty-five bushels per acre. After getting the rotation well started you will find that cowpeas and crimson clover will give you all the feed needed, to be followed by corn to harden the fat on the hogs in the fall. Always sow the crimson clover in September and do not be discouraged if the sowing partly fails at first, but give it the potash and phosphate and the soil will get inoculated and you will have fine crops to begin on in the spring.

IMPROVING THE LIVE STOCK.

Editor Southern Planter:

The signs of the times seem to point to a grand awakening in the interest and improvement of live stock throughout the whole country, and yet, many of our most practical farmers seem to be content with the scrub. They do not realize it is incumbent upon them to foster the expansion of the quality and value of so great an industry. They are content with mongrelized blood in our domestic animals because they were handed down to us by our grandfathers. Can we afford to chance the future with such poor stock when high labor and high-priced feed are here to stay?

Every one cannot go to breeding pure-bred stock because the supply is inadequate to meet such a demand, but we can improve our herds by the use of a pure-bred sire. Some think a good individual with mongrelized blood can reproduce himself. We may select a sire of exceptional conformation, but which does not possess generations of uncontaminated blood to impress upon his progeny and find that his excellency ends with himself. He has so little pure blood to transmit to his product that he hasn't power to reproduce himself. A grade bred to a grade for two generations will produce an animal that is not worth his keep. It is here where the force of atavism and the law of heredity are manifest and keenly felt.

On the other hand, the pure-bred with generations of royal blood of strong individuality with conformation characteristic of the breed is bound to impress his good points on his progeny. "Like produces like when blood is absolutely the same." We are impressed very forcibly with the distinct types in the lower forms of life that are perfect duplicates of the original and if we did not breed such diversified types we would soon produce animals of such great merit as to challenge past endeavors. We feel we are not deluded when we claim this can be and will be accomplished.

We cannot appreciate a sire too highly of unlimited vigor and prepotency of power to pass his good points to his offspring. We often see sons and daughters far superior to sire or dam with a strong pure line of ancestry back of them, but it is rare we see the get of sire represented by both sexes of equal merit. Either males or females are inferior. Let us not forget that both individuality and breeding are absolutely essential if we wish

animals to reproduce themselves. Let us get the best our means will afford. The best are none too good.

It is a delight to watch daily the growth of good bred stock, feeling satisfied the produce of our farms is going into living machines that are fast responding to good treatment and developing into the beautiful for which demand is great. It diverts our mind from some duty that ordinarily would be irksome or appalling by adding new life and determination to our being. The monotony of farm life that was distasteful dawns upon us as an unbounded pleasure.

We put too little stress on character in mating our domestic animals. Breeders of the British Isles put great import on this vital point when they study type and symmetrical form, ever mindful of retaining character.

The most successful men of the turf consider first nervous energy with an iron heart which impels a horse to forge to the front as long as endurance lasts. They go to the extent of being assured of a special fancy of the sire for the dam in order to encourage him to pass his greatness to his offspring.

Speed the day when the scrub will be entirely eliminated and we may appreciate the greatness and excellency of a pure fountain flowing through the product of the horse, cow, sheep and hog that has been unlocked by generations of pure blood whose image will be stamped upon his progeny, which will far transcend the past in breeding and developing the ideal domestic animal, and not until that day shall dawn will the barren wastes be reclaimed in all their fertility and beauty.

A Word for the Dual-Purpose Cow.

We would be perfectly willing for these noble animals to rest on their laurels if let alone by men of a narrow vision, who claim to know so much about something they have never handled, or, if they have, it has only been a cheap cull. Some say there is no such thing as a dual-purpose horse, consequently there is no such thing as a dual-purpose cow. I wonder if these men are sufficiently versed to deny the existence of a combination horse, the cross of the thoroughbred and Clyde that is to-day selling for from \$500 to \$6,000? They are good for harness, good for saddle, great as hunters, and ready for the plow.

We have a dual-purpose hog in the Poland China which has been brought about by mixing distinct breeds and types. We can say the same of sheep and chickens.

We are told that the ancient Egyptians thought it a disgrace to depart from ancestral activities and achievements. If a given family was identified with a certain pursuit, let it be agriculture, priestcraft, or war, it was a scandal for the son to abandon the vocation of the father, which resulted in the production of a one-purpose man, wherein lies the failure of the fertile valley of the Nile to make progress. The most valuable men on our farms are the ones who can perform well the greatest number of duties and not the one-duty man.

We see dual-purpose products in every form of nature. We see it in birds of song and plumage; we see it in the mighty trees of the forest; we can with one hand pluck the ripe orange, and with the other gather from the same tree a beautiful and fragrant wreath. This is a great country of diversified interests, and what may meet the needs of one locality or the requirements of one man will not suffice for others. Some of us are so narrow as to

think certain things do not exist that have not been committed to our special guardianship and cannot tolerate facts as presented by others.

We are not advocating the dual-purpose cow where the demand is all milk and no beef, or all beef and no milk. How many of our farmers can afford to feed cows only for the production of beeves and which cannot nurse them. How many can afford to retain a breed where calves have to be killed before they are three days old? We do not wish to slave our lives away at the pail when a calf worth \$75.00 to \$100.00 can assist us. Some may claim all of us cannot realize such prices. We will answer, the demand far exceeds the supply, and again, a yearling steer from a dual-purpose cow readily brings \$60.00 or more.

Go with me, please, back only four decades, when the Jamestown Muley or Red Poll was the pride of the household, and the milking Shorthorn in her glory. We well remember the noble cows giving a gallon of milk from each quarter with grand calves by their sides. The Jersey grew into popularity. She seemed to appeal to our mothers. The noble old muley and the grand old roan were sent to the cities at good prices to return no more. The product of the Jersey was scattered broadcast throughout Virginia and taken up by the South. The present generation is paying dearly for the fallacy. We see the State that was first celebrated for its great horses that imported the first noted cattle striving to reclaim its lost prestige.

We defy him who doubts the existence of a dual-purpose cow to place a wager with The Southern Planter from one to ten thousand dollars. Each one that goes into the test is to represent \$1,000. Should there be five cows the wager is to be \$5,000. The cows are to be selected from the Red Polls or milking Shorthorns. These cows are to give 8,000 pounds of milk in twelve months that will test four per cent. The cows are to weigh over 1,200 pounds when fat and be judged from a beef standpoint by butchers of note. If any man thinks he can make easy money, he will soon find ready takers.

Delaplane, Va.

H. M. LUTTRELL.

DAIRY PROGRESS IN VIRGINIA.

Editor Southern Planter:

I note with interest the rapid development of dairying in the State. This speaks well for the enterprise of Virginia farmers. Probably more than one-half of the dairy products which are placed on the markets in our cities are shipped from other States. This should not be, for dairy products are essentially perishable products, and the people of this State have a very great advantage in competition with other States in producing these products on account of the fact that competing States have to pay large refrigeration and express charges and at the best cannot put their products on our markets in as good conditions as we can ourselves. There should be, and I believe will come, a time in the near future when Virginia will produce at least enough dairy products to satisfy her own markets, and this from the standpoint of commercial advantage to her farmers rather than from State pride.

I not also with a great deal of satisfaction the organization of creameries in many places in the State. The organization of creameries must go hand in hand with dairy development, but such organization should not precede milk production in a given neighborhood. The

creamery is a method of co-operatively handling and marketing dairy products. It is very evident that there is no call for a creamery in a neighborhood where there is no milk to be manufactured into butter or cheese and put on the market. The profits in the creamery business depend directly upon the amount of milk handled, and the creamery which handles a very small amount of milk is sure to be correspondingly unprofitable. While the creamery acts as a spur to milk production to a very great extent, it cannot succeed unless there is, to begin with, a certain amount of milk in the neighborhood to be handled, any more than a mill would succeed where there was no grain to be ground.

A word of caution in this connection to the farmers of the State at this time would perhaps be in place. The history of creamery development in the United States has been that whenever a community or State is developing the dairy interests, promoters, whose primary interests are to sell dairy machinery, have followed such creamery development. While these promoters, or agents for dairy machinery, have been of marked value to the dairy interests in many cases, in some places they have been a detriment to real progress, for creameries have been organized under conditions which made it almost impossible for success. The greatest mistake is the organization of a creamery in a neighborhood where there is no milk to be handled. The amount of milk necessary for success depends upon the profits in handling. It is doubtful if a creamery will be profitable unless there are at least two hundred cows, the milk from which will be delivered to the creamery.

About a year ago Professor W. D. Saunders was appointed Dairy and Food Commissioner. Professor Saunders has probably been more intimately connected with the creamery business than any other man in the State. The law creating his office prescribes that it shall be his duty to foster dairy enterprises, and he is especially qualified to give advice in the matter of creamery organization. It would be well for any neighborhood which contemplates the organization of a creamery to secure his co-operation before proceeding. When a creamery is organized in a locality and fails, it invariably sets back dairy development rather than promotes it. It is well, therefore, for all concerned that a careful study of conditions be made before proceeding.

W. K. BRAINERD,

Expt. Station, Blacksburg, Va.

Dairyman.

We are glad to have this communication in support of the position we took in the article in our last issue on this subject of the creamery promoters. Since we wrote that article, we have been informed by an excellent authority that the creamery which these promoters have saddled on to the farmers around Farmville has cost them from \$1,500 to \$2,000 more than it could have been erected and equipped for, all of which might have been avoided by consulting with the Dairy Commissioner of the State. Another awkward feature of the transactions with these promoters is that they so prepare the obligation for payment that each individual makes himself liable for the whole of the obligation. In this respect they proceed like the horse dealers who sell stud horses to a stock company. We have heard of several cases where one individual who signed the obligation has had to pay the whole

amount for the purchase of the horse. We would urge caution in dealing with any of these promoters, either of creameries or horse companies. We have letters from several parties thanking us for the warning published in our last issue as to these people.—Ed.

TUBERCULOSIS IN CATTLE.

Editor Southern Planter:

In the opinion of the writer, the time is unquestionably ripe for the cattle owners of the State to come forward and help the officials to fight the disease among our cattle known as tuberculosis. In this matter, however, the writer is speaking of the disease only with regard to its bearing on the health of live stock, and the actual cost which said disease is annually heaping upon our stock raisers, and especially upon the dairymen. So far as the health of man is concerned, while he feels the deepest interest in the welfare and good health of his fellowmen, yet the writer leaves that to the Board of Health and medical doctors, as his entire time is taken up in trying to protect the health of the live stock alone.

It is a pleasure to note the interest the Board of Supervisors of Rockingham have manifested in this connection, and the activity they have shown in taking hold of the subject. The said county has taken the lead in this respect by being the first to appropriate money to be used in testing cattle, the preliminary step in this all-important fight. Virginia can accomplish but little, if anything, until the State appropriates money to be used to pay at least a portion of the assessed value of the condemned animals, in order that the cattle owners may have some help in bearing the cost of eradicating this disease, or, at least, in checking its spread through the State.

Since it is useless to expect to successfully fight the said disease without money, the first step should be to have the cattlemen of this State get their representatives to look thoroughly into the matter, and, if possible, secure a special appropriation at the meeting of the General Assembly next winter, for the specific purpose of fighting tuberculosis in cattle.

As the matter now stands, the tuberculin test is the best method known to the profession of veterinary medicine by which to detect the disease in cattle when said disease is not in an advanced stage. Yet, the said test condemns many cattle which are only slightly affected, and which the cattle owner hates to give up for nothing—hence, the State must step in and help the owner to bear this loss if we expect to accomplish results by our present method of fighting the disease; that is, by accepting the results of the tuberculin test.

With tuberculosis, as with most other contagious diseases, getting rid of the disease is but the first step—we must then keep our herds free from the same. Sanitation, the constant use of disinfectants, especially proper sanitation on the farm; care as to the water supply, fresh air and light in the barns, etc., all can be practiced by the cattleman at his own expense with profit to himself, while the State has, as can be seen by the following order, taken active steps by which to stop any one from sending or bringing animals affected with tuberculosis into Virginia in future.

The following order was recently made by the State Live Stock Sanitary Board for the protection of cattle

breeders and dairymen of the State of Virginia against diseased cattle from other sections, and the Board will expect and appreciate the support of every one in the State interested in the development of stock, in helping to enforce the said order:

Office of the State Veterinarian,
Burkeville, Va., March 19, 1909.

An order to protect the dairy and breeding cattle of Virginia from the disease known as tuberculosis, which may exist among the live stock of other States or sections.

The State Live Stock Sanitary Board of Virginia, under authority conferred by Section 1599-a, paragraph 4 of an Act of the General Assembly, approved March 12, 1908, authorizing the said Board to quarantine against all contagious and infectious diseases affecting the domestic animals of other States, doth hereby issue the following order:

"All cattle coming into the State of Virginia for dairy or breeding purposes, male or female, must be accompanied by a written certificate showing that said cattle have passed the tuberculin test not longer than four months before entering the State. Said test must have been conducted by a qualified veterinarian approved by the Live Stock Quarantine authorities, or State Veterinarian, of the State from which said cattle originate. This certificate must be presented to and approved by the State Veterinarian of Virginia before said cattle shall be allowed to enter the State.

"Any railroad company, navigation company, or other corporation or common carrier, who shall knowingly or wilfully violate, disregard or evade any of the rules or directions of the Board of Veterinarian, establishing or governing quarantine, or who shall evade, or attempt to evade, any quarantine proclamation of the Governor of this State declaring quarantine limits, upon conviction thereof, shall be fined not less than five hundred dollars nor more than five thousand dollars for each and every offense, and shall be liable for all damages caused to any live stock by its failure to comply with the requirements of this act.

(For above penalty see page 307 of the Code of Virginia, paragraph 6, of section 1599-a, approved March 12, 1909.)

By order of the State Live Stock Sanitary Board.

J. G. FERNEYHOUGH,

Burkeville, Va.

State Veterinarian.

The sale of the champion Shire stallion Tatton Dray King at the record price of \$18,500 naturally is the subject of animated interest on both sides the water. The English have a way of backing their judgment to the limit. They are game at any enterprise. The price looks like a large one, but as has beforetimes been noted it is an entirely safe gamble, aside from the risk of death, as the stallion possesses the earning ability in fees around \$5,000 a season.

It is comparatively easy to commit a good many crimes in the name of public health; and in this sensational age, when campaigns allegedly in behalf of public health are waged on hypotheses, it is necessary for stock farmers to be on their guard.

THE MOORE'S BROOK BERKSHIRE HERD.

Recently we had the pleasure of inspecting the Moore's Brook Berkshire Herd. We were delighted to find such a goodly number of finely bred hogs in such excellent shape. Two reasons may be assigned for these conditions: First, of course, is good blood and individuals, and the second is plenty of alfalfa and green crops with running water abundantly distributed in all the breeding pens and runs by a hydraulic ram.

The Moore's Brook Herd was established only a few years ago and the degree of excellence to which it has attained is due to the fact that its foundation is good stock which has been carefully bred and mated and new blood of fashionable and performing strains have been introduced until it now ranks second to no herd in the State. At the Lynchburg and Richmond Fairs in 1907 and 1908 it won thirty-three ribbons and silver cup in the liveliest sort of competition.

While already a fine producing and prize winning herd, it has been recently augmented by the purchase of some excellent animals from Outen's well-known Delaware herd. In this purchase were included Delaware Premier, a boar of excellent type; Lee's Artful Belle 51st, Premier Longfellow's Belle, Lady Combination 5th, and a Daughter of Masterpiece. Berkshire breeders will at once recognize in these names the bluest blood of the breed. While we did not question him closely on the subject, Dr. D. M. Trice, Proprietor, admitted to having parted with a pretty good sized check for the lot.

The spring litters are about the prettiest and huskiest lot of youngsters we have seen in a long while. Dr. Trice is so enthusiastic over these pigs that he intends to show four from Mason's Lady and four from Lee's Artful Belle 51st at the Fairs this fall in six classes each; viz., under year boar and sow; best get of boar; produce of sow; breeder's young herd; under six months, and American Berkshire Association Cup.

Our numerous Berkshire friends had better take this tip and govern themselves accordingly.

Herd Boars.

Dr. Trice thinks he is particularly strong in Herd Boars as evidenced by the following:

Delaware Premier, by Lord Premier, out of Charmer's Lady 3d, she out of Charmer 66th.

Gem's Kennett, by Kennett, out of Gem's Pet 3d. This boar headed the young herd that won the Cup at the State Fair at Richmond, 1908.

Baron Premier T., sired by Baron Premier 3d, out of Hallmark's Emily. This boar is a grandson of Premier Longfellow.

Masonic Rival, by Rival Premier, out of Masonic Belle. This hog is a grandson of Lord Premier's Rival.

Sows.

Lee's Artful Belle 51st, sire, Lord Premier; dam, Lee's Artful Belle 2d. The dam of this sow was a litter mate to the dam of Lord Premier's Rival and Lord Premier 2d, and the sow that sold in Mr. Corsa's recent sale for \$675.00.

Premier Longfellow's Belle 3d, sire, Premier Longfellow; dam, Lee's Artful Belle 51st.

Lady Combination 12, sire, Young Baron Duke; dam, Lady Combination 5th. This sow sold at Mr. Barker's 1907 sale for \$300.00.

Baroness Emily, sire, Baron Premier 3d; dam, Hallmark's Emily.

Rival's Masonic and Rival's Masonic 2d, sire, Rival's Premier; dam, Masonic Belle.

The three last named sows, with Gem's Kennett, constituted the young herd that won the Silver Cup offered by the American Berkshire Association at Virginia State Fair in 1908.

Master's Granddaughter, sire, Lord Premier 3d; dam, Master's Eminent.

Masterpiece Prodigy, sire, Predominant; dam, Master's Eminent.

Masterpiece Beauty A. 2d, sire, Masterpiece, and sold for \$405.00 in Council's August, 1907, sale.

Four Granddaughters of Masterpiece, one by Lord Premier 3d, two by Predominant, and one by son of Masterpiece, out of a sow carrying all imported blood.



Brood Sows—Moore's Brook Berkshires. Beginning at top: Master's Granddaughter, Lee's Artful Belle 51st, Masterpiece's Prodigy, Lady Combination 12th, Masonic Lady and nine Pigs.

Most of these sows have pigs by the herd boars and Baron Duke's 50th Masterpiece. These pigs will undoubtedly reflect credit on their breeding and their breeder also.

SHEPHERD.



Herd Boars—Moore's Brook Berkshires. Beginning at Left: Masonic Rival, Baron Premier T., Delaware Premier, Gem's Kennett.

THE PROGRESS OF DAIRY EDUCATION IN THE SOUTH.

Editor Southern Planter:

Dairy education is making steady progress in all sections of the South, though at the present time there is no State which has developed the dairy industries on a basis comparable with Wisconsin, and many of the commonwealths of the Middle West. Conditions are so essentially different between the South and the Northwest that it is not difficult for one who has studied the situation to realize why dairy education has not made greater progress in the past. King Cotton is responsible in a large measure for less interest being taken in dairying. Cotton is the money crop of the Southern farmer. It means everything to him; more than the proverbial hog, which has been aptly termed the mortgage lifter on our Western farms. It is the one crop on which all the energy and all the interest of the South centers. In Wisconsin, on the other hand, the State's prosperity is based on dairying, and natural conditions have had much to do with its development, as the environment is not adapted for growing cotton, and the farmers had of necessity to turn their attention to some other industry as a means of livelihood.

From this statement it must not be gathered that cotton growing and dairying are antagonistic, but natural environment has much to do with determining the relative position of an enterprise in a given community. Nature has varied our climate and soils so as to adapt one section for one particular crop and another for some other form of agricultural activity.

The extensive cultivation of cotton has occupied the public mind so completely that it has excluded the development of other enterprises which might have been associated with it to the immense benefit of the Southern farmer. It is not so long ago in fact when the by-products of the cotton plant were allowed to go to waste. Any middle aged man will tell you that he recollects when the seed was regarded as a nuisance. Before the advent of artificial ice it was exceedingly difficult to handle milk and other perishable dairy products satisfactorily or economically. There were thus natural conditions to overcome on the part of the farmer, which, from his point of view, might easily have seemed unsurmountable. The marvelous changes which science has made in all fields of industry, however, have shed new light on the dairyman's problems, and have shown the

Southern farmer how he may now engage in dairy enterprises with profit and satisfaction, for ice may now be made in his own dairy and sold to his friends and neighbors profitably, and it will not cost him more probably than it does in the North to harvest the natural ice and store it.

Investigations in animal nutrition have shown that cotton seed meal stands unrivaled as a concentrate for balancing the ration for the dairy cow. The silo has made it possible for the Southern farmer to have an admirable substitute for grass at those seasons of the year when blue grass is not available in the Piedmont section, or where Bermuda can be depended on throughout the vast extent of the coastal plains region. These facts have only been recently appreciated by any considerable per cent. of the people, but they are rapidly awakening to the possibilities which lie in front of them, when all the aids which science brings to the dairyman are adopted and utilized in conjunction with a climate and soil which produces as great a variety of useful crops for the economic nutrition of the dairy cow as can be grown anywhere in the world.

One might be surprised on examining the animal statistics of the Southern States to find what a large per cent. of dairy cows there are. Naturally, he might expect to find great creameries and cheese factories scattered here and there throughout the country. On examination he would find this to be an error, and would likely conclude that dairying had made but little progress. In this he would be right from one point of view, as the Southern farmer up to this time has been chiefly a "one cow" farmer; that is, he has kept a cow to supply milk and butter for his family. Not having a supply of ice, he was forced to churn every day, the product being consumed at home. As every other farmer and resident in the smaller towns and cities kept a cow, there was comparatively little demand for dairy products until within the last few years. Now, however, an industrial wave of phenomenal character has spread over the South and towns and cities are springing up at an amazing rate, and industries of every character are being established in the smaller centers of population, while there is a demand for dairy products at profitable prices which is not being properly catered to at the present time.

This is not difficult to understand, however, as all new enterprises have made slow progress in the beginning,

and it has taken time to demonstrate to the tiller of the soil that there were other forms of farming besides cotton growing which would prove remunerative. As a matter of fact, the most enthusiastic dairyman must realize that where the farmer can buy land cheaply and raise a bale of cotton per acre with the use of from three hundred to four hundred pounds of commercial fertilizer that it is difficult to find a more profitable type of farming when he can secure ten cents or more per pound for the staple. Five hundred pounds of lint cotton at ten cents a pound brings \$50.00; and the seed is worth about \$10.00 more. There is plenty of land that can be bought at from \$25.00 to \$40.00 per acre that will do this under good management and cultivation for years in succession, and even if it costs six cents per pound to make the cotton, the profit per acre is still a handsome one on a crop that is non-perishable and can be held indefinitely for a better market if it is desirable to do so.

For many years it was thought that the South could not make dairy products economically. The Experiment Stations have demonstrated the fallacy of this proposition and milk and butter can be made at reasonable prices as compared with the cost in other sections. Home-grown crops, where crop rotation is practiced and the crops selected for cultivation on a common sense basis, will furnish rations eminently well suited for the nourishment of the cow at a moderate cost and without necessitating the purchase of any considerable quantity of concentrates other than cotton seed meal, which is the cheapest high-class protein food on the market to-day. The physical conditions can thus be changed to meet the requirements of every dairyman by the exercise of intelligence and skill on the part of the farmer, and those other natural deficiencies which high temperature seem to fasten on the South can be overcome through the aids of science referred to. The way is clear, therefore, for the establishment of dairy farming, either on the co-operative principle so admirably and successfully followed in the Northwest, or for the development of the home dairy in an ever-increasing ratio.

From the foregoing it would appear that the chief need to-day is dairy education of the right type, and it is a pleasure to record that substantial progress is being made in this direction. The dairy school which revolutionized conditions in the Northwest has come into being in the South. Several years ago the writer had the good fortune to be associated with the establishment of a dairy school in connection with the University of Tennessee. This school has done yeoman service for the farmers of that State. Though established less than nine years ago, this school can point to men who have taken courses there and built up profitable herds, and it is only a matter of time until the work done by these men in their respective communities will leaven the whole lump and change the character and method of farming completely on a very considerable percentage of our farms. The work undertaken in Tennessee has been emulated with success in many neighboring States, and now practically every Agricultural and Mechanical College is emphasizing the value of dairying as a means of reclaiming and building up exhausted soils and of offering avenues of profitable employment to young men who

wish to engage in some form of farming where animals will furnish the revenue.

It is true the dairy school movement in the South has not been so widespread, nor have students flocked to them as in the Northwest, but it should not be forgotten that it took years for this movement to reach any considerable proportions even in that section, and that it has made substantial progress in the South, all familiar with the situation heartily agree. What is needed at the present time is more support for the dairy schools in the several States. Their appropriations ought to be doubled, trebled and quadrupled, and there is no money which can be expended that will bring back such a large return to the people.

There is enough money needlessly spent in the South every year for commercial fertilizers to endow and maintain dairy schools for the next one hundred years. By this I do not mean to decry the use of commercial fertilizers, but, nevertheless, it is a bad policy for farmers to expend money for nitrogen and for other forms of commercial plant food, when allowing much of that which has been provided through natural agencies to be lost in one way and another. There is no farm in the South on which crop rotations cannot be adopted successfully. This means that live stock must be maintained to manufacture the raw materials profitably and the natural conditions are especially favorable for dairying. Through the medium of the dairy herd the farmer can supply his land with more humus in the form of farm yard manure and so save a large part of the money he spends for nitrogenous fertilizers. This is a truth of vital interest and importance as well to every Southern farmer. The need to-day is to get it before him in a manner which will convince him that he is the loser by not becoming a disciple of the cow.

Greater efforts must be made to develop the dairy schools, to spread the knowledge which they are prepared to furnish, to stimulate the study of those elemental truths in the public schools by which the boys and girls may learn something of the possibilities of dairying as a business, to bring home to the young farmer and the old farmer alike the opportunities which lie before them if they will but get outside the beaten path. Happily, there is a change in public sentiment! There never was a time when there has been so much interest in all phases of agricultural education. In the last few years the Southern Agricultural and Mechanical Colleges have been more liberally dealt with by their legislatures than ever before. In Georgia, eleven District Agricultural Schools have been established, and they will make a most earnest effort to spread the dairy gospel. At the Georgia State College of Agriculture an exceptionally fine building and equipment have been provided for dairy school work and for research investigations into the many problems of this great industry as well. To change the sentiment and the methods of culture which have found favor for hundreds of years and more seems like a superhuman task; but it will be accomplished. The seeds of conquest are already ripening, and within the next few years marked changes are bound to follow. As soon as the Agricultural and Mechanical Colleges can educate and send forth a sufficient number of their

alumni to form the nucleus around which to mold public opinion, much greater progress will be made. Happily, this day is not so far distant. Moreover, economic conditions favor the development of the dairy business as never before. The demand for dairy products at a remunerative price is growing apace. White labor is being employed more largely in our dairies. Even the master of the plantation has come to look with favor upon the dignity of labor, and, with an educated leadership of sufficient potentiality to inspire the people, the future magnitude of the South's dairy enterprises will be assured.

ANDREW M. SOULE.

Georgia State College of Agriculture.

CONTROL OF HOG CHOLERA BY SERUM IMMUNIZATION.

Editor Southern Planter:

Under the great commercial activities of the present day, the active movements of animals by canal, steamboat and rail, and the massing together in our markets of hogs drawn from widely different sources, hog cholera has made extraordinary extension in America; the annual loss from this disease in the United States has been conservatively estimated at from \$10,000,000 to \$25,000,000.

Recent researches have demonstrated beyond doubt that the specific organism to which this disease is due is as yet undiscoverable; for this advance we are indebted to the researches of the Biochemic Division of the Bureau of Animal Industry at Washington, and although undiscoverable by our present knowledge of bacterial life, it fulfils all the characteristics and requirements of a communicable disease from the fact that the disease is communicated from animal to animal by natural exposure; that the blood and discharges from an animal suffering from the disease are capable of producing the disease upon healthy animals under inoculation and that attack and recovery confer immunity.

Symptoms.

The symptoms of hog cholera are by no means constant. The best informed writers on the subject agree that the disease cannot, with certain exceptions, be positively diagnosed from the symptoms; animals suffering from various intestinal troubles frequently exhibit symptoms which closely resemble those of cholera. There are two forms—the acute and chronic. In the former, animals usually die very suddenly, sometimes almost before any pronounced symptoms are apparent to the casual observer, at most after an illness of a few days; while in the chronic form the disease may run for weeks, recovery depending upon the extent, importance and location of the lesions produced. Sick animals are dumpish and prefer to huddle away in secluded corners; the appetite is variable, some may eat up to almost the moment of death; the bowels are usually costive, but not infrequently profuse diarrhoea sets in a short time before death, the color of which depends largely upon the diet; usually there is considerable reddening of the skin around the snout, ears and under sides of the body; the eyes sometimes are gummed up by reason of discharges, at other times remain clear. The symptoms vary to such an extent that not infrequently it is necessary to make a careful post-mortem to determine the exact nature of the disease.

Post-Mortem Appearances.

The characteristic morbid changes are best observed soon after death. The spleen will be found enlarged, soft and darkened; minute hemorrhagic specks may be seen on the surface of the kidney after its capsule has been removed; the lymphatic glands and serous membranes are usually most seriously involved, the former being enlarged and engorged with blood, while the latter exhibit extensive hemorrhagic areas; the cancellated structure of bones are darker than normal, and in the chronic cases extensive ulcerations are to be found in the mucous membranes of the bowels, usually at the ileocaecal region.

The diseases with which hog cholera are most likely to be confused are those arising from dietetic errors, feeding unsound grains, or food having undergone fermentative changes, kitchen slops containing alkaline soaps and powders, drinking putrid water, etc.

Treatment.

Medicines play no successful part in the cure of hog cholera, our only hope therefore being in prevention. Animals should be kept under the best hygienic conditions and only sound food provided. In large herds it is always safer to have the animals separated in small lots at some distance apart. Clean spring or well water in abundance is as much a necessity to the welfare of hogs as other animals.

Prevention by Serum Vaccination.

During the summer of 1908 the writer had the pleasure of visiting the United States Government Experiment Station at Ames, Iowa, together with representatives from various other States for the purpose of witnessing in detail the work there being conducted by Drs. Dorset and Niles, to whom credit is due for the development and perfecting of a serum of sufficient potency for the protection of susceptible animals against the disease. A general statement of the theory and plan upon which this vaccine is produced may be briefly given. Certain hogs are immune to hog cholera infection either because they have passed through an outbreak and recovered, or else by natural immunity. It has been demonstrated that when such immune hogs are inoculated with a large quantity of virulent blood they not only remain well, but their blood serum develops the certain peculiar properties, that when injected into susceptible hogs the latter likewise become immune.

The immune hog which produces immunizing serum may be given the preparation treatment in one of several different ways, and when ready to furnish serum is known as a hyper-immune. Two methods of immunizing susceptibles are possible: First, by serum only and immediately exposing the animals to natural infection; second, serum simultaneous method; i. e., by injecting a susceptible with a known quantity of potent tested serum and at the same time injecting a quantity of virulent blood sufficiently large to produce the disease if given in the absence of serum, the latter method being more certain as permanent immunity is acquired, where with serum only the animal may escape natural infection and thereby be rendered only temporarily immuned.

The work of serum production was taken up by the writer upon a sufficiently large scale only to demonstrate our ability to produce a potent and safe serum, further funds have not been available for this purpose. On account

of the great prevalence of the disease in the State during the past few months, the demands for our product has far exceeded our supplies, in fact, the only tests of its potency were necessarily made in the field in combating outbreaks; fortunately, however, the product measured well up to our most sanguine hopes.

In all we had an opportunity of testing our product in five different outbreaks, representing some 175 animals treated, and in no case did cholera appear among those injected where the disease was not well advanced in the incubative stage, although the inoculated animals were allowed to occupy pens in which cholera existed, or were in close proximity to the disease.

The question of cost of serum necessarily presents itself prominently to the interested reader, and, from our observations, based upon our limited experience, we believe that adult animals may be immunized at from sixty cents to one dollar per head, depending upon their weight, and that young animals up to two months of age may be permanently immunized by the serum simultaneous method at from fifteen to twenty cents per head.

While it is not claimed for serum that it possesses curative properties when the disease has asserted itself, our observations lead us to believe that although an animal may have passed possibly one-third of the usual incubative period, the disease may be so modified and the attack so slight as to render an early and complete recovery possible. With such possibilities, it does seem as if Virginia should get in line with sufficient funds in the near future to enable us to cope with the situation and meet the ever-pressing requests for aid which are reaching us weekly, yes, frequently daily, and wage a war against this deadly disease on the same sound footing we are now able to combat blackleg in cattle, which, without vaccine, would unquestionably depopulate our rich bluegrass mountain pastures.

Certain defects remain to be remedied in this product. Under the present methods of serum development the dose is necessarily bulky, and the cost somewhat heavy. It is earnestly hoped, however, that methods may be perfected by which the potency of the serum may be intensified in order that the dose may be lessened and the cost reduced.

JOHN SPENCER, Veterinarian.

Virginia Polytechnic Institute,
Blacksburg, Virginia.

THE CORN PRIZES.

Editor Southern Planter:

In a friendly spirit and recognizing the public spirit and patriotism of the Times-Dispatch in organizing a corn contest, I wish to criticize some features of it and offer a few suggestions.

The present plan offers large cash prizes for a few ears of corn, which can be grown on the farm, in the garden, or in a back city lot. There are no lessons of seed selection for greatest growth of grain or fodder, of preparation of the soil, of cultivation or of any other important factor in growing fields of corn in Virginia. These are great questions in the future development of our State, and on all of them we receive knowledge. This plan also rules out the varieties Virginia originated—Cocke's Prolific—and its seedlings, Albemarle Prolific,

Eureka, and others—which seem to be the greatest of all varieties in the production of grain and fodder.

It seems to me that this contest should be organized for a series of years in which we could profit by the lessons to be drawn from the experiments which would be made and that at least a part of the contest should be by the acre or half acre. If the amount offered were divided so that a part of it could be applied to acre contests, two good results would follow—we would teach the farmers of Virginia how much corn could be grown on their lands and what great possibilities are in their lands; and, second, we would show the outside world what Virginia can do as a corn growing State.

Do you know, Mr. Editor, there are thousands of farmers in Virginia who do not believe that an acre will grow as much as 150 tons of shelled grain? A dozen or even less of such crops in different sections of the State would be an object lesson worth a great deal. Then, many of our friends in the North and West think of Virginia as a worn out, abandoned field for agriculture. Such crops in the different sections of the State would demonstrate to them that there is no greater corn growing section in the United States, where as much corn to the acre can be grown as on the best Western land and of far superior quality.

SAML. B. WOODS.

Albemarle Co., Va.

We are entirely in sympathy with the views of Mr. Woods as to the manner in which it is proposed to award the corn prizes. We think the contest will fall far short of what it ought to accomplish if limited solely to the awarding of the prize money simply for ears of corn. We were anxious to demonstrate to the world the capacity of Virginia to produce the greatest yield of corn per acre as well as the finest quality of corn, and we fail to see why this could not have been provided for. It is true that the prizes for such a competition could not have been awarded at the time of the Fair because of the fact that the crops would not then have been sufficiently matured and cured to ascertain the results, but this need not have prevented an exhibit and award of prizes for the best ears at that time and the award of the acreage and yield prizes could have been made and announced later. We hope yet that some of the contestants will not only strive for the ear prizes, but will also demonstrate what they can produce per acre, and if the fund grows as large as we hope to see it do, then arrangements should be made for award of part of the money for these crops.—Ed.

STARTING AN ENDLESS CHAIN.

Both father and mother struggled valiantly to teach little Effie to repeat the letter "A." The child emphatically refused to pronounce the first letter of the alphabet, and after many vain efforts the father retired from the fight discouraged. The mother took the little girl on her lap and pleaded with her affectionately.

"Dearie, why won't you learn to say 'A'?" she asked.

"Because, mamma," explained Effie, "des as soon as I say 'A' you an' papa will want me to say 'B.'"

The Poultry Yard.

POULTRY NOTES.

This is the beginning of the trying period for the henman. Hot, dry weather means plenty of lice and mites. This means trouble. Watch for the mites in every crack and crevice. Spray with lime and crude carbolic acid or kerosene oil and crude acid, two parts oil to one part acid. Clean the nests often and dust them with Persian insect powder. Have a dry place where the hens may dust themselves in dry, loamy earth. Put a few handfuls of lice powder into these places occasionally. Take all the males from the roosts once a week and dust them thoroughly all over. They are too lazy or too dignified to dust themselves and thus become a breeding place for the grey body lice. Watch the hens and keep them off the nests at night. If they get broody do not let them stay on the nest over night. If they sit forty-eight hours they will become very broody and will not lay for twenty days. If you take them in the start and confine them and feed them oats and wheat they will lay in a few days. I am still getting a yield equal to 90 per cent. Feed very little corn or any heating feed. Provide fresh water at least four times per day. See that the laying stock has ample shade. Keep the young stock in small flocks at night. Keep the different sizes separate. Keep them growing. Sell the cockerels as soon as they weigh eighteen pounds to the dozen. I sold a large lot of prize winners May 19th at 25 cents per pound. This makes the quick dollar. It does not pay to keep them until next winter and advertise them and sell them for breeding purposes. With all kinds of feed very high in price and much of it inferior quality one must turn the money often. Two pound fryers in eight weeks at 50 cents each is not equal to Standard Oil stock, but it leaves you with a clear conscience and a good appetite.

Brooder chicks must be watched closely. Keep them warm at night and cool and busy in the day time. If you allow them to get cool at night they will pile up and trample each other to death. Keep heat in the brooders and give ventilation. In this way they can adjust themselves to the temperature that suits them. You cannot make them too hot if they have a cool section of the brooder to go into. Do not feed them sour or musty food. For little chicks the first week scald the mash or use hot sweet milk to make a dry, crumbly mash for the morning feed. Any of the small breeds hatched this month will begin to lay in November if fed right.

If your chicks stand and sleep and droop their wings, they have indigestion. Give them fine grit, charcoal, boiled milk, and keep them warm. Those that will not eat are too far gone and will die, but you can save all that will eat. If you can get a small amount of lean beef for them it will help them wonderfully.

We are filling our incubators to-day (May 20th) for the last hatch. These chicks will be our best winter layers. They will come out of the shells June 10th, and will get good feed and care and will begin to lay by November 15th. We are putting eight hundred eggs into this hatch and hope to get a good "swarm." These June hatches always turn out a large per cent. of pullets. Our first hatch was a good one, but fully 70 per cent. were cockerels.

All of them but ten have gone to the frying pan. The pullets from this early hatch weigh over two pounds now and I hope to have a few eggs from them by July 4th. I suppose they will moult late and will not be very profitable winter layers.

The madam is showing a very commendable and really astonishing spirit in her race to overtake me. She has three pens of Barred Rocks, great big, lazy lubbers. The roosters are too lazy to crow. Somehow, or in some way, Mrs. Husselman manages to get these hens to lay a good number of eggs and as fast as she gets them she puts them under hens and incubators and then gives all the chicks to hens. It is really amusing to see one of these big lazy old Rock hens try to spread herself over forty of these children and stepchildren, but the look of contentment and happiness of these hens is equalled only by the triumphant look of the Madam. She has about one hundred and fifty of these ringed, streaked and speckled bipeds in the yard and no telling how many eggs tucked away in odd corners and boxes that are liable to burst into Barred Rocks at a moment's notice. What worries me is the fact that my good leghorn feed disappears into the fathomless maws of those Rocks daily, yes, hourly, and I have no redress. If this is not a case of genuine henpecking, then I do not know what to call it.

Sadly yours,

CAL HUSSELMAN.

WHOLESALE HATCHING WITH HENS.

Editor Southern Planter:

Your May issue contained notes by Mr. A. F. Hodes, on "Hens vs. Incubators," which, while written in a jocular vein, is yet characteristic of the unfair way in which comparisons are often drawn.

Our friend speaks of the exasperating experiences with setting hens, of their proneness to get upon the wrong nest, to fight, break eggs, desert, trample chicks, etc., and thinks we may improve upon nature in chicken hatching.

Now, his whole article proves that he has violated the laws of nature in the way he set his hens. Nature provides the sitter an opportunity for undisturbed silence and peace. In nature the hen's ancestor saw only her own nest during the broody period; furthermore, the nest was so made that the eggs could not roll from under the hen. A nest in which this is possible has been built without regard to the first principles of poultry architecture.

Now, how many eggs will the best machine hatch if it is placed in the general hen room, where the cock-of-the-walk may perch upon the thermostat while he wakens the sluggard, and the hens may clog the ventilators with dust and filth! Absurd, of course! The machine must have a suitable place. You cannot ask it to go out in the hen house and hatch eggs, yet you ask this of the hen, and blame her if she can't count a row of twenty nests so as to know No. 6 from No. 8, yet who ever sent her to school, and in nature she had no need for arithmetic, for the nests were not ranged in rows, but isolated and apart.

To-night, May 21st, I have twenty-five sitting hens and will start seven more to-morrow. I have had an average of twenty busy for the past month and not a single case of two-hens-on-a-nest, or a fight. I aim to set from three to ten hens at once and test out the infertile eggs as from a machine, then double up those which remain so that all hens are full, and fill up any remaining space with eggs of same date as the next later sitting. Each hen has her own nest and yard. The nests are made three-in-a-box, the box is four feet long by sixteen or eighteen inches wide, cover sloping to back, cut into three so any hen can be looked after separately. In front is a yard of common plastering lath four feet square with lath run through to divide it into three runs of sixteen inches by four feet. This yard fits up in front of the sitting coop, and hens go out to eat and drink at pleasure, but cannot get more than four feet from home. The sitting coops are out of doors, but in the shade. A little girl of seven years takes the daily care of these twenty-five hens. Thus far my poorest hatch has been fifty-five chicks from eighty-eight eggs, and my best fifty-four chicks from sixty-four eggs. The chicks here counted are only those which actually went into the coops with the hens. All which were trampled or defective in any way are counted out with the spoiled eggs. One hen hatched every egg and others every fertile egg.

We lose very few by trampling, for when a bunch of hens begin hatching we make the rounds twice daily and gather up the chicks, and if a hen is restless we distribute her pipped eggs to the other hens as fast as they have room for them. I keep little chicks (while waiting for hatch to be completed) in a deep pail or box half filled with chaff with a hot brick or soapstone buried well under the surface. Spread a cloth over pail, if air is chilly. I coop the hens with about twenty chicks each, and reset the heaviest hens, as these have more flesh to furnish heat through three more weeks of fever.

Progress of the Flock.

In continuing the development of our flock of Barred Plymouth Rocks to the limit of profit, we have reached the point where the preparation and shipment of the products is something of a tax on my time. In the spring of 1908 I had forty females of our old large strain. On January 1, 1909, we had, I believe, four hundred and twenty-eight old and young, many of them too young for that season, and our incomplete housing arrangements. To-day we have about one hundred and fifty females in five separate free range flocks, and the gross sales since January 1, 1909, have been just about \$500. This means that a good many birds have been boxed for shipment, and the eggs made even more work, as we have sold for hatching 3,885 eggs this season. This means a good many pails and crates to pack and carry to the express office, and this work I do myself. The older girls are taking lessons, however, and will be able to relieve me next season, so I may enlarge a little more. The eggs for hatching business has been just about three times as big this year as last. I believe now I will try selling "weaned chicks" in competition with the "baby chicks" of the incubator men. With a sitting hen capacity of about six hundred eggs, we ought to be able to turn out over one hundred chicks per week.

Vienna, Va.

W. A. SHERMAN.

THE VIRGINIA STATE FARMERS' INSTITUTE.

The Directors of the Virginia State Farmers' Institute met at the office of the Secretary in Richmond, Va., on May 18th, and selected Charlottesville, Va., as the place, and August 10th, 11th, and 12th as the days for holding the next session of the Institute. A program committee was appointed, and has already set to work to arrange a most elaborate and instructive program. Speakers of national reputation as well as practical farmers and specialists, in their respective lines, will have something to say that no farmer in Virginia ought to fail to hear.

The Charlottesville Chamber of Commerce will entertain the Institute with an outing to Monticello. This beautiful and historic place will be well worth the time spent in making the trip.

Dr. Alderman, of the University of Virginia, has kindly thrown open the grounds and such buildings as are needed to the Institute, and this will afford a most excellent opportunity for the farmers of the State to inspect this great head of the Virginia Free School System.

Another feature which will interest a number of members, will be a sale of pure-bred Berkshire hogs on the day after adjournment of the Institute, by the Virginia Berkshire Association. This Association will hold its annual meeting at this time also, and all those interested in this particular breed will be welcome, and will doubtless hear a great deal to interest them.

The only qualifications necessary to become a member of the Institute are, that you be a farmer or interested directly or indirectly by lease or ownership of farming lands, and as the fee is only \$1.00 per year, every farmer in the State should become a member. Simply address the Secretary, B. Morgan Shepherd, Drawer 840, Richmond, Va. He can be found at his office, at 28 North Ninth Street, Richmond, pretty nearly all the time.

THE BACON HOG.

Editor Southern Planter:

One could naturally infer from Prof. Massey's paragraph on "Hogs" (p. 469, your May issue) that all domestic pigs might be divided into two classes, viz: the scrub or razor-back, and the "lard" hog. I desire to protest against this classification. There is clearly another type. One which is neither a short legged, short nosed, heavy jawed, duck-walking, ninety-per-cent-fat lard hog or a four-years-to-weigh-a-hundred-pounds scrub.

The Tamworths have been noted for years for the high quality of their meat and the relatively large proportion of lean to fat in the carcass, while in most of the breed tests which I have seen reported they have shown themselves to be equal, and in cases superior, to the other breeds as economic meat producers. In a test by the Ontario Agri. College (see Henry's "Feeds and Feeding," p. 545) the Tamworths consumed less feed per pound of gain than the Berkshires, Poland-Chinas, Yorkshires, Chester Whites or Duroc-Jerseys.

In the writer's opinion, the breed, directly, will have less effect on the quality of the meat than the feed and the conditions under which it is fed; but the breed decidedly affects the conditions under which it can be fed and hence,

(Continued on page 612.)

The Horse.

COTTON SEED MEAL FOR HORSES.

Editor Southern Planter:

In your last issue I note the statement from Mr. Smith, of Georgia, that "overfeeding will weaken the eyes," and that in feeding to horses and mules he suggests "that great care be used." Your editorial comment is in accord with my experience and observation, and I have not been able to learn from any one of unsatisfactory experience. Personally, I regret exceedingly that a single line should have been written by any one that would discourage the feeding of cotton seed meal to farm teams or any horses, in fact, for the introduction of just such a rich protein feed is needed in making up the rations for our horses. Mr. Smith's brief letter has been read by hundreds, doubtless, who will abandon cotton seed meal, or be very cautious and possibly imagine it is affecting the eyes of their horses. I have had letters from three Virginia farmers who had commenced feeding cotton seed meal and are now exercised on the subject.

One letter from one of the V. P. I. Farmers' Winter Course men is as follows:

"I noticed in the Southern Planter that some one mentioned that if those who feed cotton-seed meal are not careful, it will affect the eyes of horses and mules, and weaken them. What do you think of it?"

"I have begun to feed my horses on cotton-seed meal, and have been feeding it for two weeks. I started by just sprinkling a very little over their grain, and now I am giving a good handful at a feed. Am I feeding it right? I have my corn ground to fine hominy, and then I put two-thirds hominy and one-third oats in a large box, and put in the cotton-seed meal and a little International stock food and mix well. Do you think that a good feed for farm and transfer horses?"

"Should I grind my corn coarse or fine? Is it best to change feeds of hay or not? At the present, I am giving timothy and clover hay at morning, and corn fodder at noon, and crimson clover at night feed."

"I have a large amount of clover hay. Could you give me any idea as to how to feed it? What would you call a feed of cotton-seed meal?"

"J. A. SHARP.

This letter covers other matters of interest in feeding horses, and I will answer briefly his questions through your columns, that others may be benefited. In the first place, I am convinced from experience, begun years ago, that cotton-seed meal will not injure the eyes. Mr. Smith fed a handful at night. You can safely feed two pounds a day, and I have fed three pounds with no bad effect, feeding a pound at a feed three times daily, but to work horses two pounds a day is better. This is the amount recommended by Judge Henry C. Hammond, of Augusta, Ga., the greatest authority on the subject of feeding cotton-seed meal to horses, with whom I have had extended correspondence on the subject. A most comprehensive illustrated pamphlet (Bul. No. 10) on the subject was published a few years ago from Judge Hammond by the Bureau of Publicity, Columbia, S. C.

Much question is often raised regarding any new feed, and all sorts of imaginary evils are suggested. The question of abortion in mares from the use of cotton-seed meal was one. Judge Hammond says, "I do not think there is the remotest danger from abortion from cotton-seed meal fed to brood mares in reasonable quantities—not exceeding two pounds a day." One of the illustrations in the bulletin mentioned is a picture of a mare and colt, three hours old in connection with which is the remark: "Mare had been fed on cotton-seed meal during gestation period. Notice there was no weakness in foal." Cotton-seed meal is a great dairy feed, why should we expect any more deleterious effects with mares than cows. You can safely and advantageously feed it. Commence in small amounts, and increase gradually to the desired amount, taking into consideration the size of the animal, and keep the amount fed down to at least one-fifth of the grain fed, unless to a mare with foal, when a greater proportion will be an advantage to the colt through the milk.

Corn may be ground fine or coarse, but finely crushed cob and corn is now found to be the best, with which bran or oats and cotton-seed meal mixes well. I should not recommend Stock food nor any condimental food. They are medicines which your stock may not need. If there is anything wrong, it is always best to consult a veterinarian, and be able to get and administer what your animals need without any guess work.

A change in roughage is always appreciated by horses, and keeps them with better appetites. They enjoy variety as much as we do. A farmer must feed his hay according to his horses' demands—some more; some less. It is hardly practical for him to weigh each feed. Clover hay is not only good, but a desirable feed for work horses, mixed hay is better. If dusty it should be sprinkled. In summer especially I like it used in chop, as you would use sheaf oats. The Cotton-Seed Oil Co., Charlotte, N. C., have a booklet on cotton-seed meal for horses and mules for distribution free. I will be pleased to discuss other phases of the subject later. Do not feed cotton seed meal to hogs until you know how.

W. J. QUICK,

Professor of Animal Husbandry.

Experiment Station, Blacksburg, Va.

Our usual "Notes" by W. J. Carter reached us so late that we were unable to bring them into this Department. They will be found in the advertising section.

August Belmont, as a Director of the American Jockey Club, issued a statement last week that gave great encouragement to the followers of Eastern race tracks. He declared that the laws against race track betting would be enforced, but expressed the opinion that the sport was on a substantial footing and that he was sure that the courses would be liberally patronized under the new conditions.

Miscellaneous.

THE COMMISSIONER OF AGRICULTURE FOR VIRGINIA.

A contest for the Democratic nomination of a candidate to fill the position of Commissioner of Agriculture for this State is now a settled fact. The first information we had of this was the following article, which we copy from the Lynchburg News, of the 2d of May:

Hon. John Thompson Brown, of Bedford county, announces that he will be a candidate for the Democratic nomination for Commissioner of Agriculture, at the coming primary. The incumbent of the office at present is Hon. George W. Koiner.

Mr. Brown was born at the residence of his maternal grandparents, in Hanover county, February 19, 1861. He has always lived at his present home in Bedford county, spending the winters from 1868 to 1877 in Petersburg. He was educated at McCabe's School, Petersburg, and at the University of Virginia.

As a Farmer.

Immediately after leaving college, Mr. Brown began farming at home, and has always taken special interest in every movement for the advancement of the agricultural interests of the State.

He was interested in, and a member of the Executive Committee of the Farmers' Assembly, a voluntary gathering of Virginia farmers for discussions helpful to their avocation, which ante-dated the Farmers' Alliance in Virginia, of which latter organization Mr. Brown was one of the most conservative members.

He was a life member of the old State Agricultural Society, and a member of its Executive Committee, and he was on three occasions commissioned by the Governor of Virginia a delegate to the Farmers' National Congress.

At the V. P. I.

It was the Farmers' Assembly that first voiced the demand that the State Agricultural College should be made a real force for the upbuilding of the interests of agriculture.

In 1890 Mr. Brown was made a member of the Board of Visitors of this institution, the enrollment of students then numbering about 125. He served till 1896, and was reappointed in 1898, becoming the Rector of the Board that year to succeed Captain C. E. Vawter, resigned.

During his service as Visitor and Rector, the college made the rapid strides that have placed it in the forefront of Virginia's institutions of learning. Mr. Brown served as Rector till July, 1908, when his term expired, and, during the absence of Dr. McBryde for his health in 1905-1906 he was by election of the Board of Visitors charged with the duties of the president, and offered a salary of \$2,000, but declined to accept any remuneration, as being inconsistent with his position as member of the Board of Visitors and Rector, but consented to, and did, exercise a close supervision over the affairs of the college, with the efficient assistance of the Deans of the institution, during the enforced absence of the President. When Dr. McBryde retired permanently Mr. Brown was prominently mentioned as his successor.

During his terms of service on this Board (V. P. I.), Mr.

Brown was instrumental in securing the creation by the Legislature of the Board of Crop Pest Commissioners of which he was a member from its organization, and for ten years its chairman. The work of this Board is well known, in its efforts to eradicate from the State the San Jose scale and other insects injurious to the fruit and other crops of the State.

A Signal Service.

Ten years ago the Federal Government proposed, and actually did issue an order, placing the whole State of Virginia in quarantine on account of the presence of the Texas fever tick in the Southern portion of the State. The effect of this order would have been very seriously detrimental to the great cattle interests of the Southwest and Northern Virginia—sections of the country as fine as any in the world for the purposes of cattle breeding, as shown by the fact that it represents a large portion of the territory of the United States able to prepare cattle for export from grass alone.

When this order was promulgated, Dr. McBryde, then President, and Mr. Brown, then Rector, of the Board of Visitors of V. P. I., went immediately to Washington and laid the situation before the Secretary of Agriculture, who agreed to withhold his proclamation to give an opportunity for the Legislature of Virginia to act, as without such action no line could be run through the State.

The result of this prompt action was the creation by the Legislature of the Board of Cattle Quarantine Commissioners—since designated the State Live Stock Sanitary Board—of which Mr. Brown was made Chairman, serving for the next ten years—to July, 1908.

During this time the quarantine line has been forced South from James River till now only a very few of the most southerly counties are in quarantine, and they are rapidly being cleared of infection.

Mr. Brown was active, too, in the establishment of the Virginia Truck Experiment Station, near Norfolk, under joint control of representatives of the local trucking interests, the Board of Agriculture, and the Virginia Polytechnic Institute, and with the co-operation of the United States Department of Agriculture, and he served as a member of the first Governing Board that put the Station into operation.

Mr. Brown was a member of the General Assembly of 1891-2, and presidential elector for the Sixth Congressional District in the campaign of 1892.

In the Constitutional Convention.

In 1901 he was the colleague of Mr. Goode to represent the county of Bedford in the Constitutional Convention. In the convention he was a member of the Committees on Taxation and Finance, Education, and Journal and Enrolment of the Ordinances and Resolutions of the Convention.

His work on the Committee of Education and in advocacy of its report on the floor of the Convention was directed to perfecting the educational institutions of the State and to removing the control of these forces as far as possible from political considerations.

While not a member of the Committee of Agriculture,

he was a foremost advocate on the floor of the report of that Committee, especially in its efforts to promote the healthy union of forces for the benefit of agriculture, holding that "it means the separate and independent establishment, but the permanent union in interest, of the various agencies working for the advancement of the agricultural interests along progressive lines."

Mr. Brown's record as a disinterested and forceful advocate of such separate establishment, but permanent union in interest, of every agency working for the advancement of agricultural interests of the State has contributed largely to lead to his being urged to allow the use of his name as a candidate for this position in which the opportunity is great to develop unity of purpose and action of all the separate forces at work for the uplift of Agriculture in Virginia.

His Work for Good Roads.

There is no question of more importance to the interest of agriculture than that of good roads, and it is a fact that none of the work now being undertaken with so much vigor by the State in the interest of improvement and permanent construction could have been done without the forethought and persistence of Mr. Brown as a member of the Convention in opening the way for future road legislation. His first service was to induce the Convention, on his motion, to except the words "working roads and highways" from the provision, in the report of the Legislative Committee, requiring and allowing only general laws on certain subjects. Extensive debate was had resulting in final passage of his amendment, the effect of which was to leave the Legislature free in matters pertaining to roads to enact local as well as general legislation, thus enabling it to pass laws suited to the diversified topography of the State.

His signal and unique service, however, to the cause of good roads was performed when he secured the insertion of the words "except public roads" in the clause of the Constitution which prohibits the State from becoming a party to, or engaged in, any work of internal improvement. Mr. Brown advocated this amendment in the Committee on Taxation and Finance, of which he was a member, and before which this clause was up for consideration. He was defeated here.

In the Committee of the Whole he renewed the fight and was opposed by some of the leading men in the Convention, and his amendment was again defeated.

As a last chance he renewed the fight in the Convention, with his amendment as follows: "After the word 'improvement' insert the words 'except public roads,' so as to read 'nor shall the State become a party to, or become interested in, any work of internal improvement, except public roads.'"

This resulted in the passage of the amendment by a substantial majority and made possible the work now being undertaken by the State in the interests of "goods roads." It is a singular fact that in a matter of this importance, though debated twice by some of the most prominent and able members of the Convention in opposition, that Mr. Brown alone had a word to say in support of this most important provision, and without his action what the State is now doing would not be possible.

Object of the Amendment.

His words in closing the debate on this amendment proposed by him seem prophetic in the light of what has since been accomplished. He said:

"The purpose of this amendment is to clear up the meaning of the words 'internal improvement' so that there shall be no doubt on the subject. Its adoption will leave the Legislature free to make such appropriations from the public revenues as it may deem wise. It may create and maintain a bureau of public roads, with a capable head, and enable the State to adopt a systematic plan of instruction and aiding the several counties of the State in the best methods of road construction.

"I do not advocate building or maintaining roads at State expense, as I think it should be done by local taxation, but I do not want any provision incorporated in the Constitution that will prevent the State from making such advances in the improvement of the roads of the Commonwealth, and from taking such part in said improvement as experience may show to be desirable. I think the General Assembly should not have its hands tied.

"It seems to me, too, that an adverse court might interpret the wording of the report as it stands to mean that the State could not employ convicts of the State in work upon the roads of the counties. I hope it will be the pleasure of the Convention to adopt the amendment which I have offered."



HON. JOHN THOMPSON BROWN.

After reading the foregoing announcement we wrote Mr. Brown and asked that he would state the platform on which he proposed to make his contest for the position in order that we might place the same before the

farmers of the State, who have a vital interest in the character of the man and his conception of the duties of the office. In response to this request, Mr. Brown has sent us the following communication, which we have pleasure in placing before our readers, together with a likeness of the gentleman seeking their support:

Brierfield, Bedford Co., Va., May 18, 1909.

Editor Southern Planter,

Richmond, Va.

Dear Sir:—I am in receipt of your inquiry as to the policy I shall attempt to inaugurate should I receive the nomination and be elected Commissioner of Agriculture, and, in reply, wish to point briefly to some of the reasons which actuate me in offering for this responsible position.

As a farmer of nearly thirty years' experience, I have an abiding faith in agriculture as the basis of all permanent prosperity, and a successful development of the varied resources of Virginia will surely mark the period of her return to that position of advantage which the diversity of her soil and the variety of her products, coupled with her nearness to the great markets, justly entitles her to occupy, and which she will assuredly regain if the energies of her people take proper direction.

It is necessary, however, to the accomplishment of this result, as far as agriculture is concerned, that all the forces working to that end, while maintaining distinct and separate organization, shall be drawn together into the most harmonious relations, so that the effort of every line of endeavor working for the uplift of agriculture of Virginia shall have its fullest energy expended toward the accomplishment of the purpose common to them all—the restoration of Virginia to that position of agricultural and material supremacy whence must also follow leadership in other lines.

It is my firm belief in the prime necessity of this one feature as essential that I would make the basis of my aspiration to this office which I seek at the hands of the voters of my party in the coming primary.

Recognizing, as I do, the great responsibilities involved, as well as the opportunities offered, I must rest an appeal for support not alone on promises for the future, but on any record of intelligent effort and sincerity of purpose to which I may be entitled.

Yours very truly,

JOHN THOMPSON BROWN.

Now, just a word as to the position of The Planter in this contest. The record is The Planter for the twenty years during which we have had the honor of filling the position of Editor, will bear us out when we say that we have never used that position or allowed the columns of The Planter to be used for the advancement of the political interests of any one for any office in the State Government. We have eschewed all politics, but have stood for the agricultural advancement of the State and for the uplift of the farmers without regard to the source from whence the promise of this came. This is our position to-day. The Commissioner of Agriculture ought not to be a political officer, nor ought his election ever to have been made necessary on a political ticket. We strongly urged this before the Committee of the Con-

stitution Convention, and that Committee adopted our views and reported to the Convention that as the executive officer of the State Board of Agriculture he ought to be elected by the Board. The Convention at first accepted and adopted this report, but, unfortunately, the politicians got in their fine handiwork and, on reconsideration of the subject, the office was made elective by the people and the curse of politics was thrown around it. It is unfortunate that this is so, but it is now unavoidable. We, however, propose not to let this fact influence us or change our policy. What we shall endeavor to do is to secure the election of a gentleman who, in the discharge of the duties of the office, will have regard only to the advancement of the agricultural interests of the State and the permanent welfare of the farmers. In Mr. Brown we think we have such a man. We have known him personally for over twenty years and have watched his conduct in all the public positions which he has filled during that time. He has measured up to the requirements of each of these. We commended his appointment when first placed on the Board of Visitors of the Agricultural College, at which time there were only about one hundred students in attendance and the college was at a low ebb. He gave unstintedly of his time to the development of the work of that institution without fee or reward for sixteen years, and when he left the position it was with a college having nearly six hundred students, a full Faculty of professors, and a recognized standing as one of the most successful of the Southern colleges. In that position he always worked for the co-ordination and harmonious working together of the different agricultural institutions of the State, and this to-day is the greatest need we have in order to secure the agricultural advancement of the State. We are glad to see that in his platform he emphasizes this point. When all our agricultural institutions are co-ordinated and working together harmoniously, nothing can prevent the greatest results being achieved. It is notorious that up to the present time no such co-ordination or harmonious working has been possible to be achieved mainly through the lukewarm attitude, to say the least, of the present Commissioner towards every other instrumentality established for dealing with the different phases of the agricultural problems of the State. We are content to rest Mr. Brown's candidature as he himself mainly does on this feature and upon his record in the Constitutional Convention, on the Blacksburg Board, and in the Legislature, as set out in the article from the Lynchburg News, and we would ask our readers to give a careful reading and consideration to that article before deciding in which way they will cast their votes at the coming primary.

THE VIRGINIAN AGRICULTURAL INSTITUTE.

Editor Southern Planter:

The Virginian Railway Company, in connection with the Virginia Polytechnic Institute, arranged for a series of Farmers' Institutes along the line of the new road, running through a splendid agricultural portion of Virginia which has not heretofore had the advantages of a railroad and hence are much in need of an introduction to

the new ideas in agricultural, horticulture, dairying and animal husbandry.

The Virginian Railway, desirous of increasing their freight tonnage with farmers, viewed the running of such a train as a most legitimate means to a much desired end, the farmers to be the direct beneficiaries of the project. The Railway supplied a train for a weeks' trip. This train consisted of two exhibition box cars, one exhibition stock car, and a private car for the accommodation of the speakers. The Agricultural College and the

ing affairs and live stock, unquestionably added many advantages to the occasion in addition to those brought to the meeting by the railroad train in form of exhibits and up-to-date, practical, scientific speakers.

As it is likely that all the railroads will at least annually repeat these Railway Farmers' Institutes, it is perhaps not amiss to give a list of the speakers and subjects, that the farmers may know what subjects were discussed and will likely be considered again and will thus be enabled to have some idea of what they missed and



Scenes along the Virginian Railway—Farmers Flocking to the Institute Train.

Experiment Station of the Virginia Polytechnic Institute very readily agreed to supply speakers for the occasion and to instal a creditable exhibit representing the products, appliances, implements, utensils and even live stock from the numerous departments of the V. P. I. representing scientific agriculture and kindred subjects. A prominent feature of the exhibits was the animals that represented the three dairy breeds and the three beef breeds of cattle and two breeds of sheep; these breeds being Holstein, Jersey, Guernsey, Shorthorn, Angus and Hereford; and of sheep, Dorset and Shropshire. Thousands of farmers and their families visited these exhibition cars and received instructions from the professors and attendants from the V. P. I.

The Institutes along the Virginian Railway were held at the following points: Kembridge, Lunenburg county; Phenix, Charlotte county; Stewartville, Bedford county; Victoria, Lunenburg county; Brookneal, Campbell county; Altavista, Campbell county, in all day sessions.

This manner of holding Railway Train Institutes is very much to be commended as it is evident from the Institute just held that a large attendance can be secured and that the people along the Virginian were more anxious for the opportunities extended by these Institutes than they have been along other lines of railroads. It is asking a great deal of a farmer to abandon his business affairs on his plantation and drive many miles to a Train Institute which is to last only an hour or two. While for an all day Institute a warehouse or hall is secured and the local committee feel that it is justified in making arrangements for a meeting that is to be of sufficient importance to occupy the entire time of a day. At these Institutes the farmers made a real gala day of the affair and a real old fashioned farmers' picnic was held. The general good time meeting with friends and acquaintances, discussing the various subjects of farm-

what is to be gained by hearing experts discuss subjects of vital interest to them. They were as follows:

R. J. Davidson, Professor Agricultural Chemistry, V. P. I., Blacksburg, Va., "Commercial Fertilizers," "Farm Manures."

Dr. W. J. Quick, Professor Animal Husbandry, V. P. I., Blacksburg, Va., "Live Stock Essential to Successful Farming," "Diversified Farming."

Professor W. K. Brainerd, Dairyman, V. P. I., Blacksburg, Va., "Dairying in Virginia," "Improvement of Live Stock."

E. H. Matthewson, Tobacco Expert, U. S. Department Agriculture, Washington, D. C., "Tobacco Culture," "Tobacco Growing and Rotation of Crops."

Professor H. L. Price, Horticulturist, V. P. I., Blacksburg, Va., "Fruit Growing," "Growing Fruit and Vegetables for Canning."

Professor Lyman Carrier, V. P. I., Blacksburg, Va., "Growing the Corn Crop," "Grasses and Hay."

As Agricultural Colleges and Experiment Stations cannot be visited by all and the advantages be gained by actual contact with them, it is certainly advisable to as nearly as possible, carry the Agricultural Colleges and Experiment Stations to the people, certainly so if as in the recent event the farmers continue to show as great an appreciation as was expressed in this instance.

Mr. B. E. Rice, the Industrial Agent of the Virginian Railway, is certainly to be commended upon his splendid management of his Farmers' Institute train, and his courteous attention to the welfare of the speakers under his direction. Mr. Rice's years of practical experience in Farmers' Institutes in other States served him well, and made him thoroughly at home with his undertaking. The constant disposition and expressions of the farmers along the route indicated their entire satisfaction at his management of the Institute in their respective locations, and

all expressed a desire that now, the ice is broken, and that they have learned to appreciate the efforts in their behalf, that a similar series of Institutes be held this fall, when better accommodations and greater crowds will be in attendance. Q.

STEAM PLOWING AT WILTON.

Editor Southern Planter:

Replying to your inquiry relative to the steam plowing outfit which I have installed at my place, and also as to the place itself, I beg to say:

My plantation is known as "Wilton on the James," and is the old original home of the Randolphs, situated five miles below the City of Richmond; has a shore boundary of about three miles on the river. The plantation consists of 1,237 acres, 800 of which is open arable land; 300 acres of this is river low ground. A very peculiar condition of soil exists on Wilton, in that it varies in consistency from a clay loam soil on the high grounds to a sandy mixture of light land of reddish loam, to the heavy limestone deposit on the river bottom.

I came in possession of Wilton and moved thereon one year ago last March 1st. I immediately set about with some forty-five head of work stock to plough the land, and get it into a condition to produce crops. The place had been somewhat neglected and used for stock and sheep, and the ground was very hard in places, and dif-



Plowing and Harrowing at the Same Time.

ficult to manage. After this experience in preparing the soil, I discovered it was very expensive to operate a large number of teams on a plantation by the use of the help available, as many times when hands were paid off on Saturday night, they would not return to work Monday morning, nor perhaps the following week; consequently teams were left standing in the stables, the land was not worked, and, of course, the horses and mules had to eat.

I had many times seen plowing outfits in the western country, and I decided to investigate the practicability of ploughing my plantation with mechanical power. I set about to investigate the various methods claimed would do successful work, and began negotiations with the Watt Plow Co., for installing a steam ploughing outfit on my place on trial about February 15th, and on the 1st of April, or thereabouts, the outfit reached Richmond, and

was moved to Wilton. The plows are the John Deere big gang steam engine plow, consisting of eight gangs, cutting fourteen inches each, and are a model of perfection in construction and operation in every way. This particular set of plows are of a new and improved de-



Rear View of the Outfit.

sign, and, in fact, are the first of this type turned out by the John Deere Co., and were supplied especially for the Watt Plow Co., to fill this order. These plows are mounted on wheels which carry them about the field very readily, can be raised from the heaviest soil by one man, through the operation of a peculiarly constructed lever of enormous power, and it is so very simple that it is impossible for it to get out of order. The plows themselves carry gauge wheels to regulate their depth, and even the soil; and it is certainly a beautiful sight to see a field, no matter how rough it has previously been, after a John Deere plow has been passed over it, and I do not hesitate to say it is impossible to plow with horse power and man power, and do the work that will compare with the work done by the John Deere gang plow.

And as to the benefit derived from tilling the ground with such plows, and putting it in an even condition, I am sure it will show on the first crop.

Of course any one will readily understand that the main feature of the plowing outfit is the power, and after power it is the practical way in which it is applied, and if it be durable. After thoroughly investigating the various methods and principles of traction engines, and consulting the methods of men who have used them in the Northern States, many of whom were my personal acquaintances, I decided on the Huber engine, built in Marion, O. The Watt Plow Co. had one of these engines forwarded, and I must say that it has surprised me in the satisfaction that it has given, although I had previously received strong recommendations of its worth. We have thoroughly tested this engine, over all sorts of soil conditions on Wilton, from the stiff soil on the uplands, through the sandy loam on the intermediate level, and down through the limestone of the river bottom, and it has proved itself master of the situation in every test we put it to, and proved that plowing with a Huber

engine as power, and a John Deere gang as plows, is certainly a success, both as being superior to horse power in an economical way and a financial investment, and as also being a "hired man" you can depend on when you want him. Again, when he doesn't work, he doesn't eat; he is not subject to the ills of live stock, especially where a great many are kept, while he has to have water and fuel, he does not complain when you work him if the thermometer is 105 in the shade; neither is he subject to the abuse of the negro driver. The matter of obtaining water for an engine is of importance, but I have successfully overcome any difficulties of this kind on my place by putting down driven wells. We drive a two-inch pipe at various places about the farm, and to these we attach the hose from the steam pump on the engine, and very quickly fill the reservoir. The Huber engine has two very large reserve tanks for water, and also a large coal bunker, which greatly reduces the necessity of stops of any great duration.

We have succeeded in plowing at the rate of two acres per hour on my river low ground, which is by far the



An Hour or Two's Plowing.

hardest soil that we have to plow, and I am convinced that on any land in Virginia, where one of these plowing outfits can travel twenty-five acres a day can be readily turned. In computing the difference between steam and horse power, I estimate that it is more than fifty per cent. in favor of the steam plows, first, because if you want to plow soil as it should be—eight to ten inches deep, you must attach three horses to each plow; this would mean twenty four horses as an offset to the John Deere gang; also eight drivers. When you have eight drivers, you have eight different methods of plowing. You also have eight different men who may shirk their duty, and I am sorry to say I have found that they will if left to their own way. With the steam plow that I have installed we have an engineer, and a fireman and plowman, thus we have saved the employment of six men. Again, I have attached immediately behind the plow a peg tooth harrow, which harrows the ground as it is plowed, thus preventing it from baking, at the same time doing the work of at least eight horses as the harrow is twelve feet wide, so it will be readily seen that

horse power and man power for ploughing land is certainly outclassed financially, and in quality of work.

After the experience that I have had in the use of a Huber engine, I feel as though it would be impossible for a man to successfully carry on a large plantation without one. I believe they are as good constructed a machine as I ever saw of any kind. Aside from doing wonderful work as a plow engine, we have succeeded in running a large ten-roll shredder and husker, made several miles of road on my farm, and two men with the engine can do more grubbing up of trees in one day than twenty men could do in a week, and I feel sure that I made no mistake when I fell into the hands of the Watt Plow Co., to supply me with this outfit; neither would I be without it for twice what it cost.

GEORGE P. FINNEGAN.

"Wilton," Henrico Co., Va.

THE NOMINATION OF A COMMISSIONER OF AGRICULTURE.

Editor Southern Planter:

On August 5th, the voters of Virginia will be called upon at a primary election to choose a Democratic candidate for the position of Commissioner of Agriculture and Immigration. The judicious selection of such an official appeals with especial interest to the farmers of Virginia. The administration of the duties of this office should be along lines of agricultural development of the State. The funds which support the Department are derived from a tax of fifteen cents per ton on fertilizer, which tax comes directly from the pocket of every farmer who uses fertilizer.

I see from the public press that two candidates are offering for this position—the present incumbent, Hon. G. W. Koiner, and Hon. J. Thompson Brown, of Bedford county. Which of these gentlemen should the voters choose?

Mr. Koiner has held this office for ten years, hence has a record behind him. Does this record commend him for re-election, and upon what specifications? I gather from Mr. Koiner's publications in the press that he claims to have done great service for the farmers, through his immigration work; through Farmers' Institutes; through his execution of the fertilizer law, and in disseminating useful information through fertilizer bulletins, and through his annual report. What do the records and Board Minutes show? I claim that they show that except for his annual report, none of these benefits originated with Mr. Koiner, or came from any action of his. As to immigration the records show that nothing was done along this line prior to 1904, not even did its stationery indicate that immigration work was a duty of the Department. In 1904 the inauguration of immigration work was instigated through the report of a committee of the Board, in which Mr. Koiner had no part or parcel. Subsequently, through the efforts of the Board, an appropriation was received from the Legislature for immigration work. Mr. Koiner, as the executive officer of the Board was first sent to Europe in 1906, to execute this work. As to the efficiency of his work, the character of the people he brought over speaks for itself. Let the farmers who have tried this splendid (?) help speak up. As a matter of fact, a large majority of those immigrants were utterly worth-

less, being tramps and bums, only a few of them remaining on the farm longer than a few weeks. I have personal knowledge of a dozen of those located on the farm, not one of them is now in farm service. Mr. Koiner's report of this immigration work has been greatly magnified. His report for 1907 claims that through his effort "more than 2,000 laborers and domestics came to Virginia during the last year." As a matter of fact, the records show he paid agents in Europe \$5.00 per head commission on all laborers sent over, and \$10.00 per head on all settlers. As the appropriation was only \$10,000 for immigration work to cover two years, the claim that 2,000 were sent over in one year is manifestly absurd. Those who have endeavored to secure farm help through Mr. Koiner's office know that relief from this source has been an absolute failure. As to Farmers' Institute works: The Minutes show this was formulated by a committee of the Board. The work along this line for many years, until the present law went into operation a year since, was conducted by the members of the Board, largely by using the professors of the Virginia Polytechnic Institute as lecturers, free of charge, except for traveling expenses. The Commissioners seldom attended, and had nothing to do with them.

As to the execution of the fertilizer law, the Board, as the law until a year ago required, made all the rules and regulations for same, the Commissioner acting under its direction as executive, and as the records will show, out of more than 200 violations of law reported, he only had two or three prosecutions? The fertilizer bulletins are compiled by the chemist, not by the Commissioner. The Commissioner is entitled to the entire credit for his annual report, for which the farmers pay from \$4,000 to \$5,000 each year, but a perusal of the reports will show that not more than about two pages in each report is the work of the Commissioner, and this is a bare statement of commonplace facts pertaining to the work of the office. All the rest of the report in each year is made up of clippings from agricultural journals, or articles contributed by agricultural writers. We look in vain to these reports for any suggestions or advice to advance the agricultural interests of the State from the Commissioner. The present law, giving the Commissioner almost absolute control, went into effect in April, 1908. What progress has the Department made since then? I know of nothing worthy of comment save that in an examination of the Commissioner's financial accounts in January last the Auditing Committee officially reported to the Board a deficit of about \$4,000, the expenditures and outstanding obligations exceeding the receipts to that extent. There has been no examination of the accounts since then, as the Commissioner failed to submit his accounts for examination at the meeting of the Board in April last, and had the next meeting of the Board fixed for October, when the primary will be over. This is the first time in the ten years of Mr. Koiner's administration, and I believe in whole life of the Board of Agriculture, when there has not been a midsummer meeting of the Board for the examination of accounts and other business.

Instead of co-operating and cultivating friendly relations with other agricultural enterprises in the State, for the general good, Mr. Koiner's relations with none of

these is cordial. I refer in this matter to his relations with the Virginia Polytechnic Institute, the State Farmers' Institute, the Richmond State Fair Association, the Horticultural Society, the Norfolk Truck Experiment Station, the Appomattox Station, the Sandy Demonstration Farm Work, and The Southern Planter.

The above relates to omissions of duty only. Now, as to sins of commission. I will refer at this time to one only. In November, 1906, Mr. Koiner obtained the appointment of United States statistician for Virginia at a salary of \$600 a year. The Board having learned of this, at its next meeting in January, 1907, asked a ruling from the Attorney General as to the legality of the Commissioner holding this office. General Anderson's ruling was that a Virginia State officer could not at the same time hold a Federal office, and that the office of Commissioner of Agriculture of Virginia was vacant from the moment Mr. Koiner accepted Federal office. Mr. Koiner stated to the Board that he had no idea he was violating the law, and wired to Washington his resignation of the Federal office. The Board still being in session, on Mr. Koiner's statement that he had a reply accepting his resignation, and that he had innocently violated the law, re-elected him Commissioner. Next day, however, Mr. Koiner hastened to Washington, and got his daughter appointed statistician. He returned to Richmond, and wrote to several parties—two of such letters being now in evidence—that his son had been appointed statistician, but that he Mr. Koiner, was doing the work. The work, in fact was not done by Mr. Koiner, but by the clerks of the Department, employed on salaries by the State of Virginia, in an office of the Department, during office hours, Mr. Koiner receiving a salary of \$50.00 a month for same from the United States Government.

After Mr. Koiner had been informed by the Attorney General he had violated the law, and after the Board, acting in good faith, on his plea of innocence, had re-elected him to an office he had forfeited, he simply had his daughter's name substituted for his own as a dummy on the records at Washington, continued having the State's clerks do the work, and continued putting \$50.00 a month into his pocket, or that of his family. The above statement can be substantiated by the records and other unimpeachable evidence. I have been on the Board of Agriculture ever since Mr. Koiner became Commissioner in 1899, until the 1st of March, 1909, when my commission expired. I know whereof I speak. During the early years of Mr. Koiner's administration the Board having confidence in him, gave him loyal support. For the sake of harmony later it temporized with him and tolerated his methods longer than it should have done; finally, it became evident that the only way to get along with such an executive was to hold a tight rein over him. The Board, in July, 1907, reorganized the Department, giving reasons through the press for doing so. The Commissioner charged assumption of authority on the part of the Board. That body, at its October meeting, 1907, appointed a committee to look into the matter. That committee, through its Chairman, Dr. P. B. Barringer, reported a resolution, asking the Legislature to investigate the record of the Board and the work of the Commissioner.

(Continued on Page 612.)

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WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. Rejected matter will be returned on receipt of postage.

No anonymous communications or enquiries will receive attention. Address THE SOUTHERN PLANTER, RICHMOND, VA.

ENTERED AT THE POST-OFFICE AT RICHMOND, VA., AS SECOND-CLASS MAIL MATTER.

PUBLISHERS' NOTES.
TO ADVERTISERS.

Please bear in mind that we must have all copy or instructions for advertisements by the 25th of each month without fail. Every month we are compelled to omit advertising in large volumes for the simple reason that copy does not reach us in time.

A NEAT BINDER.

If you will send thirty cents to our business office, we will send you a neat binder made of substantial Bristol board, in which you can preserve an entire volume of the Southern Planter. Many of our readers find this a useful device, as they always save their copies for reference.

A FARMER'S ACCOUNT BOOK.

We can furnish a very simple and complete account book for farmers' use for 50 cents, postpaid; or we will give a copy to every subscriber who will remit us \$1.00 for a three-year subscription and 10 cents to cover mailing.

This book contains records for labor, planting, buying, selling, breeding and inventory and will last the average farmer for two or three year.

In the back of the book are gestation tables, rules for computing contents of corn cribs, hay stacks, etc.

WITH THE ADVERTISERS.

The E. W. Ross Co. is advertising a splendid ensilage cutter in this issue.

Attention is invited to the advertisement of the Star Mfg. Co., to be found in another column.

Dederick's well-known Hay Press is attractively advertised on another page.

The Waterloo Gas Engine Co. has a prominent advertisement on another page. H. L. Smith, Petersburg, is local agent for this concern.

The Collins Plow Co. is advertising its well-known Eli Baling Press this month.

Attention is invited to the advertisement of Cooper & Nephews elsewhere in this issue.

The Crestline Mfg. Co. has a couple of advertisements in this issue to which attention is invited.

The Meadow Farm Dairy is advertising Holstein cattle this month.

Minor's Fluid, a liquid sheep dip, is advertised in another column.

Berkshire hogs of excellent breeding are offered by the Piedmont General Office.

The Angle Lamp is attractively advertised in this issue by John H. Rose & Co.

Some excellent bargains are offered in registered live stock by John F. Lewis, Lynnwood, Va.

Berkshire hogs are offered by John A. Muncaster.

LOUDOUN FARM SOLD.

Mrs. Phoebe Cole, of Washington, D. C., has just purchased the S. A. Arthur farm, near Purcellville, through A. H. Buell, of Herndon. This place is considered one of the most desirable in Loudoun county. Price, \$12,000.

PLANT WOOD'S SEEDS

For Superior Crops.

Soja Beans.

The most nutritious forage and feed crop that can be grown, containing, to a greater extent than other crops, protein, or fat-forming qualities.

They are also one of the largest-yielding and surest of summer crops, succeeding and standing dry, hot weather to a remarkable extent, also succeeding better on light sandy land than any similar crop. All of our

Soja Beans and Cow Peas

are choice, re-cleaned stocks, superior both in cleanness and quality, and of tested germination.

Write for prices and "Wood's Crop Special" giving timely information about Seasonable Farm Seeds.

T. W. WOOD & SONS,
Seedsman, - Richmond, Va.

We are headquarters for
All Farm Seeds,
Millets, Sorghums, Ensilage Corn,
Late Seed Potatoes, Crimson
Clover, etc.

RAFFIA

Red Star and Arrow Brands

Bale lots of 225 lbs. each.

We are direct importers—stock always on hand. Write for special prices, stating quantity required. Sample sent on request.

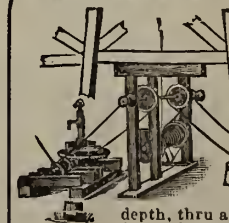
McHUTCHISON & COMPANY,

Raffia Importers,

17 Murray St.,

New York.

Unlimited Wealth May Be Yours



below the surface of the ground in deposits of coal, oil, gas, ore or metals. The surest and most economical way to determine what the ground contains is by means of the "American" Coring Machine which will remove a core of any size, any depth, thru any kind of shale or rock formation cheaper than by any other method. Our new catalog describes every method of well sinking and mineral prospecting—FREE.

The American Well Works, Office & Works, Aurora, Ill.
First Nat. Bank Bldg., Chicago.
Snyder Pump Company, Richmond, Virginia.

BANK OF RICHMOND,
Main and Ninth Streets.

CAPITAL, \$1,000,000 00.

SURPLUS, \$475,000 00.

Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. interest Allowed in Savings Department.

Compounded Semi-Annually.

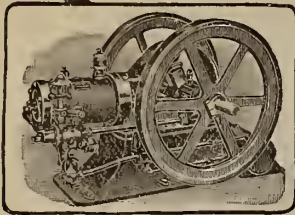
CHEAPER FARM POWER

For the price of a good horse you can buy an ideal farm engine that will operate Feed Grinder, Cutter, Saw, Pump, Churn, Separator, Washing Machine and other machines to which belt can be attached. It eats no corn, does not get sick or die, can be moved whenever you wish, is always ready and eager to work.

A Star Gasoline Engine will cut out drudgery, save the tired back, and make life a pleasure. Made with standard tank, pump cooled, or hopper cooled.

Send for prices and illustrations and learn why the "Star" is a money-maker and time saver.

The Star Manufacturing Co.,
Box 516, New Lexington, Ohio



The STAR
A Heavy,
Standard
High-Grade
Gasoline
Engine

SAW MILLS

Whether you want a little mill for custom sawing or one that will cut 50,000 ft. of lumber a day, we have it for you in the Knight Mills of modern build and construction. We make eight sizes of mills (portable and stationary) and a line of saw-mill appliances and machinery that is abreast of the times. It will pay you to know about Knight Head Blocks, Set Works, Swing Saws, Single Saw and Gang Edgers, Self Feed Rip Saws, etc. Write for free Catalog to tell you of the up-to-date things in our line. Send for it today.



THE KNIGHT MFG. CO.
1934 S. Market St.
Canton, Ohio

HARNESS BY MAIL

You can buy custom-made, oak-tanned harness direct from our factory, at wholesale prices. Save the dealers' profits. All our harness guaranteed. Money back if not satisfactory. Write for illustrated Catalogue O. and price list. Every farmer should have this booklet.

THE KING HARNESS COMPANY,
16 Lake St. Owego, Tioga Co., N. Y.

BOILERS AND ENGINES.

16-horse Traction, \$300; 12-horse, \$250; 10-horse, \$200; boilers and engines from 2 to 100 horse, all styles and sizes, new and second hand; 4-horse gasoline engine, \$75; 8-horse, \$150; 12-horse, \$200; Saw-MILL, \$135. boilers, tanks and smoke-stacks.

CASEY BOILER WORKS,
Springfield, Ohio.

A COW PEA THRESHER

Invented at last! This is not a "pea huller" but a machine that will thresh any variety of cowpeas from the mown vines not breaking over 1 or 2 per cent of the grain. Write for catalog.

KOGER PEA & BEAN THRESHER CO.
Morristown, Tenn.

We Will Give A RURAL MAIL BOX.

The best and handsomest Galvanized Steel Rural Mail Box made, to the first person sending address of party passing for petitions for new Rural Route. Write today. KENTUCKY STAMPING CO., DEPT. 85 LOUISVILLE, KY

(Continued from page 610.) sioner's office. This resolution was adopted unanimously by the Board, with only one dissenting vote. If the Commissioners' record had been clean he had nothing to fear from an investigation, yet he and his friends prevented it, and the Board was not given a hearing. No investigation was had.

Do the people think Mr. Koiner is entitled to re-election? Let them answer at the polls at the primary election.

Now, then, who is the other aspirant? He is a man who is widely known throughout Virginia; has been a farmer all of his life; has held with conspicuous ability positions of trust and confidence; has served in the Legislature; was a member of the late Constitutional Convention; served for many years as Rector of the Board of Visitors of V. P. I., acting for a time as President of that Institution. More than all of this, he is that noblest work of God—a honest man!

J. H. C. BEVERLEY.

Chance, Va.

(Continued from Page 602.) indirectly, the quality of the product materially. Is not the high quality of the razor-back's hams due more to his very active life and his feed than to the fact that he is a razor-back breed? But, as Professor Massey says, a Berkshire could not lead this life or feed himself thus.

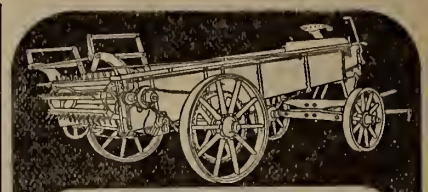
If the "pine-rooter" carries a subsoiler the Tamworth certainly has a steam shovel, and plenty of hog power behind to drive it. The Tamworth has as much pork in his body at the same age as any other breed (more of the valuable cuts) and under his body, legs that have the length and bone and muscle to carry it well, and far—and fast. He is active, quick, alert, of great lung and heart. He combines all the good qualities of the razor-back with all the good of the lard hog; and is neither.

The point which I wish to make is: That to keep up the quality of hams for which Virginia is justly noted and to gain a reputation for breakfast bacon equal to that for hams we cannot confine our hogs on a small area and feed only a narrow, concentrated ration. We must allow them a fair range, feed a better balanced and not so concentrated a ration as corn only, and, if necessary, compel a reasonable amount of exercise, even during the fattening period. These conditions being necessary for the production of the highest quality of pork, can any one show a better breed for the purpose than the Tamworth?

S. G. S.

Gloucester Co., Va.

Editor Southern Planter:—I saw such a pretty sight the other day that I must tell you about it. I had six hens and ninety little Reds in a shady, grassy run. Reds wear their



DOUBLE VALUE

from your manure. Cover two acres to every one by hand, spreading with better results and do it as fast as 10 men with forks.

...MILLER...

Manure Spreader and Pulverizer

is the only low down spreader, easy to load. Handles all manure, pulverizes thoroughly, spreads evenly, thick or thin, as wanted. Right width to straddle corn rows. Solid bottom box, scraped clean every load. Automatic drag return, safety end-gate, double drive. Send for catalog, and know every reason why you should own a Miller modern spreader.

Newark Machine Co., Newark, O

The "MONARCH" STEEL STUMP PULLER.



The best and simplest on earth. No cost to you, except freight, until it is set up and giving satisfaction. Nine years experience in this business. Write for catalogue and prices.

Route 1, Grottoes, Va.
JOS. W. RITCHIE, Agent.

HARVEY BOLSTER SPRINGS



Soon save their cost. Make every wagon a spring wagon, therefore fruit, vegetables, eggs, etc., bring more money. Ask for special proposition. Harvey Spring Co., 733 17th St., Racine, Wis.

Free Trial To You



PILLING are "Easy to Use," no veterinary experience necessary. A few dollars invested in our goods will save hundreds of dollars. Pilling Milk Fever Outfit for Air treatment recommended by U. S. Agricultural Dept., price \$3.00. Silver Milk Tubes 50¢; Teat Slitter \$1.50; Garget Outfit \$4.00; Capon Tools, Horse and Cattle Syringes, all sent prepaid with full directions. Write for free Booklet. 2A G. P. PILLING & SON CO., Arch St., Philadelphia, Pa.



ARTIFICIAL MARE IMPREGNATORS For getting from 1 to 6 mares in foal from one service of a stallion, \$3.50 to \$6.00. Safety Impregnating Outfit for barren and irregular breeders, \$7.50. Serving Hobbles, Stallion Bridles, Shields, Supports, Service Books, etc., prepaid and guaranteed. Stallion Goods Catalog FREE. CRITTENDEN & CO. Dept. 54 Cleveland, Ohio.

Do You Ship Peaches?

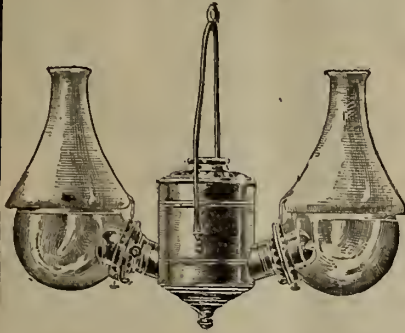
If so—don't fail to send for our catalogue and prices for 1909. SOUTH SIDE MFG. CO., Petersburg, Va.

SEE

"Rose for Ranges"

The Famous Shadowless
Angle Lamp,

Perfection in Oil Lighting.



No. 203, as illustrated \$5.70.

The ANGLE LAMP gives more light, consuming less oil, than any lamp on the market.

Descriptive catalogue on application.

JOHN H. ROSE & CO.,
Everything in Housefurnishing
Goods,
Richmond, Va.

chicks a little soon and go to laying again. What I saw was a beautiful dark red hen sitting on a nest she had made under a raspberry vine, and fifteen six weeks old baby chicks waiting. She laid two weeks before she left the chicks.

A lady wrote me to-day: "I am thoroughly in love with the Reds. My eggs are hatching fine. Five hens have sixty-seven chicks. I hatched seventy-two out of seventy-five, and how they grow!"

(Miss) LOUISE V. SPENCER.
May 17, 1909.

Gloucester Co., Va.
Editor Southern Planter:—I have just read the May number of the Southern Planter with much pleasure and profit. Besides the practical benefit, I desire to express appreciation of the fine article on the Battle of New Market, written by "Mary Washington." She quotes some beautiful verses from a Threnody by Mr. Gordon, of Staunton, on this subject. I hope you will be so kind as to get her to publish the rest of this very fine poem, new to me, and possibly to many of your readers.

MRS. FIELDING L. TAYLOR.
May 17, 1909.

GUERNSEY CATTLE NOTES.

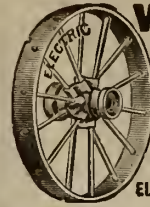
The annual meeting of the American Guernsey Cattle Club was recently held in New York, and was the largest attended and most enthusiastic ever held.

The report of the Secretary and Treasurer showed that the year had been the most prosperous in the Club's history. The income during the year was over \$20,000—more than a sixfold increase in the last fifteen years that Mr. Caldwell has been Secretary.

Officers elected were: President, James M. Codman, Brooklyn, Mass.; Vice-Presidents, Dr. F. W. Brophy, Chicago, Ill.; E. F. Gill, Haddonfield, N. J.

Executive Committee: The President, Secretary and Treasurer, and James Logan Fisher, Philadelphia; Howard B. Tuttle, Naugatuck, Conn.; Robert Scoville, New York; S. M. Shoemaker, Eccleston, Md.; W. D. Hoard, Ft. Atkinson, Wis.; Charles L. Hill, Rosendale, Wis.; Ezra Michener, Michener, Pa.

A most important step was taken in the registration of Guernseys in the Herd Register, in requiring that all must be registered before they are six months old, unless a birth report has been filed with the Secretary within thirty days after birth of calf, when they may be registered any time before they are three years old. If a birth report is not filed, or the animals registered before six months old, they can only be registered by the approval of the Executive Committee and the payment of a fee of \$10.



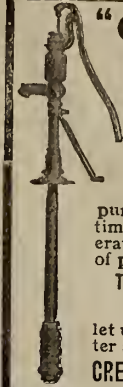
WAGON SENSE

Don't break your back and kill your horses with a high wheel wagon. For comfort's sake get an

Electric Handy Wagon.

It will save you time and money. A set of Electric Steel Wheels will make your old wagon new at small cost. Write for catalogue. It is free.

ELECTRIC WHEEL CO., Box 146 Quincy, Ill.



"CRESTLINE" IRON PUMPS

Have you a well 60 feet or less in depth from which you must have a quantity of water quickly for your stock?

Our Fig. 135—No. 8 is a fast pumper—a pump that will last a lifetime with a little care. Easy to operate. We make hundreds of styles of pumps. If you need a

Three Way Pump, Force Pump, Spray Pump, Tank Pump, Sink or Hose

let us tell you why our goods are better and who sells them.

CRESTLINE MFG. CO., CRESTLINE, O.

For an estimate on cost of our Fig. 135, No. 8 Fast Pumper, please fill out and send us coupon below:

How deep is well or cistern?

How far is water from top?

What is diameter of well?

How much water needed per hour?

Can Your Surplus Fruits and Vegetables Big Profits

Don't let your surplus fruits and vegetables go to waste. Can them, the same as a large canning factory. There's always a market for canned goods, and for a small investment you can buy a

STAHL

Canning Outfit

and build up a big, profitable business. All sizes; fully guaranteed. Write for catalogue.

F. S. STAHL MFG. CO.,
Box 357-D, Quincy, Ill.

Agents Wanted

Monarch Hydraulic Cider Press

Great strength and capacity; all sizes; also gasoline engines, steam engines, sawmills, threshers. Catalog free.

Monarch Machinery Co., 310 Cortland Bldg., New York

PATENTS

SECURED OR F.E. RETURNED

Send sketch for free report as to patentability. Guide Book and What to Invent, with valuable list of inventions wanted sent free. One million dollars offered for one invention \$16,000 for others. Patents secured by us advertised free in World's Progress Sample free.

EVANS & WILKINS,
848 F Street, Washington, D. C.

WHEELS, FREIGHT \$8.75

for 4 Suggy Wheels, Steel Tires. With Rubber Tires, \$15.00. 1 mfg. wheels 1/2 to 4 in. tread. Suggy Tops \$5.50. Shafts \$2.00. Top Buggies \$3; Harness, \$5. Learn how to buy drugg. Catalogue Free. Repair Wheels, \$5.50. Wagon Umbrella FREE. W. V. BOOB, Cincinnati, O.

BUY DIRECT FROM FACTORY

saving all expenses and profits of the dealer.

ELKHART RUGGIES AND HARNESS. have been sold direct from our factory to the user for thirty-six years. We are **The Largest Manufacturers in the World** selling to the consumer exclusively. Send for free catalogue.

Elkhart Carriage & Harness Mfg. Co., Elkhart, Indiana.

FIX YOUR ROOF

5c Per Square.—We will guarantee to put any old leaky, worn-out, rusty, tin, iron, steel, paper, felt, gravel or shingle roof in perfect condition, and keep it in perfect condition for 5c per square per year.

Roof-Fix The Perfect Roof Preserver, makes old, worn-out roofs new. Satisfaction guaranteed or money refunded. Our free roofing book tells all about it. Write for it today.

The Anderson Manufacturing Co., Dept. 61 Elyria, Ohio

"ROCKFORD"

Rockford Engine Works.
Dept. 35, Rockford, Ill.
The Engine that will please you

Before you contract or buy write for our proposition

None-Nobby-Handy
All Styles 2 to 30 h. p.

"ROCKFORD"

WANTED = Bills to Collect =

In all portions of the United States. No collection, no charge. Agencies wanted everywhere: 25 years' experience. **PALMORE'S COLLECTION AGENCY,** 911 Main St., Richmond, Va.

Please mention the Southern Planter.

BIG BARGAINS IN GASOLENE ENGINES

As a medium of advertising we propose to offer for prompt acceptance only—and to the first who avail themselves of this magnificent offer, the following bargains for cash only.

- One 2½ H. P. Lauson Frost King, Semi-portable on Skids, \$85.
 - One 5 H. P. Lauson Frost King, Semi-portable on Skids, \$180.
 - One 6 H. P. Lauson Portable on Wheels, \$290.
 - One 4 H. P. Brown-Cochran on Skids, \$180.
- Be Quick—Don't Miss a Bargain. First Come, First Served.

STRATTON & BRAGG COMPANY
PETERSBURG, VA.



SILO FILLERS Whirlwind with wind elevators for any power from 4 to 12 H. P. will Cut or Shred green or dry fodder and elevate to any height. Get Free catalogue.

Wilder-Strong Implement Co.
Box 82 Monroe, Michigan.

SILOS

The "PHILADELPHIA," Has the best on earth. Has the longest test and most in use. Continuous opening from top to bottom.


THE ONLY OPENING ROOF MADE. TANK and TOWERS

Ask for prices and new catalogue.
E. F. SCHLICHTER CO.,
10 South Eighteenth St., Philadelphia, Pa.

SILOS

that make and keep real ensilage; that have the utmost strength, convenience, and durability; that are used by the United States Government. Send for free catalogue.

HARDER MFG. COMPANY,
Box 32, Cobleskill, N. Y.



ECONOMY SILO

Air tight but with easily opened doors. Easy to erect. Strong, well-hooped, guaranteed. Book free.

ECONOMY SILO & MFG., CO.,
Box 38 G., Frederick, Maryland.

PLANET JR. FARM and GARDEN TOOLS

make farm work easy and give bigger crops. Free 56-page catalogue for 1909.

S. L. ALLEN & CO.,
Box 1107-X, Philadelphia, Pa.

Five hundred dollars was appropriated for special premiums and representations of the breed at the National Dairy Show, and a like amount for the Alaska-Yukon Exposition. One hundred dollars was appropriated for special prizes at the Iowa State Dairy. The offering of several silver trophies was also announced.

One thousand dollars was set aside for collation of data in connection with the Advance Register work.

All this means much to the advancement and integrity of the Guernsey Register.

The Guernsey breed is seemingly enjoying an era of prosperity which it has justly earned.

At the sale of the Guernsey herd at Grove Farm, Brooklandville, Md., on May 14th, one cow sold for \$775, and two heifer calves sold for \$300 and \$250, respectively. Four yearling heifers brought \$660. Nine mature cows averaged \$303. A seven year old bull sold for \$200. Twenty-four head brought \$4,790, an average of \$199.58.

H. H. C.

May 19, 1909.

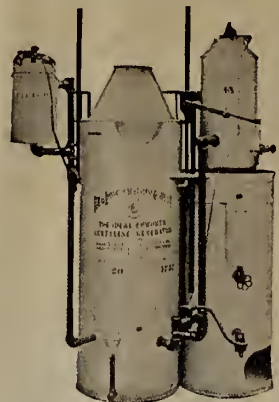
SALE AT COOK FARMS.

The Cook Farms at Lexington, Kentucky, report a splendid sale of both jacks and saddle horses during the month of April.

Among the many recent visitors and purchasers were Thomas F. Ryan, who bought a five year old Kentucky Mammoth jack for his Oak Ridge Farm in Virginia; J. S. Meeks, of Avon, W. Va., a big yearling jack; Mr. Supplee, of Philadelphia, a three year old jack fifteen and a half hands high; E. O. Godwin, of Jefferson City, Tennessee, the four year old imported jack, Silver Fern. Mr. Godwin is one of the largest mule dealers in Tennessee, and he and his neighbors wanted one of the best jacks to be found in the country. J. W. Ramer, of Bethel Springs, Tennessee, a yearling jack of the Dr. Hartman family; A. D. Reynolds, a four year old Catalonian jack and a three year old saddle stallion. Mr. Reynolds is a retired tobacco manufacturer and has 2,300 acres of land near Bristol, Tennessee, where he will breed saddle horses and mules; John P. Mars, of Batesville, Mississippi, the three year old saddle stallion, Red Highland; R. E. Johnson, Sweatnam, Mississippi, the three year old stallion, Cleaquo; John Holmes, Tylertown, Mississippi, a five year old fifteen hand jack; E. L. McCrummen, of Paris, Texas, three two year old jacks and the saddle stallion, Gypsy Prince; R. L. Williams, of Plumersville, Arkansas, and F. O. Butler, of Hinsdale, Illinois, a herd of Tamworth hogs each.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

See That Generator?




Get Good Light For The Price Of Bad.

Be able to tell your blue dress from black. See while you are trying, without straining the eyes. No smoke, no globes to break or lamps to clean, or fall or explode; no danger of killing you while you sleep. Less work per month than one lamp. Costs less than Kerosene, and always ready at all times. We will send you one ready to put up. Write us to-day.

IDEAL EPWORTH ACETYLENE CO.,
620 Elder St., JOHNSTOWN, PA.

DEDERICK'S Baling Presses



The most carefully selected material; the latest improvements; expert workmanship and supervision throughout their making, explain the unapproached superiority of Dederick's Baling Presses.

Famous for their speed and unusual capacity, their neat work and remarkable endurance. Presses for all purposes. Catalog giving full information free.

P. K. DEDERICK'S SONS, 55 TIVOLI ST., ALBANY, N. Y.



Self-Feed Eli Baling 3-Stroke Press

Latest addition to the great "Eli" family. Three strokes with automatic self-feed makes the gang hustle. Built on lines that make horse presses really valuable. Greatest leverage when pressure is hardest. Low Step-over, Full Circle, Block Signals, etc. A little giant in strength. We've always led as hay-press builders—18 different styles, horse and belt powers. All in one catalogue and it's free. Write for it.

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

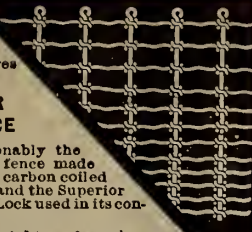
Do You Ship Tomatoes?

If so—send for our catalogue of standard carriers.

SOUTH SIDE MFG. CO.
Petersburg, Va.

Please mention the Southern Planter.


Your stock is kept inside and other stock outside if your pastures are enclosed with



SUPERIOR WIRE FENCE

This is unquestionably the most substantial fence made owing to the high carbon coiled spring steel wire and the Superior Heavy Weight Lock used in its construction.


All styles, weights and spacings. Steel Gates for every purpose.

OUR  **LOCK**

Low Prices Easy Terms
Write for Free catalog.

THE SUPERIOR FENCE CO.
Dept. J, Cleveland, Ohio

\$100 that the 20th CENTURY FARM GATE is the most simple and practical farm gate ever produced. Do you want to make money?



H. M. MYERS, Lodi, Ohio.
Sole owner Pats. U. S. and Canada.

ALWAYS IN ORDER

MANLOVE Automatic Gate



Saves time, adds to value, safety, beauty and pleasure of home.

MANLOVE GATE CO., 272 E. Huron St., CHICAGO, ILLS.

MONTROSS METAL SHINGLES

Have been made for over twenty years. All users satisfied. No experiment. An ideal roofing. Fire, lightning and stormproof. Easily laid. Light. Handsome. Will not scale or crack. Last a lifetime. Inexpensive. Write for catalogue.



OCTAGON SHINGLE

MONTROSS METAL SHINGLE CO., 113 Erie St., Camden, N. J.

COOPER'S TREE SPRAYS

V1-For Trees in Dormant state
V2-For Summer Use
V3-For Leaf-eating Insects

Effective in the highest degree. Are highly concentrated. Absolutely uniform in strength. Mix instantly with water. One part to 100 parts water. No sediment to clog nozzles. Harmless to the trees and user. Non-poisonous to animals grazing under trees. Invigorates and cleanses the trees. Write for pamphlet of convincing testimony.

Wm. Cooper & Nephews, 177 Illinois St., Chicago

KILL SAN JOSE SCALE WITH GOOD'S CAUSTIC POT-ASH WHALE OIL SOAP NO. 3

James Good, 959 N. Front Street, Philadelphia.

Tell the advertiser where you saw his advertisement.

THE TERMS OF THE CORN PRIZE CONTEST.

In suggesting the raising, through general subscription, of a great cash corn prize, The Times-Dispatch was moved by a desire to do something which would most directly and most sharply stimulate the endeavors of our Virginia farmers. In naming now the terms upon which the award of this prize money shall be made, it is actuated by the same desire. For various reasons it has seemed best not to make the yield per acre the basis of competition, and to focus the test wholly upon the grade of the product. Nor has it seemed best to place any conditions whatever upon the amount of acreage under cultivation or to make any other restrictions as to the manner in which the prize corn shall be raised.

The allotment of this prize money in such a way as to give it the greatest possible practical value involved technical points, upon which The Times-Dispatch naturally hesitated to pass. The paper has therefore laid the matter before those more competent to pass upon it. After due consultation with Henry Fairfax, of Loudoun county; T. O. Sandy, former president of the Farmers' Institute, and others of wide agricultural experience, we now beg to announce the following terms in governance of the prize awards:

1. The competition is free and open to everybody, the sole condition being that the specimens of corn submitted shall be grown in Virginia.
2. All the money received from all subscriptions up to the time of the awards shall constitute the Prize Fund.
3. The awards shall be made, by expert judges, during the annual State Fair next October.
4. The Prize Fund shall be divided into six separate prizes, each of which shall be a first prize in a distinct group. There shall be no second and third prizes.
5. The division shall be on the following basis: (a) Two-thirds of the Prize Fund shall be awarded for white corn raised in Virginia this summer; one-third of the Prize Fund shall be awarded for yellow corn raised in Virginia this summer. (b) Of the total amount awarded each kind of corn, one-third shall go to the best single ear, one-third to the best collection of ten ears, and one-third to the best collection of twenty ears.
6. Put in another way: Two-ninths of the entire Prize Fund shall be awarded to the farmer offering the best single ear of white corn, two-ninths to the farmer offering the best ten ears of white corn, two-ninths to the farmer offering the best twenty ears of white corn. One-ninth of the entire Prize Fund shall be awarded to the farmer offering the

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Seldom do you purchase a sprayer. When you do buy see that you purchase quality and merit as well as appearance. We put the material into the pump. Heavy Brass and Iron and build it so anyone can repair it. Spraying is a necessity. So is a good pump a necessity. Ask about our "Sunshine" Pump. Free circular and price to anyone interested. Address

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Distributes Insecticides In dust form
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The Champion and Little Giant dust potatoes and tobacco as fast as you walk. These are the well-known Tobacco Dusting Machines THE BEETLE Potato Duster (Horse Power) Dusts Four Rows.

Our illustrated Spray Calendar, giving concise information regarding Dusters and address of nearest dealer, mailed on request.

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kills Prairie Dogs, Woodchucks, Gophers and Grain Insects. "The wheels of the Gods grind slow, but exceedingly small." So the weevil, but you can stop their grind with

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FARM USES

of CARBOLINEUM are completely explained in BULLETIN 26 covering Kinds and Habits of Lice—The care of Silos, Preservative treatment of Shingles and Fence posts and the care of Fruit and Shade Trees. Mailed free upon request.

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best single ear of yellow corn, one-ninth to the farmer offering the best ten ears of yellow corn, one-ninth to the farmer offering the best twenty ears of yellow corn. The prizes for white ears are in each case double those for yellow ears.

7. In addition there will be a special sweepstakes prize for the best collection of one, ten and twenty ears, white or yellow. This prize shall consist of all subscriptions to the fund not in the form of cash. At present this prize consists of one high-grade corn-binder, offered by the International Harvester Company, and valued at \$125.

8. The winning of one prize does not disqualify a competitor from further winnings. One farmer may win two or three or all seven of the prizes to be awarded.

The ambition of this paper has been to see a Prize Fund raised large enough to command the immediate and lively interest of every farmer in Virginia. The larger the visible reward the keener the incentive to win it. The same objective has made it seem unwise to split the total fund up into a large number of minor prizes. It is our earnest desire that general and liberal subscriptions may run this fund well up into the thousands. The purpose of it, it seems to us, fully entitles it to widespread support. For purposes of illustration only, let us suppose that the fund amounted to just \$900. The farmer who produced the best ear of white corn would get a prize of \$200 for his trouble. If he could also produce the best collection of ten white ears, he would get \$200 more. If he could still further produce the best collection of twenty white ears, he would annex still another \$200. By proving himself, in addition, the best producer of high-grade yellow corn, he could take in the three \$100 prizes in this division, making his total winnings \$900, to say nothing of his chance at the sweepstakes. On the other hand, the prizes in substantial blocks, may be distributed among seven different farmers.

A study of these terms will show them, we think, to be both fair and intelligently calculated to accomplish the ends in view. But the complete triumph of this plan depends rather less on the terms than on the size of the inducement toward unusual exertion offered to our farmers. This is the reason why it rests upon the friends of the farmer throughout the State, upon public-spirited citizens and disinterested editors, to say how completely the corn-prize movement shall be a success.—Times-Dispatch.

VIRGINIA STATE FAIR — "THE FIRST WEEK IN OCTOBER.

Editor Southern Planter.—Matters pertaining to the several departments of the Virginia State Fair, to be held "the first week in October"—October 4-

Roofing

Before deciding on *any* roofing, for *any* purpose, send for this free book which will give you the inside facts about all roofings—shingle, tin, tar, iron—and prepared, or "ready" roofings.

This book is fair, frank, comprehensive. It tells all about the cost of each kind of roofing. It tells the advantages and the disadvantages of each. It is a veritable gold mine of roofing information.

The reason we send it free is because it tells too, about Ruberoid roofing.

Since Ruberoid roofing was invented nearly twenty years ago, there have sprung up more than 300 substitutes.

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Ruberoid roofing is sun proof, rain proof, snow proof, cold proof, weather proof. It resists acids, gases and fumes.

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It is so nearly fireproof that if you drop live coals on a Ruberoid roof it will not burn.

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- 1—8 H. P. Gelser Engine and Boiler on wheels in first-class condition.
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- 1—20 H. P. Gelser Engine and Boiler on wheels and 1 No. 1 Gelser Saw Mill with 50-inch saw and all belts. This outfit has only been in use for about 18 months and is in first-class condition.
- 1—4-inch, 4-sided Molder.
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We invite your correspondence and will gladly give any information desired.

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Richmond, Va.

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Send postal for copy of a unique booklet of general interest. JOHNSTON, HOLLOWAY & CO., 405 COMMERCE STREET, PHILADELPHIA.

9, inclusive—are now assuming definite form, and already plans are being drafted, and arrangements made to care for largely increased exhibits.

The purpose and aim of the Association being to promote and develop the resources of the Old Dominion, every effort is being made to make the classification in the departments attractive to our farmers and our efforts have met with the active co-operation of both local organizations and friends as well as Associations outside of the State. The specials offered are most attractive—that offered for "Corn, for which we are indebted to Mr. John Stewart Bryan, (who since the inception of the Fair has been unstinting in his efforts to place the Fair on the high plane we are endeavoring to reach) and other public spirited citizens and corporations, now exceeds \$600, exclusive of the \$125 Corn Binder which the International Harvester Company (in addition to \$100 cash) also offers. This Corn Special, classification of which is published in the folder of the Farm Products Department, which we will gladly mail to all sending their address, provides the largest prizes for corn ever hung up in the east. In this connection, the Virginia State Fair Association desires it expressly understood that no part of this Special will be deducted by it, and that every dollar awarded will be turned over to winning exhibitors.

Among the other special prizes which will be offered at the Fair may be mentioned that of "the Tobacco Trade of Richmond" which offers \$75 as a sweepstakes in the Tobacco section. The Live Stock Associations have been very liberal in offering specials, and some include gold and silver cups of the Percheron Society of America, the Percheron Registry Co., the American Hackney Horse Society, the American Saddle Horse Breeders' Association, the American Angora Goat Breeders' Association, the American Berkshire Assn., and cash prizes of \$300 by American Short Horn Breeders' Assn, \$300 by Red Polled Cattle Club of America (\$100 for milkers); \$200 by American Aberdeen Angus Assn.; \$200 by American Hereford Cattle Breeders' Assn.; and others to be enumerated later.

We desire to take this opportunity of assuring your readers, and all others, that we desire exhibits from one and all and urge upon each to send the best of the products of his farm, both animal and agricultural,—the best of care will be taken to ensure satisfactory results—come to the Fair and reap the harvest of gain and information to be derived from comparing his productions with those of agriculturalists and breeders of other communities. Everyone may rest assured of spending "the first week in October" at the Virginia State Fair, and going home, enter-



A harness oiled as it should be needs very few repairs.

EUREKA Harness Oil

Not only preserves and blackens the leather in a harness; it also keeps life in the stitching. Use "Eureka" Oil and see how elastic harness thread becomes and how well it resists wear. Ask your dealer for Eureka Harness Oil.

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A strong, conservative, well-managed institution. A safe depository for all classes of customers.

Capital	\$1,000,000.00
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A Savings Department for the Thrifty.

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Insure Your Buildings, Live Stock, Produce, Etc., in Virginia Division,
FARMERS' MUTUAL BENEFIT ASSOCIATION.

Best security. Property insured \$500,000. Average cost per \$1,000 per year, \$5.00. Territory limited to counties of Chesterfield, Amelia, Powhatan, Nottoway, Dinwiddie, Prince George, Surry, Charles City, New Kent and James City. For plan and membership write to

CHARLES N. FRIEND, General Agent,
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Prof. W. F. Massey's latest and best book is now on sale. It retails for \$1.50, and is worth it. We shall be very pleased to send you a copy at above price and will include a year's subscription to The Southern Planter. Remember, we deliver the book and give you a whole year's subscription for the price of the book, \$1.50.

SOUTHERN PLANTER, Richmond, Va.



FENCE STRONGEST MADE. Built strong chicken-tight Sold to the user at Wholesale Prices. We Pay Freight. Catalogue free. COILED SPRING FENCE CO., Box 53 Winchester, Indiana.

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**PLAIN ROCK
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BAGS OR BULK

SPECIAL FINE HYDRATED LIME
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ROCK PHOSPHATE

The great soil builder; very finely ground; higher in phosphoric acid than bone and at one-third the cost. Unequaled for mixing with barnyard manure or direct application. For prices write **FARMERS' UNION PHOSPHATE CO.,** Mills in Tenn. Birmingham, Ala.

THE FAMOUS IRON PEA

Matures pods in 60 days. Will not shed foliage which, when cut, makes the very best hay. Have planted them 20 years and never had a complete failure. Plant any time. Sure to be a stand when it rains if ground is warm. Bushel, \$2; pound 25c. postpaid.
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VIRGINIA HUCK BASKETS.

The only safe package for Huckleberries. Send for catalogues and prices.

SOUTH SIDE MFG. CO.,
Petersburg, Va.

Tell the advertiser where you saw his advertisement.

tained instructed and invigorated and in better shape to take up and solve the problem of increased production and the restoration and adaptation of the lands of our beloved Old Dominion.

MARK R. LLOYD,

Richmond, Va. Gen'l Manager.

We would add to this an invitation to all our readers to look up the advertisements in this and the last two issues of The Planter, which give particulars of the premiums offered for farm and garden products, and at once arrange to grow crops to compete for these premiums and select the live stock to be entered for competition. We are most anxious that the farm and garden products of the State should be one of the great features of the Fair, and thus advertise the possibilities of our land and lead to an influx of settlers. In the live stock department we can compete with the best in the country and our breeders should see to it that this is done and thus put on record that the State is now a live stock State with all that this means for its increasing prosperity.—Ed.

HORSE NOTES.

By W. J. Carter, ("Broad Rock")

Affairs pertaining to the Virginia State Fair Association are progressing most favorably and the management looks forward to the largest and finest exhibit of Virginia's agricultural, mineral and mechanical products ever seen during the week of October 4-9, when the annual fair and race meeting takes place. Purses and premiums in most of the departments have been enlarged and new classes added, while the exhibit of live stock in particular will likely surpass even the splendid exhibits that have been such pronounced features since our State Fair was opened in 1906. It is the earnest wish of President Fairfax and his associates on the Board that it be regarded as a State Fair in every particular and that suggestions and generous support may be received from every section of Virginia. The speed program will be made an attractive one and will doubtless appeal to many, as while racing is not to be taken as the most important feature of the Fair, still it is one of those ever looked forward to with relish and that furnishes a lot of sport and diversion to those interested in high-bred horses. The card for this fall will be made up of early closing purses of \$1,000 each for the 2:16 and 2:24 classes, trotting, and the 2:14 and 2:20 classes pacing, while an attractive list of open classes will be announced later. The runners will also be well taken care of and purses of sufficient size offered to attract some of the best steeplechase horses and performers on the flat to be seen on the prominent race tracks of the country. The race committee is made up of J. T. Anderson, chairman;

Ripley's Fly Remover

instantly removes all flies, mosquitoes, lice and other insects from cattle, horses and other animals sprayed with it. It is healing to any sore. Animals rest easy and feed quietly all day. Cows give $\frac{1}{2}$ more milk, which is a big saving. 1 gal. will protect 500 cows. Money refunded if animals are not protected. Endorsed by the best class of people. Order at once and secure agency, you can sell hundreds of gallons. 1 gal. \$1.10; 2 gal., \$2.10; 5 gal., \$4.50; 10 gal., \$9.00. Ripley's Special Sprayer for applying same, \$1; 4 gal. Compressed Air Sprayer for applying same on large herds, \$5.00.



The Ripley Hardware Co.,
Gentlemen:—For three years I have been experimenting with different things to keep flies off my cows, but not until I tried your Fly Remover and Compressed Air Sprayer was I successful. I used this last year and found that it cost less than one cent per week per cow. With your Compressed Air Sprayer it takes but a few minutes to put it on, and the result has been that my cows were free from flies, and during the year gave 6400 pounds of milk each, which made 324 pounds of butter per cow. I can heartily recommend it to all stock owners.—**JOHN ARMSTRONG,**
Pres. State Board of Agriculture, De Smet, S. D., June 4, 1901.

RIPPLEY HARDWARE CO., Box V, GRAFTON, ILL.

Manufacturers of Breeders Supplies.

DAISY FLY KILLER



placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, cannot spill or tip over, will not soil or injure anything. Guaranteed effective. Of all dealers or sent prepaid for 20 cents.
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This is Cal Husselman's great Poultry Book, just off press. It is freely illustrated with numerous useful and handy home-made accessories to the poultry business. It contains his 40 years' experience as a poultryman. It is the best poultry book ever printed and just what you want. It contains more plain, everyday common sense about the chicken business than you ever read. 120 pp., cloth bound. Price? We will almost give it to you. Just send \$1 and we will enter your order for the book and throw in a year's subscription to The Southern Planter.

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A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

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STOCK FARMS

In the beautiful blue grass region of Loudoun. Best of soil; best of grass; best of water. Best of communities; best of improvements; best of schools. The ideal stock country. The ideal "home" country.

Most accessible of good properties. Most convenient to the real markets of the East—Washington, Baltimore, Philadelphia and New York.

Specialty of farms and estates in the counties of Loudoun and Fairfax. Best of land, fertile, rolling and well drained. **No swamps and no malaria.** Communities made up of intelligent and prosperous people.

Herndon is the center of the dairy interests of Northern Virginia. It is located on the Bluemont Division of the Southern Railway, only twenty-seven miles from Washington, D. C.



Dwelling on Blue Grass Farm No. 301.

No. 301.—A beautiful blue grass farm, in the very best of communities, in the famous blue grass region of Loudoun county, Virginia. Over 100 acres of splendidly productive land which makes from 60 to 80 bushels of corn. Well fenced; ample timber lot; well watered; some fruit. The dwelling is a large old fourteen-room brick, with modern improvements, and in fine condition. Situated on a beautiful lawn with splendid shade. There are barns and all necessary farm buildings, and in good condition. Only $2\frac{1}{2}$ miles from a good town on the railroad, by the very best of country roads. Schools and churches within a quarter of a mile. This is naturally one of the most attractive properties to be found in a charming neighborhood, where every farm is good and the owners prosperous, intelligent and refined. Less than fifty miles from Washington, D. C., with frequent and direct railroad service to the Union Station.

No. 302.—A fine blue grass farm of over 300 acres; fair improvements; best of soil. A bargain; only \$27.50 per acre.

No. 303.—A small Loudoun county farm, about 80 acres; 7-room frame house and necessary farm buildings. Only two miles from large town on the railroad. If sold at once, \$2,600.

CLAUDE G. STEPHENSON, Virginia Properties, HERNDON, VA.

RARE BARGAINS

IN

Northern Virginia Farms

A Few Specimens:

No. 172. Contains 315 acres—40 acres in oak and hickory timber; 5 miles from station, situated near the village; considered one of the best wheat and grain farms in Fairfax county. The land is a little rolling; machinery can be run all over it. The land is all in good state of cultivation; well fenced and watered by springs and running streams. Improvements are a good 7-room house with elegant shade, good stable and all out-houses in good repair. Price \$20 per acre.

No. 194. Contains 175 acres, 25 acres in good timber, balance is cleared, 9 acres in orchard in full bearing, good six-room house, old barn, good granary, hen houses, dwelling in a grand oak shaded lawn, spring at house, farm watered by streams and springs, situated on good pike. One hour's drive from Leesburg, Va. Owner is anxious to sell. Price \$3,500.

No. 208—600 acres Loudoun Blue Grass land, 8-room brick house, in good repair, farm well fenced, elegantly watered, excellent bank barn, good orchard, fine timber. Price \$25.00 per acre.

No. 201—406 acres, Loudoun Blue Grass farm 8-room brick and frame dwelling, elegant repairs, excellent barn 40x100, water in every field, well fenced, good orchard. Price \$10,500.

No. 202—475 acres, Blue Grass land, small 5-room house, land is good, well fenced, excellent water, good small orchard, excellent situation, but buildings are only fair condition. Price, \$9,000.

No. 209.—206 acres, beautiful little Loudoun County farm, 6-room dwelling, beautiful shaded lawn, water in all fields, good fences, land is smooth and level, good barn and outbuildings. Price \$6,500.

No. 210.—273 acres, Loudoun blue grass land, well located in grazing section, excellent orchard, well watered, 6-room house and outbuildings in fair condition. Price \$13.50 per acre.

Write for complete description of these properties and Catalogue of other places.

Wm. Eads Miller,
HERNDON, VA.

Leigh R. Page, Jr., and W. J. Carter, with Mark R. Lloyd, as race secretary and general manager of the Fair.

The Hon. Westmoreland Davis came down from Leesburg and served both as one of the judges of show horses and as a steward of The Jockey Club at the spring meeting of the Virginia Horse Show and Racing Association, at Richmond, on May 15, 17 and 18. Mr. Davis offered some interesting comment on the situation pertaining to racing and the interests of the thoroughbred horse in general. He is inclined to view matters in a more favorable light than some others interested in racing and breeding, and believes that the depression now existing is most likely to be followed by a healthy reaction and that the sport will be conducted along lines imbued with a greater degree of sentiment than for some time past.

Mr. Davis is Chairman of the Hunts Committee of the National Hunt and Steeplechase Association, and by his counsels has exercised a strong influence in adjusting affairs that otherwise might have resulted in friction of a pronounced sort with the Jockey Club.

Mr. Davis owns Morven Park, which not only is one of the show places of Loudoun county, but one of the finest and most highly improved estates in all Virginia. Harness horses, Guernsey cattle, Yorkshire hogs and Dorset sheep are bred at Morven Park. Both Mr. and Mrs. Davis ride to hounds and take an active part in the affairs of the Loudoun County Hunt Club. The stable of hunters includes horses of real class, and are selected by the master of Morven Park, who is at home in the saddle and an ardent devotee of cross-country riding.

With the seven-year-old bay gelding, Alto Down, 2:17 1-4, a product of the Vendome Stock Farm, San Jose, Cal., S. E. Earing, of Montezuma Farm, this city, carried off the blue ribbon in the roadster class on Monday at the Virginia Racing and Horse Show meeting. There were ten entries in the class, including some of the best roadsters in Richmond, but the bay gelding from the Pacific slope, well handled by Blanchard Forbes, was awarded first prize after mature deliberation on the part of the judges. This horse was sired by Iran Alto, dam Elsie Downs, by Boodle, and was purchased only a few weeks since by Earing, who campaigned the bay gelding over the half-mile tracks of the East in 1907 and won some good races with him. Alto Down is now in Earing's stable, who will race him again this season.

In the stable of his owner, Col. G. Percy Hawes, at 29th and Dock streets, Richmond, Va. Longlane, thoroughbred son of Longstreet and

SELECT OFFERINGS IN
VIRGINIA REAL ESTATE

\$12,000

Contains 200 acres, 60 acres in oak and hickory timber, balance in grass, small portion under cultivation, lies well up and is gently rolling soil, clay loam with clay subsoil—watered with live streams which are fed by springs—driven well and windmill at dwelling place is well fenced. Is situated right on macadamized road, $\frac{3}{4}$ of a mile from railway station and runs up to corporation limits of a town of about 2,000 inhabitants and about 30 miles from Washington City.

IMPROVEMENTS.—New dwelling, 10 rooms, one bath room, cellar, two large porches, hardwood floors, up and down stairs, hot and cold water to top of house. Is well elevated, affords a splendid view of mountains, large lawn, delightful shade. New barn—main building is 40x70 feet, two wings 30x48 feet each and is two stories throughout, hay fork, covered barn yard 40x50 feet, hydrant in barn, crib, smoke and corn houses are among the outbuildings. Barn was designed to meet requirements of D. C. Health Department for dairy business. Owner is anxious to sell.

\$45 00 Per Acre.

Contains 825 acres, $3\frac{1}{2}$ miles from railway station, right on metal road, 300 acres in virgin oak, right at foot of Bull Run Mountains, balance in grass and under cultivation. Large portion in Blue Grass meadows. Public roads on three sides, well fenced, woven wire and stone fencing, locust posts.

IMPROVEMENTS. — Thirteen-room mansion, two bath rooms, out kitchen, pantry, two servants' rooms, cellar under entire house, handsome cabinet mantels in all rooms, open grates, two porches, large lawn and 120-ft. avenue $\frac{1}{4}$ mile in length leading to road; avenue and lawn delightfully shaded. Foreman's house, 6 rooms, four cabins, 3 rooms each; large bank barn, 60x90 feet, large horse barn, 6 box stalls about 30x40 feet. Carriage house with five stalls for horses attached, harness rooms, two chicken houses, hog houses, corn crib with capacity for about 1,000 barrels, nothing could be added to this place that would be necessary. All improvements are in perfect condition and have been recently painted. Send for my catalogue of Grain and Grass Farms.

GEORGE W. SUMMERS,
Sterling, Va.

Convenient To
RICHMOND AND WASHINGTON.

Virginia FARMS

Best Railroad Service and Climate.

227 A.—Beautiful location, two miles from Ashland, \$5,500.

75 A.—Dwelling, barn, store and orchard, 8 miles from Ashland, best neighborhood, \$1,500.

100 A.— $\frac{1}{2}$ mile from Doswell, county road front, \$1,000.

FRANK H. COX

Ashland, Hanover Co., Va.

REAL ESTATE FOR SALE.

From the Mountains to the Ocean. Catalogue free. Loans made on farms. Established 1875.

GEORGE E. CRAWFORD & CO.,
1009 E. Main Street,
RICHMOND, VA.
Branch, Norfolk, Va.

Highland Lassie, is doing nicely; in fact, the grand looking bay stallion never seemed more vigorous or impressive in appearance than during the present season. A horse of splendid size and symmetrical proportions, no stallion in the land has better manners or is kinder or more sensible than this big, fine looking scion of the famous Longfellow family. In classes for thoroughbred stallions at the Virginia State Fair in 1906, 1907, and 1908, Longlane was awarded first prize in large fields and should Col. Hawes show him again this fall other owners will find the bay stallion a hard horse to beat. His breeding is of the sort to attract attention on both sides, seeing that his sire was Longstreet and his dam Highland Lassie, 69 imp. Highlander, from Algebra, by Abel Kader and she out of the wonderful race mare and producer, Nina, dam of Planet, by Boston. Longlane is used under saddle and driven on the road almost daily and few stallions so well known have been seen on the streets of Richmond.

The Albemarle Horse Show Association, with headquarters at Charlottesville, has been, since its organization, one of the most important members of the Virginia horse show circuit. Charlottesville is the county seat of Albemarle, and the center of an important breeding and grazing district, important factors in contributing to the success of the horse show.

Men of prominence in the community direct affairs of the Charlottesville show, and those in charge include: J. Anderson Chisholm, president; L. T. Hanckel, Sr., first vice-president; John F. Payne, second vice-president; J. W. Garnett, third vice-president; F. H. Trieber, secretary; A. V. Conway, treasurer; Joel M. Cochran, manager. Directors—J. B. Andrews, Reuben Maury, R. W. Holsinger, E. S. Johnson, George B. Goodyear, H. E. Magruder, R. L. Valentine, H. M. Lewis, A. B. Hancock, W. R. Duke and W. L. Carpenter.

Holt S. Lloyd, of Richmond, has been engaged as general manager of the Danville Fair Association, recently organized at Danville, Va., and will take charge at once. Mr. Lloyd is the younger brother of Mark R. Lloyd, general manager and assistant secretary of the Virginia State Fair Association.

Weyauwega, Wis., Dec. 6, 1907.
Johnson & Field Mfg. Co.,

Gentlemen:—I have tried the mill and it is as good as it can be made as it will grade wheat in good shape. Had wheat and oats mixed up and it took out most of the oats. Am well satisfied with it. You said in your letter that you paid the freight 500 miles but you did not pay it on my mill so please let me know, the freight was \$1.15.

GEO. E. PASCHKE,

The Oldest Established Agency in Northern Virginia FARMS = NEAR = WASHINGTON

29. 227 acres close to pike, 5 miles from railroad over macadam road most of way; about 100 acres in white oak, hickory and cedar. Land rolling and easy to work; land adjoining is selling as high as \$45 per acre. Land will be worth from \$15 to \$20 after the timber is taken off. Price only \$25 per acre. \$3,000 down, balance to suit. Bargain.

30. 135-acre dairy farm on railroad, close to station, in Loudoun county; has been a dairy farm for twenty years. The owner, on account of old age, offers to sell everything, including ten good cows, five horses, all farm implements and crops for about \$8,500. There are stanchions for twenty cows in new barn, recently built, according to health regulations. The land is under a high state of cultivation, fine fruit, lasting stream running through place, 7-room house and all necessary outbuildings. The farm and crops, if sold at once, \$7,000. Bargain.

33. 99 acres two miles from station on pike in Loudoun county, in high state of cultivation. Seven-room house, fine stream and well; barn that cost \$1,000, good outbuildings. Price, \$7,500. Would exchange for a first-class flour-mill on rail in good section.

36. 82 acres 1½ miles from Southern Railway, in Loudoun county. Eight acres in timber, good clay soil, springs and streams, good house of 8 rooms, with fruit and shade trees, good barn and necessary outbuildings. A good farm and a bargain. We think \$6,000 will buy it. On easy terms.

41. 264 acres, four miles from station, in Loudoun county. Thirty acres in timber, artesian well, three never-failing springs; 7-room house, barn and outbuildings fair. A fine stock farm, paying 12 per cent. on investment, in high state of cultivation. Price, \$6,500; \$2,500 down, balance to suit.

42. 323 acres, in the best section of Loudoun county, surrounded by high priced and beautiful farms, 7 miles from railroad, one mile from fine pike, one mile from post-office and 2 miles from school; 60 acres in timber, well fenced, and divided into nine fields, with water in every field—large stream through place. Two good houses, one of 7 rooms and the other of 5 rooms; fine tenant house of 4 rooms, 2 new barns, one 35x45, the other 30x40; all necessary outbuildings in good condition. This is a fine blue grass stock farm, and the biggest bargain we have. Price, \$6,500; \$2,000 down, balance to suit.

45. 93 acres 1½ miles from station and town, 27 miles from Washington, in Fairfax county. 18 acres in oak timber, rest mostly in grass; heavy clay soil, in a good state of cultivation. Nine-room house in good condition, with cellar; well at door, pretty lawn, plenty of shade, first-class barn, with basement for 25 head of cattle. Barn is supplied with water from a very fine spring. All kinds of fruit, carriage house, corn shed, ice-house, hennery, etc. The property is now being operated as a dairy farm. This is an ideal home, and a good investment. Price, \$8,000; \$3,000 down, balance to suit.

44. 277 acres in good state of cultivation, just rolling enough; in a good neighborhood, 5 miles from railroad, in Loudoun county. 70 acres in timber, mostly oak; part of it first class; faces on two roads; has been operated as a cattle, sheep and hog farm for 25 years. On account of old age the owner is offering his farm for much less than its true value; is well fenced, two houses in first-class condition, one 10-room house, the other six rooms. Large barn and all necessary outbuildings. Price, \$8,000. One-third down, balance to suit. This is one of the biggest bargains I have.

50. 171½ acres, 3½ miles from railroad, in Loudoun county, in high state of cultivation. Good house, large new barn; half mile from village. This farm is being operated as a stock farm. The owner wishes to sell and buy a smaller place. It is well located and surrounded by highly improved farms and the best of neighbors. Price \$53 per acre, on easy terms. Bargain.

64. 469 acres in Fairfax county, 5 miles from railroad, 7 miles from electric line; 200 acres in timber, mostly oak, balance in crops and grass, crops to go to purchaser; clay soil, just rolling enough to drain well. Two houses and two barns; new house of 8 rooms, old house of 5 rooms. Including stock, farm, implements, crops and everything. Price \$11,000, on very easy terms. Make us an offer.

71. 200 acres, one mile from railroad and town, on macadamized road, 27 miles from Washington; 130 acres under cultivation, balance in valuable timber, well fenced, stream running through place, two wells, wind-mill furnishes water for house and barn. Attractive 9-room house in first-class condition, with new modern improvements; beautiful fireplace in dining-room; well situated with nice lawn and plenty of shade and beautiful view. Tenant house, large modern barn recently built, and all other necessary outbuildings. In good neighborhood, where property is being bought up rapidly. One of the most desirable farms in this section. Price, \$15,000. Terms, \$3,500 down, balance on easy terms. Make us an offer on this place.

77. 300 acres, 3 miles from railroad, in Loudoun county, in a high state of cultivation, well fenced, plenty of fruit, running streams and springs; on pike, fine, large Colonial house, lawn and shade, large new barn with basement, necessary outbuildings. This is considered one of the best stock farms in the country, and a bargain. Price, \$64 per acre; \$60 has been offered for this place; worth \$100, on easy terms.

82. 800 acres in Prince William county, 35 miles from Washington, 1½ miles from railroad; convenient to churches, school, mill, etc.; all fenced; 400 acres in timber, 400 acres of good grass land, especially suited for stock or dairying; smooth and free from rocks, borders on stream, 9 fields well watered, small orchard. Excellent residence, beautifully situated in 8 acres of lawn; 2-story frame with hall in middle, hot and cold water in pantry, bathroom with all modern improvements. Good 2-story frame servants' house nearby. Fair barn, 52x30, and all necessary outbuildings. Bored well and also wind-mill with two large storage tanks, and cistern. 7-room tenant house, with barn, well and outbuildings. This desirable farm has just been put in my hands for sale. Price only \$25 per acre for whole; or will sell a part at price, according to location, improvements, etc. One-third down, balance on easy terms.

88. 841 acres 5 miles from Herndon, over good roads; one mile from pike; 200 acres in timber, part of it extra good; land rolling and well drained; convenient to schools, churches, stores, etc. Three sets of buildings, two houses, barn, etc. In good condition. This place is especially adapted to stock raising, and is cheap at \$23 per acre. \$6,500 down, balance to suit.

SEND FOR NEW SPRING LIST.

A. H. BUELL, Real Estate Broker, HERNDON VA.

CRITTENDEN'S VIRGINIA Real Estate and Loans Office

Unimproved land at \$10. Improved lands at \$25 per acre and upwards. Loudoun is not the Best County in the State; but it is better than the REST in many respects.

If you wish to locate a home, or buy any other property, advise me as to your wants and I will send you SPECIAL DESCRIPTIONS that will please you. All Propositions Guaranteed as Represented.

DeL S. CRITTENDEN,

Ashburn, Loudoun County, Va.

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IN

Southside Virginia

\$10.00 to \$30.00 per acre.

With buildings, fruit, timber, good water, best markets. Level land, productive soil.

Write for our Real Estate Herald with map and full information.

PLYLE & COMPANY, Inc.

Petersburg,

Virginia.

THE PENINSULA SECTION

Our farmers made \$100 per acre clear from early potato crop season of 1908. This is the coming section. Write us. **PIEDMONT AND TIDEWATER LAND COMPANY (Inc.),**

Box P, Williamsburg, Va.

FARMS.

Mineral and Timber Lands.
Free list on application.

W. A. PARSONS & CO.,
1527 E. Main St., Richmond, Va.
Davis Hotel Bldg.

Tell the advertiser where you saw his advertisement.

STRENGTHEN ANIMAL DIGESTION.

If the right way to feed cattle was thoroughly drilled into the consciousness of every farmer in the country, there would be less groaning about "hard times" and "poor luck."

There is no such thing as hard times to the farmer whose system of feeding is right. Cattle raising and feeding, as conducted on a good many farms, needs some new ideas infused into it—that's all. Men who fail practice old time methods; men who succeed follow "The Dr. Hess Idea," which shows plainly that the key to the whole situation is good animal digestion.

This is a new and common-sense solution of an old difficulty. A steer getting double rations, day after day for weeks, can't be expected to "stand up" under it and "finish" good and plump and hearty, without his over-loaded stomach has assistance.

Think of yourself a moment—how you feel after a specially heavy meal—and then think of the results likely to follow a continued course of such feasting. You couldn't stand it; neither can the steer.

Is it any wonder, then, that many a feeder who starts out with a fine bunch of stock and good prospects of a high market, finds himself, later on, face to face with an almost ruinous loss, and all because this truth which nature and observation should have taught him, has been disregarded?

Experience is a good teacher, though sometimes a hard one. It's better to take the "ounce of prevention than the pound of cure;" hence the object of this article is to show plainly where the preventive and remedy lies.

"The Dr. Hess Idea" tells us (and it was all proved by careful experiment long ago) that suitable tonics, such as are found in the Dr. Hess Stock Food, are absolutely essential to health in a fattening steer or in a cow forced to a maximum milk yield. Without such an easy and natural assistant, a break down will come. With these elements (iron, nitrates and bitter tonics) given daily in the grain ration, health, good appetite, and steady growth and fattening follow as a consequence.

USEFUL HINTS ON SILO BUILDING.

Leading authorities on dairying are frequently called upon to give advice and suggestions on the subject of silos and silo building. Just now, especially, there is a great deal of discussion as to which silo really is best—which one will keep ensilage sweet until it is used—and it is not at all surprising that various opinions should be expressed on the subject.

It is the belief and experience of many who are in a position to know, that for durability, and satisfactory results no type of silo can surpass the



THIS BEAUTIFUL HOME

CAN BE BUILT FOR LESS THAN \$500 complete when our simplified plans of construction are followed. The above price covers cost of all material and labor for completed house, ready to move into. We furnish complete blueprints and bill of materials for \$5.00, securely packed in mailing tube, post-paid. Circular showing floor plans and dimensions sent on request. Write today and save half the cost of a new house.

UNIVERSAL PUBLISHING COMPANY,
Roanoke, Va.

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FARMS NEAR WASHINGTON.

Unsurpassed as money-makers; best place on earth for farmers, dairymen, stockmen or poultrymen; mild climate, best markets in country; highest prices; no such word as "Fail" for industrious man. Big bargains here now. 3,500 places to select from. Catalogue free.

THE SOULE CO., Washington, D. C.
Largest Farm Dealers in the South.

FARMS For Sale.

If you want a farm to raise grass, grain, stock, fruit or tobacco, buy from us. Chocolate soil with red subsoil. Address

W. W. BARNES & CO.,

LAND AND TIMBER AGENTS,
Amelia Courthouse, Va.

Old Virginia Farms.

Climate and Productiveness unexcelled. Largest sale list in the State. For full particulars and Free Catalogue address

CASSELMAN & COMPANY,
RICHMOND, VA.

Virginia Farms

MOST SELECT LIST, and in all sections of the State.

FREE CATALOGUE.

R. B. CHAFFIN & CO, Inc.,
Richmond, Va.

Please mention the Southern Planter.

round wooden style, made preferably from seasoned white hemlock, white pine or cypress.

Bearing these facts in mind, many of our readers will be glad to take advantage of the opportunity to write for the catalogue of the Harder Mfg. Company, whose advertisement appears in this issue. This company has been building silos for more than twelve years, and the practical knowledge gained from their experience entitles them to the serious consideration of every farmer and dairyman.

All Harder Silos are erected in the factory and the sections are numbered carefully, so that the setting up on the farm is a very simple matter. They are made of choice selected and seasoned lumber, and the system of doors employed renders them practically air-tight.

The Harder Catalogue is a very interesting work, dealing not only with the details of silo building as this Company applies them, but illustrating silo filling machinery and containing, in addition, numerous facts of general interest to all milk producers. A copy will be mailed on request to anyone addressing the Harder Mfg. Company, Cobleskill, N. K.

A HOT SUMMER ON THE WAY.

As the balmy spring days swing by, one by one, and the coming of summer is heralded by an occasional hot day, it all serves as a reminder of the heat of previous summers and of the fact that no matter how hot the coming summer may be, there will be the usual work to do in the kitchen.

In homes where the work is done on a hot coal or wood stove, the situation is a particularly trying one—as it means added heat and discomfort—to say nothing of the trouble of carrying coal, wood and ashes; of having to wait for the fire to get started; and of having to keep it going when not actually needed.

But there is now a way by which all this unnecessary discomfort and trouble can be easily avoided—a way by which the cooking, baking, washing and ironing may be done without having an extra degree of heat in the kitchen. This happy result, it is claimed, may be accomplished with the New Perfection Wick Blue Flame Oil Cook Stove, a cook stove so constructed that all the heat is concentrated in the cooking, baking, in the heating of the irons and wash boiler, without being thrown off into the room to make an unbearably hot temperature.

Besides this great feature of comfort, the convenience must also be considered; and it is here, too, that the "New Perfection" excels the coal and wood stove. It is ready for business the moment the match is applied; it can be turned "low," "medium" or "high" at will, or, if required, three different sized flames can be had at the same time.

JOHN F. JERMAN

HEADQUARTERS FOR

VIRGINIA PROPERTY

Main Office, Fairfax, Va.; Branch Office, Vienna and 1316 I St., N. W., Wash, D. C.

If you want to buy a grain, dairy, fruit, truck, poultry or blue grass farm, city or village property, it will pay you to send for 80-page catalog. It is full of bargains. It contains all kinds of business propositions. It will pay you to buy a farm near the capitol, where you have good markets, and the benefit of steam and electric R. R. service.

My catalog is free to you.

I am always ready to show property, and try to help my clients make a good investment.

My Motto is "Honesty and Fair Dealings."

Farms Listed and Sold.

List Your Farm With Us.

THE MIDDLE ATLANTIC IMMIGRATION CO.

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REAL ESTATE

INSURANCE

Especial Facilities for locating settlers. Send for farm list and other information.

Farms in Northern Virginia

DAIRY, GRAIN, STOCK, POULTRY, FRUIT.

Near Washington and Baltimore, and in easy reach of Philadelphia and New York.

Unlimited markets and unsurpassed shipping facilities. Reasonable in price. Near good live towns, schools and churches. Write us.

CLAUDE G. STEPHENSON,

(Successor to Stephenson & Rainey, Herndon, Va.)

180 Acre

FARM FOR SALE.

At a bargain, 3 1/4 miles from Saxe Station, in Charlotte Co. Well located convenient to schools, churches, mills, and stores, well watered by springs and branches, land well adapted to tobacco and all crops grown in this section. Only one new log cabin on the land; timber enough on the place to do necessary building. Price \$600 cash. W. M. WATKINS, Saxe, Charlotte Co. Va.

A CHARMING OLD VIRGINIA HOME in Albemarle Co., 540 acres, 150 being rich low grounds. Timber and river boundary. Colonial style brick dwelling, some modern equipment and in first class condition. All necessary out-buildings. Extended and beautifully shaded lawn. Magnificent views. Station one mile. Great hunting territory close by. Price \$25,000.

Illustrated Register free. Also handle timber and mineral lands.

H. W. HILLEARY & CO.,
Charlottesville, Va.

A Beautiful Loudoun County Farm

Of 227 acres, 3 miles from station, excellent improvements. Well watered. Good orchard. Land in good condition—part in blue grass. Will sell farm only, or with all stock, farming implements and household goods and give immediate possession. For particulars, address

NICOL & RANSELL,
Box S. P., Manassas, Va.

Always mention The Southern Planter when writing advertisers.

ATTENTION

HOMESEEKERS AND INVESTORS.

Send for my Map and new Catalogue showing and describing this section of Northern Virginia, and a complete list of all property now on the market, consisting of Grain, Grass, Dairy, Fruit, Stock, Truck, Poultry, and Blue-grass Farms, Town and Business Places.

I claim and can prove that this section shown by my map, has advantages over any other part of the State. It is not only beautiful and healthy but is productive and progressive, and very accessible to Washington and Alexandria cities, by rail and pike which gives all producers a fine home market.

I am not a broker or speculator, I bring the buyer and seller face to face, I have no speculative interest whatever in any property. My business is wholly on commission which is paid by the seller.

References furnished in my Catalogue. If you can't come, write.

W. H. TAYLOR, Herndon, Va.

A SPLENDID DAIRY FARM

Of 204 acres, one mile from station, less than 50 miles from Washington City, all equipped for business, together with cows, all other stock and farming implements. Well watered and fenced. Nine-room dwelling, 6-room tenant house, large barns, etc. A bargain to a quick purchaser.

NICOL & RANSELL,
Box S. P., Manassas, Va.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

CHEAP=FARMS NEAR=WASHINGTON

25 acres, 3 miles from Herndon; near store, school, etc.; 15 acres under cultivation, balance in timber; 6-room house, fine orchard in bearing, and young orchard; lasting streams; fenced garden; good barn and out-buildings. Price very low—\$2,000; \$500 down, balance easy terms.

1. 34½ acres in Prince William county, 1½ miles from railroad, and 37 miles from Washington; school, church, etc. Fine boating, fishing (bass), duck shooting, etc., a splendid poultry farm or suitable for small dairy. Eight to ten acres in timber, fenced into seven fields, fine running water, one side bordering on run, good fruit—apples, peaches, pears and grapes. Six-room house in good condition, barn 20x30 fitted up for twelve cows; good corn house, etc. Price only \$2,000, on easy terms.

5. 104 acres in Loudoun county, 8 miles from railroad, 1½ miles from store, school, church, etc. Four acres in good oak timber, 100 acres of clean, smooth land, a little rolling; branch through place; some fruit, well fenced. Small, comfortable house of four rooms, with summer kitchen and porch, in fair condition; small barn, good corn house, etc., two-room tenant house, first-class water. Price, \$2,500.

93. 50 acres, 2 miles from railroad, in Fairfax county, 2 miles from school, church, etc.; fifteen acres in timber, well watered by spring and stream, fine orchard; house of 5 rooms in good condition; good barn 28x31, all necessary outbuildings. This is an excellent farm for poultry. Price, \$3,000.

17. .97½ acres of good land 2 miles from the railroad, in Loudoun county, 1½ miles from electric railway, 62 acres in timber about 4,000 cords of wood, besides much good timber; clay soil, four lasting springs. House of 5 rooms with cellar, nicely located on road much traveled; fine shade, good barn and all necessary outbuildings, a fine orchard. All personal property, including stock, farm implements, crops, etc., go with place for only \$4,500.

In the best section of Loudoun county, surrounded by high priced and beautiful farms, 169 acres, 7 miles from rail over a fine pike; two miles from school; 40 acres in fine oak timber; well fenced; divided into several fields with water in every field, in a good state of cultivation—especially adapted to blue grass; good house of 7 rooms; new barn 35x40; 4-room tenant house; all necessary outbuildings. Price, \$4,500; \$2,000 down, balance to suit. Half of wheat and corn crop to go to purchaser.

154 acres well located in Loudoun county, 7 miles from rail over macadam road; 20 acres in second growth timber; large stream through place; good blue grass land, in a good state of cultivation; well fenced; 1½ miles from school; 1 mile from post-office; house of 5 rooms, with new barn 30x40; all necessary outbuildings. Price, \$3,500; \$2,000 down, balance to suit.

A. H. BUELL,

Real Estate Broker,
Herndon, Va.

"In the Green Fields of Virginia."

Homes for all; health for all; happiness and independence for all. All sizes of Farms at corresponding prices but ALL reasonable.

MACON, & CO., ORANGE, VA.

There is no stove work that the "New Perfection" will not do. From morning till night—from Monday to Sunday—from wash day to baking day its usefulness is without end. And it does its work so quickly. No waiting for fire to get started—no late meals—no uncertain results.

Another home comfort is the Rayo Lamp, a lamp that produces a clear, steady light of unusual brilliancy, and yet so mellow as not to hurt the eyes. Made of brass, beautifully nickeled, and having a handsome shade. It is an ornament to any room, and can be used with equal satisfaction in the library, dining-room, living-room, parlor or bedroom.

West Point, Va., Oct. 15, 1907.

Johnson & Field Mfg. Co.,
Racine, Wis.

Enclosed find my check on Planter's National Bank, Richmond, Va., in settlement of Fanning Mill shipped to me. Highly pleased with it. It gives perfect satisfaction. Yours very truly.

W. C. DAVIS.

PROTECTION AGAINST FIRE.

The Manufacturers of Amatite, the best known of the mineral surfaced roofings, received the following letter from Hot Springs, Arkansas:

"Dear Sirs:

I want twenty more squares of Amatite and I will tell you why.

I had a house gutted by fire three weeks ago, and it was covered with Arkansas shingles, thin shingles and a rubber roofing. One kitchen was covered with Amatite, and it seemed to be the only fire-resisting roofing on the house. All of the other roofing was entirely destroyed. After the fire was put out, the Amatite roofing was standing with the exception of some places where the sheathing had torn out and broken holes through it. In fact the major portion of the Amatite would have turned water after the fire.

As I am going to rebuild, I want enough Amatite to cover the entire house.

Yours respectfully,

G. F. MALDING."

If any of our readers are not familiar with Amatite they should send and get a sample at once. This roofing needs no painting and is fire-retardant as well. Address the nearest office of the Barrett Manufacturing Company, New York, Chicago, Philadelphia, Boston, St. Louis, Cleveland, Pittsburg, Cincinnati, Kansas City, Minneapolis or New Orleans.

HOW ABOUT OILING THE HARNESS.

Harness oiling is a rainy-day job on the farm and a regular part of stable work in the city.

It's a vitally necessary part, too. There's no trouble about spoiling a harness—the question with horse-owners is how not to spoil harness.

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CANE SEED

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SEED SWEET POTATOES

WE HANDLE THE ABOVE AND

ALL OTHER SEASONABLE

SEED. WRITE FOR SAMPLES

AND PRICES.

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RICHMOND, VA.

COW PEAS

We quote for immediate shipment, subject to market changes and stock being unsold, Mixed, \$1.30; Clay, \$1.40; Whip and Black, \$1.50; Mammoth Yellow Soy Beans, \$1.15; Amber and Orange Cane Seed, \$1.30; German Millet, \$1.50; Japanese Millet, \$1.50; Buckwheat, \$1.10. One million Sweet potato Plants for immediate delivery, leading varieties, 1,000 lots, \$1.50; 5,000 lots, \$1.20; 10,000 or more, \$1.00, all F. C. B. our station.

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The most desirable new variety; bears heavy crops when Elberta fails; carries to market in perfect condition which commands better prices than other varieties; awarded gold medal at St. Louis for being largest and handsomest peach on exhibit.

Apple, peach and pear trees, sweet potato plants. Write for circular.

E. W. JONES NURSERY CO.,
Woodlawn, Va.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

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We are headquarters for su-
perior Seeds of all kinds.

GRASS and CLOVER SEEDS.

Garden and Flower Seeds, Cow
Peas, Field Beans, Sorghums,
Millets and all seeds of the
highest quality and germination.

Write to-day for our free cat-
alogue and price list.

Your Correspondence Solicited.

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LOWEST PRICES ON
ALL KINDS OF

FERTILIZERS, LIME, SEEDS and
FARM MACHINERY

Write us if you want farm pro-
ducts of any kind, or any stock:
horses, cattle, sheep or hogs.

Farmers' Club of Gloucester Co.

S. C. WOLCOTT, Secy.,
Dixondale, Va.

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POTATO

PLANTS

Reasonable Rates in Large Lots.

For prices and variety apply

J. S. LINTHICUM,

Welhams, - - - Md.

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A very little use in all kinds of
weathers works a great change in the
flexibility and "snappiness" of harness
leather. It gets hard, dry, lifeless—
crossed and recrossed with little
checks which eat into the leather
and soon bring it to the breaking
point.

Every man who owns or drives a
horse knows these conditions and
knows that the preventive and cure
is "oiling;" but every such man does
not know that from an economical
standpoint, Eureka Harness Oil is
among the best.

Eureka Harness Oil has the qual-
ity or power of "staying put." It goes
into harness leather and it takes a
lot of wind and rain, and animal
sweat to drive it out. It stays better
than other oils. It gives a glove-like
texture to leather that adds wonder-
fully to its wearing qualities. And
it improves the appearance of the
harness by keeping it black, which
means keeping it new-looking.

Of course, if you use oil that keeps
a harness soft and pliable twice as
long as another, it's the cheaper of
the two, and that's why it pays to try
Eureka Harness Oil.

THE DAIRY BULLETIN.

The May issue of the Dairy Bulletin,
published by the Vermont Farm Ma-
chine Company, to make better known
the merits of the U. S. Cream Sepa-
rator, is an unusually interesting and
informative publication. Beside be-
ing well illustrated with half tone en-
gravings, there are several well writ-
ten articles that will appeal to every
farmer and dairyman, (owners of
Guernseys will be particularly inter-
ested in this issue) besides complete
descriptions of the various models of
U. S. Separators. A copy of this pub-
lication may be obtained free for a
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Vermont Farm Machine Co., Bellows
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KNOW MORE ABOUT BLACKLEG.

Every cattle raiser should know all
he can learn about Blackleg, what a
fatal disease it is to young stock,
how easily the infection is spread
from one animal to another and how
best to prevent it.

Dr. J. C. Roberts, of the Mississippi
Agricultural Experiment Station has
written a most intelligent Bulletin on
this subject. It is well worth care-
ful reading and study. It has been re-
printed, and it will be sent free to
anyone interested in the subject who
will write to Parke, Davis & Com-
pany, Detroit, Mich., and ask for a
copy.

It is a good plan to learn how to
save the calf crop and stop the spread
of this most infectious and fatal dis-
ease.

AUTO VS. "BIKE."

The automobile is a great invention
an excellent mode of conveyance

GERMAN
OR CRIMSON
CLOVER

GERMAN MILLET

GERMAN CLOVER

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SEED SWEET POTATOES AND

OTHER FIELD SEEDS, INCLUD-

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For Sale. Write for prices.

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"Feeds and Feeding"

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for only \$2.25, including delivery of
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great work on Feeds and Feeding
Stock and is the recognized standard
everywhere. Everyone with half
dozen head of stock should have it.

Southern Planter,

Richmond, Va.

MINOR'S FLUID

SHEEP AND HOG DIP.

Its use permitted in official dipping

Low prices on Dipping Tanks.

Testimonials and circulars for the
asking.

W. E. MINOR & CO.,
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Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.
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,
Trush, 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 ex-
press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address
The Lawrence-Williams Co., Cleveland, O.

Moon Blindness CAN BE CURED


"VISIO"

**Wonderful
Discovery**



DISEASES of the EYE
successfully treated with
this NEW REMEDY.

AN ABSOLUTE CURE
for Moon Blindness, (Ophthalmia), Con-
junctivitis and Cataract, Shying horses
all suffer from diseased eyes. A trial will
convince any horse owner that this remedy abso-
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length of time the animal has been afflicted. No
matter how many doctors have tried and failed, use
"VISIO," use it under our GUARANTEE; your
money refunded if under directions it
does not effect a cure. "YOU PAY FOR
RESULTS ONLY." \$2.00 per bottle,
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Visio Remedy Ass'n., 1939 Wabash Ave., Chicago, Ill.



ABSORBINE

Will reduce inflamed, strained,
swollen Tendons, Ligaments,
Muscles or Bruises, Cure the
Lameness and Stop pain from a
Splint, Side Bone or Bone Spavin
No blister, no hair gone. Horses can be
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ABSORBINE, JR., for mankind, \$1.
Reduces Strained Torn Ligaments, En-
larged glands, veins or muscles—heals
ulcers—alays pain. Book Free.

W. F. YOUNG, P. D. F., 109 Temple St., Springfield, Mass.



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Guaranteed

NEWTON'S Heave, Cough, Dis-
temper and Indigestion Cure.
A Veterinary Remedy for Wind,
Throat and Stomach troubles.
\$1.00 per can, of dealers, or ex-
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The Newton Remedy Co.
Toledo, Ohio.

But for real health value it does not compare with the once-popular bicycle. Many men and women found both pleasure and health in country tours on their wheels. And while some had the "scorching" fever and rode in a fashion that was dangerous to themselves and to others, they were few compared with the many thousands who gained physical health and vigor through the proper use of the bicycle.

Walking clubs are fine for both health and recreation, but it would be an excellent thing for the people if "cycling" should again become as popular as it was a decade or more ago.

For a very few dollars you can buy a wheel of the latest type from the Meade Cycle Company, Chicago.

Get their new catalogue of bicycles and supplies. If you wish, they will send you a wheel for ten days' free trial.

There is a mass of information about newspapers in the American Newspaper Annual (published by N. W. Ayers & Son, Philadelphia, \$5.00 net), the 1909 edition of which is just out. Catalogued in simple tabulated form are the facts one needs in dealing with newspapers, with particular attention to circulations, which are all given in plain figures. These are accompanied with valuable gazetteer information concerning the places where the publications are issued.

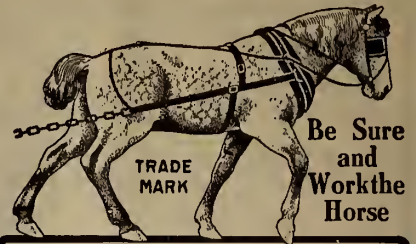
There are supplementary lists of daily newspapers, magazines and class publications. A colored map of each State is bound in the book. It also contains the Advertiser's Telegraph Code, compiled especially for the use of the publishing interests and filling a long felt want in this direction.

One of the most commonly mispronounced words in the English language is "R-U-B-E-R-O-I-D." Most people call it "RUBBER-OID," although the correct pronunciation is as though it were spelled "RUEBER-OID."

It is commonly supposed that RUBEROID is a "rubber" roofing—but nothing could be further from the truth. RUBEROID contains no rubber, and a roofing containing rubber would be practically useless, as rubber rots under slight exposure to the weather.

The base of RUBEROID is an exclusive processed gum known as Rubberoid Gum. This gum, resembles crude rubber, and is as flexible as crude rubber, but, unlike rubber, it retains its durability and flexibility after years of exposure to the weather.

Do not confuse the genuine RUBEROID with those cheap substitutes commonly known as "rubber" roofings.



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Any person, however inexperienced, can readily cure either disease with
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—even bad old cases that skilled doctors have abandoned. Easy and simple; no outlay; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in
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Best and surest cure for
Spavin, Ringbone, Curb, Splint, Cuts,
Swellings, all Lameness.

"I have found your Spavin Cure almost indispensable in my stable and I am never without it. Please send me your Treatise on the Horse."
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Biltmore, N. C.

A liniment for both man and beast. At all druggists, 31 a Bottle; 6 for \$5. Be sure you get Kendall's. Look for the trademark. Book, "Treatise on the Horse," free at drug stores, or write,
Dr. B. J. Kendall Co., Enosburg Falls, Vt.

USE CRAFT'S DISTEMPER and COUGH CURE



A safe and sure preventive and positive cure for all forms of Distemper, Influenza, Pinkeye, Coughs and Colds in Horses, Sheep and Dogs, 50c and \$1.00 at Druggists or prepaid. Write for free booklet "Dr. Craft's Advice."

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DEATH TO HAWKS

Life to Chickens and Turkeys.

Cock of the Walk.

"HAWK"
The Barn Yard
Robber.



I take Macnair's Chicken Powders and feed my children on them too. Look at me and observe the hawk. Cock a doodle doo.

Died after eating a chick of that old Rooster, which had been fed on Macnair's Chicken Powders. Alas! Alas.

MACNAIR'S CHICKEN POWDER

kills Hawks, cures Cholera, Gapes, Roup, Indigestion, Leg Weakness, and keeps them free from Vermin, thereby causing them to produce abundance of eggs.

Sample package 25 cents.

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THE OLD RELIABLE LAMBERT'S DEATH TO LICE

increases Poultry Profits and is practically indispensable to those who raise, sell or exhibit Poultry. Is the quickest and safest Lice Killer on the market and guaranteed not to injure eggs or chickens. Pocketbook Pointers on "Modern Poultry Methods" sent for 2c stamp. Write to-day.

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CAUSTIC BALSAM NEVER FAILED FOR BONE SPAVIN OR THOROUGHPIN.

I have used your Gombault's Caustic Balsam for bone spavin, thoroughpin and other blemishes on horses. It has never failed on anything I have tried it for.—J. M. Hauser, Phillippi, W. Va.

DIP YOUR SHEEP

in Cooper's Dip, used on 250,000,000 sheep annually. It increases quality and quantity of the wool and improves appearance and condition of the flock.

BE YOUR OWN HORSE DOCTOR.

If a swelling develops on your horse's leg, or he is suffering from a kick, a cut or a sprain, what would you do?

There is too much helplessness among people in the matter of caring for their horses. Of course, we cannot dispense entirely with the services of the veterinary surgeon, but in nine cases out of ten the services of the veterinary are really not necessary.

It is the duty of every horse owner to know something about his horse. He can be at least fairly well posted, so that he will know how to treat the little ailments. Then with some well-known effective remedy like Kendall's Spavin Cure at hand he will be able to save many a bill for a horse doctor and get practically continuous service from his horses.

The little ailments which beset your horse should have prompt treatment. You are the first to know of a sprain, a swelling or a cut. These will yield to a prompt application of Kendall's Spavin Cure by you as well as to the veterinary's treatment. Very likely the veterinary you would call would use the Spavin Cure anyhow. It is a remedy they use, perhaps, more generally than any other.

This old remedy is regularly advertised in this paper. The remedy does not change, neither does the price, one dollar a bottle; six for \$5. You can get it at any drug store. And if you want a book to post up a little on your horse, ask the druggist for "A Treatise on the Horse and His Diseases," or write direct to the B. J. Kendall Company at Enosburg Falls, Vermont, for it. It is free at either place.

Augusta Co., Va., Dec. 3, '08.

I esteem the Southern Planter very highly and am always anxious to get the next issue. J. H. RECTOR.

Bedford Co., Va., Jan. 16, '08.

I have been reading the Southern Planter nearly all of my life and I think it is the best farm paper I have ever seen. J. J. WALKER.

SANA-VET.

THE BEST CURE FOR HORSES.

Rapidly heals galls, cuts, sore shoulders, mange, etc. Best remedy known. Cure guaranteed. Try free sample.

SANITARY CHEMICAL CO.

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Baltimore, Md.

Glenview Orpingtons. S. C. BUFFS EXCLUSIVELY.

I will not sell any eggs for hatching next season. If you want some of the best stock of Orpingtons in the South, BUY NOW. Prices reasonable. State your exact wants.

B. S. HORNE, Keswick Va.

Silver Laced Wyandottes Eggs for hatching from choice matings at \$1 per 15. Now booking orders. Vigorous Cockerels, \$1.25 to \$1.50. Trios, \$4. Choice lot of birds to select from. Can furnish in any quantities wanted.

All stock strictly first class and healthy.

DR. H. H. LEE,
Poplar Hill Poultry Farm, R. F. D. No. 4, Lexington, Va.



SPRING BROOK POULTRY FARM

Culpeper, Va., H. H. Scott, Prop.

Breeder of Northrup strain Black Minorcas, Whitman strain of Brown Leghorns, and the best Silver-Laced Wyandottes. No more eggs for sale, but wish to thank my patrons and the public for their liberal patronage this season.

Stock For Sale.

VALLEY FARM

Barred Rocks,
S. C. B. Leghorns.
My choice breeders for sale to make room for growing stock.

CHAS. C. WINE,
Mt. Sidney, Va.



BLACK'S

Black Langshans

A superior egg-laying strain. Bred for all standard requirements. This year's breeding birds now for sale.

A. M. BLACK, Tazewell, Va.

MAKE THEM YOURSELF.

BROODERS & TRAP-NESTS

Inexpensive, simple to make, absolutely reliable.

One Trap Nest (model) \$1.50. Complete illustrated Brooder Plans, Twenty-five Cents. Address

R. O. BERGER,
16 N. 20th Street, Richmond, Va.

Please mention the Southern Planter.

COOPER'S POWDER DIP

Used Annually on 250,000,000 Sheep.

For 65 years the world's standard Dip. One dipping kills ticks, lice and mites. Increases quantity and quality of wool. Improves appearance and condition of flock. If dealer can't supply you, send \$1.75 for \$2.00 (100 gallons) packet to Purcell, Ladd & Co., Richmond, Va., or Wm. Cooper & Nephews, 177 Illinois St., Chicago

LUMP-JAW

Quickly and positively cured in less than three weeks with one application of

ADAM'S RAPID LUMP JAW CURE
Easy to use. Written GUARANTEE accompanies each bottle. Don't delay but write today for free circular. Dept. 27.
H.C. Adams Mfg. Co., Algona, Ia.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

S. C. WHITE LEGHORNS**100% FERTILITY GUARANTEED**

THINK OF IT!

We are selling our eggs at \$6.00 per 100 and are guaranteeing, not 80 or 90 per cent. as others are doing, but every egg fertile. Write us and let us tell you what we will do to advertise our great egg producers. Same price for a less number.

Eggs for fancy matings a matter of correspondence.

STOCK FOR SALE.

B. H. GRUNDY & SON,
300 W. Franklin St., Richmond, Va.

EGGS FOR HATCHING.

from my heavy laying strains

S. C. White Leghorns
White Wyandottes

Blood lines unsurpassed and standard qualities are excellent. \$2 per 15.

SCOTCH COLLIES.

The sensible kind. Correct type. Fashionably bred.

WARREN RICE, Vaucluse Sta., Va.
Frederick Co.

McCue's "Ringlet"

Barred Plymouth Rocks.

Again winners in strongest competition, Richmond, Dec., 1908, 1st cockerel, 3d and 5th cock, 5th pullet. Washington, Jan., 1909, 2d cockerel, 3d pullet. Most excellent layers—large, vigorous and beautiful. Good breeding cockerels \$2.25 to \$5 each.

Splendid Bargains in pullets, \$1, \$1.50 and \$2 each. Eggs from grand yards, headed by prize-winners, \$1.50, \$2, \$2.50 and \$4 per 15. You may get a prize-winner out of one sitting. Satisfaction guaranteed.

LESLIE H. McCUE,

Box 4, Afton, Va.

Eggs for Hatching**Husselman, the Hen Man**

Best laying strain S. C. Brown Leghorns; best laying strain S. C. White Leghorns, eggs \$1.00 for 15; \$6 per 100.

Pure Thompson Strain Barred Plymouth Rocks. Two pens. None better. Pens one and two. Eggs \$3 per 15.

One pen pullets from Maine Ex. Station mated to a fine large Thompson cockerel. Eggs, \$2.50 per 15.

HUSSELMAN,

Stop 26. Seven Pines Car Line

Highland Springs, Va.

EGGS, EGGS.

From Taylor's White Wyandottes. I am still booking orders for eggs. Prize pens, \$2 for 15; other pens \$1.50 for 15. Almost booked up, so send orders at once.

R. RANDOLPH TAYLOR,

Hickory Bottom Poultry Farm,
NEGROFOOT, VA.
R. F. D. No. 2. Beaver Dam, Va.

HINTS BY MAY MANTON.

To be Made in Round or Walking Length.

The skirt that provides slight flare at the lower edge is one of the very latest to have appeared and this model shows that feature at its best. It is slightly high waisted and close fitting over the hips and the plaited panels give long, becoming lines at the same time that they provide additional fullness. Pongee with trimming of buttons and finish of stitching is the material illustrated, but all reasonable ones that are heavy enough for the simple style are appropriate—linen, pique, and the like, pongee or Shantung in all its variations and also the light weight wools that are desirable throughout the entire season. When made in round length the skirt is adapted to afternoon dress, when made in walking length for general morning and street wear.



6322 Four-Piece Skirt, 22 to 30 waist.

The skirt is made in four gores with four additional panels. The side gores are lapped over into the front and the back and the panels are joined to their edges. The closing is made invisibly. When walking length is desired both the gores and the panels are to be cut off on indicated lines.

The quantity of material required for the medium size is 9½ yards 24 or 27; 5¾ yards 44 or 52 inches wide, width of skirt at lower edge 4¾ yards including plaits.

The pattern 6322 is cut in sizes for a 22, 24, 26, 28 and 30 inch waist measure and will be mailed to any address by the Fashion Department of this paper on receipt of ten cents.

Bargain Sale**WHITE WYANDOTTE HENS**

at \$1.50 and \$2.

each. All this year's breeders must go to make room for young stock. This is a rare opportunity to get the best for practically nothing. Special price on large orders.

EVELYN HEIGHTS FARM,

W. W. Thomas, Prop., Catlett, Va.

White Wyandottes Exclusively.

Bred for business. Will please farmer or fancier. Eggs from carefully selected stock, \$1.25 per 15; \$2 per 30. Circular free. I guarantee satisfaction.

J. H. YODER, Denbigh, Va.**WHITE WYANDOTTES.**

Eggs for hatching, \$1.25 for 15, \$2 for 30.

R. ELSAESSER, Meherrin, Va.**WALKER'S**
WHITE ROCKS.

Took 2nd cock; 1st and 2nd cockerels; 1st and 2nd pullets; 1st pen at Herndon, Va., show Jan., 1909. Strong competition. Am booking orders for eggs. \$1.00 and \$2.00 for 15.

C. M. WALKER,
Herndon, Va.

ROSE COMB

Rhode Island Red

Eggs from prize-winning stock for sale. 15 for \$1, or 3 sittings for \$2.50.

L. E. SMITH, Appomattox, Va.**MISS LOUISE V. SPENCER**

Blackstone, Va.

Pure-bred R. C. Rhode Island Red Eggs for hatching. Stock for sale.

Indian Runner Ducks

Greatest layers on earth; easy to raise, no lice. Prize winners Virginia State Fair and Poultry Show. Also R. C. Reds and S. C. B. Leghorns. Ducks sold out. Eggs in season.

MRS B. J. GRASBERGER,
Bumpass, Va.**O. I. C.**

Pigs not akin; also boars for sale. All eligible to registry.

D. WM. GOOD, Farland, Va.**Virginia's Premier Rival**
117983

A blue ribbon winner at Va. State Fair, 1908. He is one of the Great Boars of the Berkshire Breed, is not only a splendid individual but has proven himself a wonderful breeder. His pigs are large, even size no "runts" fine length, full of quality with best of Berkshire heads. Anyone in search of a top boar pig to head a good herd, write me. My pigs are out of large prolific sows of best breeding. Prices reasonable and stock must please you.

E. F. SOMMERS, Somerset, Va.

Please mention the Southern Planter.



Pure-Bred POULTRY

Eggs for hatching now ready. I can supply eggs from choice matings of the following breeds: Barred, Buff and White Plymouth Rocks; White, Brown and Buff Leghorns; Single and Rose Comb Rhode Island Reds and Black Minorcas; White, Buff Silver, Golden and Columbian Wyandottes; Silver Spangled Hamburg; White-faced Black Spanish, White-crested Black Polish, Cornish Indian Game, Buff, White and Black Orpingtons, all strictly pure-bred. Pekin Duck eggs, \$1.50 per dozen, \$5 per 50 and \$8 per 100. Rouen and Muscovy Duck eggs same prices. White Holland and Mammoth Bronze Turkey eggs 30c. each, as many as you want. Address,

JAMES. M. HOBBS,
1521 Mt. Royal Avenue,
BALTIMORE, MD.



PURE-BRED SHEEP.

Farmers, now is the time to select and engage your rams and ewes for next season. I have choice pure-bred Shropshire, Hampshire, Southdown, Dorset and Delaine Ram and Ewe Lambs, yearling and two to five year old Rams and Ewes I am booking orders now for shipment when wanted and the early buyer gets pick of flock and better values than the late buyers. Write to-day, and state your exact wants and I will be pleased to name you prices that are right for the quality I have. Address

JAMES. M. HOBBS,
1521 Mt. Royal Avenue,
BALTIMORE, MD.



Pure-Bred HOGS

I have fine lot of Spring Pigs of the following breeds and am booking orders for April, May and June shipment: Chester White, Yorkshire, Poland-China, Berkshire, Duroc-Jersey, and Tamworth, all of which are eligible to registry. I can mate pigs two, three and four months old in pairs and trios not akin. I have some grand sows 150 to 250 lbs. bred to farrow in May and June and some fine Service Boars from 150 to 300 lbs. and will make right prices considering the quality of the animals. Address

JAMES. M. HOBBS,
1521 Mt. Royal Avenue.
BALTIMORE, MD.

DUROC JERSEY SWINE

Best Blood. Nothing but the best individuals offered for breeders.

WARREN RICE, Vaucluse Sta., Va.
Frederick County.

TAMWORTHS.

The lean bacon hogs—pigs, bred sows, and service boars, all registered and of best blood.

BERKSHIRES.

Fine pigs and service boars entitled to registration and of blue ribbon stock. Am out of Poland-China pigs at present.

J. C. GRAVES, Barboursville, Va.

THOROUGHbred

BERKSHIRE BOARS, JERSEY BULL CALVES, DORSET BUCK LAMBS.

Sire of calves, **FLYING FOX,** 65456, son of Flying Fox, who sold for \$7,500 at the Cooper sale, 1902.

All stock in best condition and guaranteed as represented.

F. T. ENGLISH, Centreville, Md.

MEADOW BROOK FARM

FOR SALE—Choice lot of large **YORKSHIRE PIGS** males and females, not akin, from America and England's best breeding.

J. D. Thomas, Prop.
Round Hill, Va.

PREMIER BERKSHIRES

The large, lengthy, growthy kind. A fine lot of pigs, bred from first-class sows, ready for April delivery; prices right. **B. P. Rock** eggs \$1 for 15.

J. T. OLIVER, Allen's Level, Va.

Girl's Box Plaited Dress 6320. To be made with V-shaped neck and sailor collar or with high or square neck, long or short sleeves.



6320 Girl's Box Plaited Dress, 4 to 10 years.

Box plaited dresses made with the body portions and skirts in one are among the smartest that the little girl can wear. This model can be

QUALITY Poland-China.

Lest you forget we have the best breeding and individuals in P. C. blood in Virginia at farmers' prices. Young pigs and bred sows "the best ever."

A son of the "King of Them All" at head of our herd. Write us your wants.

H. B. BUSH & BRO.,
Michaux. Powhatan Co., Va.

EDGEWOOD STOCK FARM. DORSETS

I still have some choice Nov., Jan., and Feb. lambs left; better this year than ever. Will be pleased to quote you prices. Remember my lambs are from large strong boned ewes and have blood from the best flocks in this country and England. I am prepared to furnish grade ram lambs at ten dollars f. o. b. Let me hear from you; I can please you. Address

H. H. Arbuckle,
Maxwelton, W. Va.



Reg. P. Chinas, Berkshires, C. Whites. Large strains. All ages, mated, not akin. Bred Sows, Service Boars, Guernsey Calves, Collie and Beagle Pups and poultry. Write for prices and circular.

P. F. HAMILTON,
Cochranville, Chester Co. Pa.

TAMWORTH PIGS.

From Registered Stock of Fine Breeding.

Knowle of Cook Farm 5057 at head of herd. Sire 2nd prize boar at Royal Show, Eng., 1907., Dam, 1st prize gilt at same show, 1907.

VOLNEY OSBURN
Bluemont, Loudoun Co. Va.

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Glenara Stock Farm

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FOR IMMEDIATE DELIVERY

SHORT HORNS

3 Dual Purpose Short-Horn Cows, imported from Canada, all bred or with calves at foot, to Bessie's Lad, No. 273945. Prices from \$60 to \$100.

3 Short-Horn yearling bulls, price \$40 each.

4 Short-Horn yearling heifers, price, \$40 each.

DORSET SHEEP

2 aged Dorset rams, price, \$25 each.
1 yearling Dorset ram, price \$30

POLAND-CHINAS

15 Poland-China boar pigs, winter farrow, Price \$15 each.
15 Poland-China gilts, price \$15 each.

CLYDESDALES

1 yearling Clydesdale Stallion, by imp. "Evander," 1st and champion at Aberdeen, Scotland, 1st and Reserve champion at Chicago International, out of imp. "Lanark Queen," winner of 25 firsts and championships in Scotland and 1st and champion at the Chicago International. Price \$600.

1 yearling Clydesdale Stallion, by imp. "Evander," (see above) out of "Thorncliffe Duchesse" 1st at the Chicago International. Price, \$500.

DORSET SHEEP

Dorset ram lambs, by imp. "Romulus 2nd," 1st in England, and 1st at the Chicago International, out of ewes imported from Canada and England, many of them prize-winners. Prices, \$15 to \$25.

POLAND-CHINAS

Poland-China Boar Pigs and gilts of spring farrow, sired by the first and champion boar at the Virginia State Fair 1908, out of sows imported from the most fashionable western families. Price at weaning time, \$10 each.

Registration papers furnished with all stock. All shipments will be sent collect on receipt of check or money order, but all buyers may return any purchase with which they are dissatisfied at my expense and their purchase money will be refunded.

Place your orders now. These are Farmers' Prices.

JOHN BUTLER SWANN,

Marshall, Fauquier Co., Va.

WOODLAND DORSETS

We have some splendid yearling rams on hand and can make the best of selection; also a few very fine yearling ewes.

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

CHESTER WHITES.

Best hog on earth. I am now booking orders for spring pigs. Please let me have your orders. Satisfaction guaranteed.

S. M. WISECARVER, Rustburg, Va.

treated in several ways and really becomes three in place of one. It can be made with the sailor collar and shield, as illustrated, or it can be made with the square Dutch neck, or it can be made high with a standing collar, and it is equally available for all three styles. The sleeves, too, can be long or short. White linen with bands of rose color is the material illustrated and linen is admirable for just such dresses as this. but there are a great many other materials that are equally in style, indeed, almost every simple material can be treated after one style or the other. For the thinner fabrics, such as lawn or batiste, the dress without the sailor collar may be preferred, while made as illustrated, it is perfectly suited to poplin, linen, chambray and everything of a similar sort.

The dress is made with fronts and back and is laid in box plaits that give long and becoming lines, while the fulness is held in place by means of a belt. When the sailor collar is used the neck is cut out to indicated depth and the collar joined to its edge, the shield being arranged under it. When square neck is used the edge is simply finished with bands or trimming, and when high neck is used the standing collar is joined to it. The long sleeves are tucked at their lower edges, but the short ones are simply gathered into bands.

The quantity of material required for the medium size (8 years) is 5¼ yards 24, 4¼ yards 32, or 3¼ yards 44 inches wide, with ½ yard 27 inches wide for the bands.

The pattern 6320 is cut in sizes for girls of 4, 6, 8 and 10 years of age and will be mailed to any address by the Fashion Department of this paper on receipt of ten cents.

STOP A MOMENT

and consider how important it is that you keep your horses in good condition, especially if you are expecting to sell them. If you have a blemished horse, write for my free book telling how to treat them. ABSORBINE is performing wonders in removing puffs, thoroughpins, curbs, enlarged glands, swellings, etc. ABSORBINE at your druggist, \$2.00 a bottle, or delivered postpaid.

Made only by W. F. Young, P. D. F., 109 Temple St., Springfield, Mass.

A NEW HAY PRESS.

The Collins Plow Co., of Quincy, Illinois, have a new press this year. It is a horse-power press, full circle type, but it makes a distinct step onward. It does faster work than other presses of the kind because it is both a self feed and a three-stroke press; that is, there are three strokes of the plunger to every round of the team. This is the first truly successful press of this kind because the Collins Plow Company have

GALLOWAYS

Registered stock of both sexes for sale.

No orders taken for bulls except calves for future delivery.

Cows and heifers, all ages.

Sold on approval. I take all risks. Prices moderate.

Built like hogs, fatten like hogs. and make fine robes.

N. S. HOPKINS
Gloucester, Va.

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Will Virginia and North Carolina farmers be convinced that these are the cattle for them. Write for photos and records. We will interest you. Second prize bull at last International now at head of herd. Two prime cows now ready. Most any time you can buy a calf.

H. B. ARBUCKLE,
Maxwelton, W. Va.

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BERKSHIRES

Fifty (50) Berkshire Hogs for sale. The best blood in the country.

Send for catalogue and price list.

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Devon Herd Established 1884. Hampshire Down Flock Established 1880.

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BULLS AND HEIFERS,
HAMPSHIREDOWN SHEEP,
RAMS AND EWES.

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Ingleside Herefords

Polled and standard bred—200 head in herd. All ages, both sexes. Write for catalogue and prices. Inspection invited. Farm near Alderson, W. Va., on C. & O. R. R. Address.

W. Anderson, Blaker Mills, W. Va.

VALLEY FRONT FARM.

Sassafras, Gloucester Co., Va.

I have a nice lot of registered Hereford Bulls and Heifers, for sale at farmers' prices. Also a number of grade Heifers and cows. My herd represents best strains and choice individuals.

Wm. C. Stubbs, Prop.

Walnut Hills Herd.

Twenty-five Registered Angus females and two bulls for sale.

J. P. THOMPSON, Orange, Va.

JERSEYS

Combination and Golden Lad. For sale 46 Cows, 6 Heifers, 25 Bulls.

S. E. NIVEN, Landenberg, Pa.

Bargains in REGISTERED Live Stock

I am going to offer some bargains in pure-bred stock for the next sixty days, and anyone wanting a good Short Horn Bull, or a Percheron Stallion colt or a stallion old enough for service; or a registered Saddle Stallion, can save money by coming to the Lynnwood Stock Farm and selecting a "herd header."

I can also supply the wants of anyone looking for Berkshire pigs of either sex.

I will also sell a few Percheron Stallions after July 1st, that are at present making seasons in the stud.

JOHN F. LEWIS

Lynnwood, Va.

Station, Lewis, N. & W. R. R.

Elkton Stock Farm

Breeders of pure-bred, registered Hereford Cattle and Berkshire Hogs. Young stock for sale at all times at reasonable prices. All statements and representations guaranteed.

Forest Depot, Virginia.

TWELVE FINE

JACKS

From three to six years old for sale at reasonable and accommodating terms or will exchange for mules.

H. C. LESTER, Martinsville,
Henry County, Va.

JACKS AND Saddlers

The Cook Farms have 175 head of registered jacks, jennetts and saddle horses. One hundred head of these must be sold by the 15th of May. If you want a bargain in a good jack or stallion write quick or visit the Cook Farms.

J. F. COOK & CO., Lexington, Ky.

DUROC-JERSEY and TAMWORTH
SWINE.

Sterling Stock Farm,

R. W. Watson, Petersburg, Va

FOR MORGAN COLTS

and Fillies and High-Bred Fox Hound
Puppies. Address,

Dr. JOHN D. MASSENGILL,
Blountville, Tenn.

learned how to make an automatic self feeder which feeds fast enough to make a three-stroke machine a success. This three-stroke, self-feed, full circle press is a hummer at its work. It is one of the best of its kind turned out by the Collins Plow Company and they are sort of headquarters for hay presses. They make eighteen styles and several sizes of each. If you are a hay maker you will be interested in it. It is described along with all the other "Eli" presses in the Company's new catalogue. Better send for a copy and learn all about it. The book is free, but mention this paper when you write.

PRESERVING WOODWORK.

Wood Preservation, or the treatment of lumber, with some effective preparation so as to prevent premature rot and decay, is yearly becoming more of a necessity to the farmer as well as the railroad company, factory or mine owner. All recognize it as a means for reducing lumber bills and keeping the annual maintenance charge down to the proper level. Prices of lumber have risen enormously within the last ten years, the increase on some varieties amounting to over one hundred per cent. Preservative treatment offers a means to offset this by greatly prolonging the natural life of the woodwork.

On the farm an efficient method of wood preservation is of untold value. There is woodwork of every kind which needs protection. Firstly, shingle roofs and sidings. Efficient treatment will add from 100 to 200 per cent. to their natural life. Then there is the silo which requires preservative treatment, so as to prevent the moisture and gases formed in the fermentation of the ensilage from destroying the woodwork within a few years. As a matter of fact, silos are nearly always treated with the best preservative obtainable. Another large item of expense is the replacing of rotted fence posts or the building of new fences. Posts can be made to last from two to four times their ordinary service, by applying a first-class preservative. The cost of treatment per post is very low, so that the saving which can be secured is very large. Furthermore, sills, joists porch floors and their understructures, stable floors, well platforms and curbing and other woodwork placed on or near the ground or exposed to much moisture can be treated to great advantage.

The famous German wood preserver, "Avenarius Carbolinum," on the market since 1875, is recognized by leading authorities everywhere to be the most efficient, practical, economical preservative paint for all farm uses. It is a thin, oily, nut-brown liquid of great penetrating power, and is applied either with a brush, with

Horses and Mules at a Bargain.

One handsome black mare, 5 years old; extra fine driver, with plenty of style, beautifully shaped; easy to keep; works well everywhere.

One light bay mare, 5 years old, weight about 1,050 lbs., height 15½ hands. Gentle enough for a family horse. Handsome and stylish enough to please the most fastidious.

One mahogany bay mare, 6 years old, weight about 1,000 lbs., height 15½ hands. A reliable worker anywhere.

A handsome and stylish driver. These animals are all fine brood mares and will be bred free of charge to superb Hackney stallion. They are all home raised with good blood in them and will be sold under a full written guarantee.

One pair of well matched black horse mules, 2 years old, blocky and well shaped. This pair of fine two year olds will be sold at a special bargain if bought at once.

WM. M. WATKINS,
Saxe, Charlotte Co., Va.

HACKNEYS

For Sale: 4 year old Chestnut Stallion, 1st. prize as a 3 year old; three 2 year old Stallions; some fine fillies, elegantly bred, by such horses as Matchless Dane and Bagthorpe Sultan.

Aldie Stud and Stock Farms
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"Breed Only to the Best" RED COURT 38712

A standard-bred Kentucky Stallion. A Futurity Race Winner. 2 year old trial 2:26, splendidly bred, grandson of Geo. Wilkes.

Even common mares bred to a horse of this kind find ready sales as drivers and roadsters.

Terms: \$15 for season, usual return privilege. A sure foal getter. Mares sent from distance receive our best attention. Write for pedigree.

BIRCHLAND FARM, News Ferry, Va.
Send us your orders for Aberdeen-Angus calves. Some beauties on hand now.

ONE PAIR

SORREL COLTS

Four years old, well bred and well matched, weight about 1,000 lbs., 16 hands high, drive nicely, perfect beauties. Write

C. E. DICKINSON, Chilesburg, Va.

SHETLAND PONIES

A few choice Geldings, Mares and Stallions left. As the demand is great, this supply will not last long. All registered.

MONTROSE SHETLAND PONY FARM,
Cartersville, Va.

WANT ADS.

Rates 2 cents per word. Cash with order. Initials and figures count as one word; 25 cents minimum charge.

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BARRED PLYMOUTH ROCKS (Cypers and Thompson strains) eggs from pens containing birds with egg records of 120 to 175 per year. \$1.50 and \$2 per sitting of 13. Cocks heading \$2.00 pens are exhibition birds from egg laying strain, fit to show in any company. Satisfaction and a fair hatch guaranteed. Mountain View Poultry Farm and Kennels, Glenvar, Va.

BERKSHIRE PIONEER POULTRY Yards, offer Golden Pencilled Hamburgs, White Crested Black Polish, 13 eggs, \$2; Salmon Faverolles, 13 eggs \$3. Silver Spangled Hamburgs, Partridge Wyandottes, Golden Seabright Bantams, Cornish Indian Games, Pearl Guineas, White Guineas, Pekin Ducks, Indian Runner Ducks, 13 eggs \$1. Circular. A. E. Parsons, Berkshire, N. Y.

SPECIAL NOTICE—TO EVERY READER of Southern Planter that will send me 25 cents and a self-addressed stamped envelope, I will send them a perfect, true and tried recipe telling how anyone can make enough harmless preparation for the cost of 50 cents, to keep 100 dozen eggs perfectly nice and fresh for twelve months. Mrs. Geneva Lancaster, Route 1, Castalia, N. C.

ROSE AND SINGLE COMB RHODE Island Reds of the very best blood, prize-winning strains. Twenty fine cockerels that must go, \$1 each; Trios, \$2.70; twenty laying pullets at \$1.50 each; fresh fertile eggs, 15 \$1; 30, \$1.75; 50, \$2.50; 100, \$4.50, and safe delivery guaranteed. Thos. S. Turner, Dickens, Va.

S. C. W. LEGHORNS, 50 ONE AND two year old hens and six cocks for sale to make room for growing stock, also a few early March pullets that escaped the toe punch. Eggs at reduced price. W. H. Densmore, Route 3, Roanoke, Va.

INDIAN RUNNER DUCKS—IN 1907 I purchased stock of noted breeders who had just won 1st honors at N. Y. and Chicago Poultry Shows. Will sell a few trios of these for \$3.50. Eggs \$1 for 11, \$2 for 25. My ducks have ideal range. Reports on hatches for this season show over 90 per cent of eggs fertile. W. W. Henry, Jr., Broad Run, Farquier Co., Va.

FRESH, FERTILE EGGS FROM LINE Bred Barred Plymouth Rocks. Bred for winter laying, correct markings. Eggs \$1 for 18; \$1.50 for 36. After June 15th Indian Runner Duck eggs \$1 for 15. Carefully gathered, packed well, satisfaction guaranteed. Mrs. M. F. Gooch, Somerset, Orange Co., Va.

RARE BARGAIN IN BREEDING PENS of the following breeds: Light and Dark Brahmas, White and Barred Rock, R. I. Reds, White, Buff, Silver Lace, Partridges and Columbian Wyandottes. Eggs reduced; 25 varieties. Write your wants to-day. Clarence Shenk, Luray, Va.

PHEASANT EGGS—ENGLISH RING-neck, finest stock, \$2.50 per 15. Pamphlet instructions with order. Blue-ridge Pheasantry, Bedford City, Va.

BUFF ORPINGTONS AND BROWN Leghorns, Single Comb. Eggs balance of the season, \$1 per 15. From prize winners. Bred to lay and win. Summit Poultry Yards, 2205 Park Ave., Richmond, Va., J. H. Thompson & Co., Props.

BEAUTIFUL ROSE COMB RHCDE Island Red chicks, from prize-winning stock, for sale at two months old, 40 cents each. Intended to start a yard of Reds but have changed my mind, hence I offer them for sale. Mrs. M. F. Gooch, Somerset, Va.

CHINA AND ENGLISH PHEASANT Eggs, expressage prepaid, \$3 dozen; 50 eggs, \$9. Golden \$4.50 doz. Easier raised and more profitable than chickens. Write for circular. Simpson's Pheasant Farm, Corvallis, Ore.

WHITE WYANDOTTES, BEAUTIFUL and useful; fine in color, comb and shape. Hardy farm raised which lay. Bargain in eggs at \$1 per 15; \$5 per 100. C. R. Moore, Route 5, Staunton, Va.

POULTRY, ETC., (Continued).
"REDS" BOTH CCMBS FOR SALE at a sacrifice now for bargains. In stock as good as the best. State wants. Egg prices reduced. W. Shook, McGeheysville, Va.

WHITE WYANDOTTES, PRIZE-WIN-ners and splendid egg-producing strain, 20 eggs \$1. Mammoth Bronze Turkeys from show winners and best strains, 12 eggs, \$1.25. Sunnyside Farm, Jonesville, Va.

EGGS FOR HATCHING. WHITE Rocks exclusively. Fisher's direct. Pen No. 1, \$2.50 per 15; Pen No. 2, \$1.50. Brooke B. Gochner, Upper-ville, Va.

WHITE WYANDOTTE EGGS FROM pure-bred, prize-winning and trapped stock. Sitting 15, \$1. Jno. Stokes Prop. Farmville Poultry Yards, Farmville, Va.

PURE-BRED WHITE WYANDOTTES, first class stock in every respect. Eggs in season \$1.50 per sitting. O. O. Harrison, Mt. Ulla, N. C.

FOR SALE—S. C. W. LEGHORNS, Wyckoff strain, one cockerel and six laying pullets for \$6.50. Margaret Moncure, Rectory, Va.

LIVE STOCK.

REGISTERED BERKSHIRE PIGS, none better. Longfellow, Lord Premier and Blenheim blood, Jersey Cattle. Prices and treatment right. Clarmonth Farm, Chas. P. Macgill, Proprietor. Address Chas. and W. D. Macgill, Mgrs., Pulaski, Va.

POLAND-CHINA PIGS FOR SALE.—Perfection strain, perfect pictures, for June delivery. Prices right, no runts. Also an exceptionally fine Percheron Colt, 13 months old. Will make good stallion. Good shape, iron gray; weight 750 pounds. H. L. Hayes, Bealeton, Va.

POLAND-CHINAS—THE LARGE MEL-low kind; sunshine strain; grand lot of male and female pigs that must go—\$7 each at eight weeks old. They are good, smooth, heavy-set pigs, with good points. Thos. S. Turner, Dickens, Va.

FOR SALE—TWO PURE - BRED Polled Angus Bull Calves, nine and eleven months old; will be sold cheap. T. A. Luck, Croxton, Va.

SEE BEFORE YOU BUY. WRITE your wants of large Yorkshires. I will send photograph and price that will surprise you. W. E. Stickley, Strasburg, Va.

FOR SALE OR EXCHANGE—ANGUS Cattle for first-class trotting bred stallion or Percheron mares, Hackney mares and colts for sale cheap. All stock registered. Myer & Son, Bridgeville, Del.

SEVERAL YOUNG REGISTERED AB-erdeen Angus bulls. Sired by Gold Nugget 26957, who was never beaten in the show ring, at farmers' prices. David I. Jaynes, Massaponax, Va., Member of the Aberdeen Angus Breeders Association.

FOR SALE—BERKSHIRE BOARS, ready for service. Male and females 8 weeks old, all from large, fine animals. Prices reasonable for first-class stock. Evergreen Farms, W. B. Gates, Prop., Rice Depot, Va.

HEREFORD CATTLE FOR SALE. A herd of pure-bred and graded Herefords, headed by Gazetteer II. All young and highly bred, for prices, etc., write Mrs. Thos. H. Walker, Pemberton, Va.

PONIES—SEVERAL SHETLAND AND others for children, well broken. One pair matched roan mares, 5 years, kind; single and double. J. M. Cunningham, Brandy Station, Va.

REGISTERED GUERNSEY CATTLE for sale from the best milking strains and Advanced Register stock. Prices moderate. G. M. Wallace, Falmouth, Va.

FLEETFORD FARM, BEDFORD CITY, Va., I am offering a few choice Berkshires from registered stock at reasonable prices. Dr. M. A. Crockett.

WANTED FOUR TO SIX REGISTER-ed Yearling Shorthorn Heifers, from good milking strain. Must be good ones at reasonable prices. Address Box 1, Somerset, Va.

FOR SALE—\$15 LAMBS FOR \$12.95. Sired by Dorset Buck Glenanow 12. F. M. Merriwether, Route No. 4, Lynchburg, Va.

FOR SALE ABOUT SIXTY SHEEP and Lambs; also Pure Bred Berkshire Sows and Pigs; cheap if taken soon. E. E. Thompson, Magruder, Va.

DORSET BARGAINS—REGISTERED and grades. Exceptional prices to prompt buyers. H. Armstrong, Box 244, Mt. Jackson, Va.

FOR SALE—BERKSHIRE GILTS, Best breeding; prices reasonable. Satisfaction guaranteed. J. W. Adams, Addison, Va.

ONE RED POLLED BULL CALF WELL bred at prices right. Also S. C. W. Leghorn eggs \$1 per sitting of 15. T. C. Morton, Rice Depot, Va.

REGISTERED PERCHERON MARES in foal or with foal at foot. Birdwood Stock farm, Birdwood, Va.

FOR SALE—REGISTERED PERCH-eron yearling stud colts. Birdwood Stock Farm, Birdwood, Va.

FOX, DEER, COON AND OPOSSUM hounds and pups, \$3.50 to \$15 each. For bargains write me. E. F. Wilmouth, Shelbyville, Ky.

YORKSHIRE PIGS 7 WEEKS OLD, \$6; Berkshire pigs 7 weeks, \$5. L. B. Johnson, Charlottesville, Route 4, Va.

WANTED REGISTERED RED POLL Bull. Give age, size and lowest cash price. O. C. Hooker, Amelia, Va.

A Neat Binder for your back numbers can be had for 30 cents. Address our Business Department.

DOGS, PET STOCK, ETC.

PURE-BRED BELGIAN HARES. Some nice stock for sale. Write for particulars. Tillman E. Jeter, FACES, Va.

FOR SALE—TAME WHITE RATS with beautiful eyes, 50 cents a pair. Ida Bowles, Cardwell, Va.

FOR SALE—3 WELL-BRED POINTER pups nine weeks old. Brown with white markings. E. Woolston, Upperville, Va.

SHEPHERD GYP, ADVERTISED LAST month, sold. First \$5 gets choice of two others. One Shepherd, one Collie, ready for training. Jack Word, Christiansburg, Va.

FIVE PURE BRED SETTER PUPS for sale, two months old. Turkey stock. V. S. Kidd, Box 128, Scottsville, Va.

REAL ESTATE.

FOR RENT OR WORK ON SHARES— a fine farm especially adapted to dairying, stock breeding and trucking. Near splendid market for all dairy and farm products. Station, post office, express office, church and school on farm. Excellent neighborhood. A bargain for the right man. Apply Oak Hill Stock & Dairy Farm, Wenona, Va.

FARMS FOR SALE. TWO EXCEL- lent farms in Lunenburg County 2½ miles south of Victoria on the Virginia Railway. One contains 209 acres, eight room dwelling, necessary outhouses. The other contains 333 acres good low grounds with two streams running through it. For full information apply to John Stokes, Farmville, Va.

FOR SALE—40 ACRES VALUABLE Coal Land in West Virginia, underlaid with famous New River coal. Worth \$100 per acre. Price for quick sale \$50 per acre or will exchange for Virginia farm worth from \$1,500 to \$2,500 and give or receive the difference. S. B. McBride, Tipton, W. Va.

WANTED—FARMS AND BUSINESSES everywhere. Don't pay agent's commissions. We find you cash buyer direct. Describe property fully naming lowest price. Get our free advice as to best property to buy. American Investment Association, 518 20th Ave., North, Minneapolis, Minn.

FINE ESTATE FOR SALE—THREE sets of handsome buildings; residences contain 10, 9 and 8 rooms; five other settlements. Beautiful situation, good grazing and farming land, 1,200 acres. Will divide. Price \$25; close to town. A. H. Clement, Appomattox, Va.

WANTED—IMPROVED FRUIT FARM, ten or more acres standard bearing winter apples; some good tillable land. Blue Ridge section preferred. Give lowest cash price; description—location, elevation, exposure, etc., Buyer, care Y. M. C. A., Washington, D. C.

WANTED—A FARM OF ABOUT 200 acres. State nature and lay of land, buildings, fences, terms, etc. Address Lock Box 204, Terre Alta, W. Va.

FIVE- AND TEN-ACRE TRACTS OF Fine Garden Land for sale on easy terms. W. H. Garrett, Arcade, Norfolk, Va.

FINE FRUIT LAND. 94 ACRES CLOSE to R. R., 650 trees set. Will make fine summer home that will soon pay a handsome dividend. W. H. Adkins, Swoope, Va.

20-ACRE HOME, TWO HOURS DRIVE from Washington; new buildings; soft water, springs, brook, bargain. Correspondence solicited. A. Jeffers, Burke, Va.

WANTED TO EXCHANGE CITY LOTS in Gulfport, Miss., for Shetland ponies, collies, blood hounds, or fancy poultry. J. D. Stodghill, Shelbyville, Ky.

WANTED FARM IN VIRGINIA SUIT- able for dairy, near city, railroad, or salt water. Give full description first letter or circular. R. F. D., Box 19, Laurel, Md.

WANTED TO BUY A BLUE GRASS Stock and Grain Farm of 300 acres or over. Write what you have to John A. Gretter, Gullford College, N. C.

POSITIONS HELP.

WANTED POULTRYMAN, MARRIED. Must be man of experience in all branches of poultry, and good worker; one who has good judgment in building up a promising poultry plant. Permanent position, and good home with garden to right party. Salary \$35.00, with increase after making business successful. References required. Virginia, care Southern Planter.

SITUATION WANTED, MALE FARM Manager, experienced German, 35, married, no children, wants position. Address D. K. 100. Care Southern Planter.

WANTED SITUATION NEAR RICH- mond, as working foreman by young married man. Address H., care Southern Planter.

POSITION WANTED BY FARM MAN- ager. Thoroughly reliable and competent to take entire charge; used to stock and all kinds of machinery. G. S., care Southern Planter.

SEED, PLANTS, Etc.

NICE BRIGHT SOJA BEANS FOR sale. Price \$1.10 per bu. Also Cow Peas, \$1.25. Samuel A. Windley, Lake Landing, N. C.

MISCELLANEOUS.

WANTED—TO BUY ALL KINDS Wild Birds and Animals, particularly Tame Deer, Wild Turkeys, White Squirrels, Peafowl, Otters, Red Foxes, Gray Squirrels, Partridges, Pheasants, Beaver. State price when writing. Dr. Cecil French, Naturalist, Washington, D. C.

I HAVE \$4,500 STOCK IN THE WIN- dow Glass Factory in Clarksburg, W. Va., and a \$4,000 dwelling house I would like to trade for a farm of same value near Richmond, if possible. Will furnish description on application. Jules Mayeur, South Charleston, W. Va.

WOODWARD & SON, RICHMOND, Va. Lumber, Laths, Shingles, Sash, Blinds, Doors, Frames, Mouldings, Asphalt Roofing. Yards and buildings covering ten acres.

WANTED—RELIABLE TENANT, FOR 200-acre stock farm in Southwest Virginia. References required concerning industry, management and honesty. Write fully to M. care Southern Planter.

WANTED A SECOND HAND STUMP Puller. F. L. Huggins, P. O. Box 314, Wilmington, N. C.

THRESHING MACHINE FOR SALE. A new (never used) J. I. Case, 18x 22in. steel encased wheat thresher, separator and cleaner in our hands for sale. Price \$175. A great bargain. Ashton Starke, Richmond, Va.

WANTED—ABOUT 100 LBS. OF FLAX ready for spinning. W. Wade, Oakmont, Pa.

Farms for Sale.

\$10,000.—Contains 346 acres, 50 acres timber, balance in blue grass sod, excepting some small crops. Good orchard consisting of standard varieties of apple and pear trees. Soil is cecil or chocolate clay. Watered with mountain springs and streams. Is conveniently divided into fields, and is substantially fenced with woven wire and locust post. Situated right at railway station. Incorporated town at foot of mountains. Macadamized road divides the farm and passes directly in front of lawn and dwelling. Improvements: 9-room Colonial dwelling, one bath-room—hot and cold water in bath and pantry; front and back stairway, two halls and reception hall; cellar under entire dwelling, out-kitchen, servants' room, ice-house. Dwelling is surrounded with large and sloping lawn; delightful shade, consisting of numerous varieties of choice trees. Stone entrance. Two large barns, about 40x60 feet, in perfect condition; two tenant houses, hog house, corn house, chicken house, implement house and wood house are among the outbuildings.

MUST BE SOLD TO SETTLE AN ESTATE

\$3,500.—Contains 120 acres, 25 acres in timber, balance in grass and under cultivation. Situated on Potomac River, 3½ miles of railway station, in Loudoun county, Va. Is well fenced and conveniently divided into fields. Improvements: Eight-room dwelling, porches, shade, large lawn; new barn 20x26 feet; spring house, garden, small fruits.

\$3,200.—Contains 90 acres, all cleared, and directly adjoins 120-acre farm above described; is without improvements; situated right on Potomac River.


Send for my Catalogue of Northern Virginia farms. I would be glad to see you at my place by appointment.

GEORGE W. SUMMERS,
Real Estate and Loan Broker,
Sterling, Va.

1 MAN BALES 1 TON 1 HORSE BALES 1 HOUR

On our wonderful new Daisy SELF-THREADING, self-feeding, one-horse hay press. It is the only one on the market on which one man can do all the work. This first successful self-threading device—greatest time saver ever. Condenser and open bars on bale hopper. Increase capacity and prevent fork catching. Five days' free trial. Write today for prices and circulars.

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THE BEST PLACE FOR BLOOD AND REGISTERED
BERKSHIRES

White Leghorn, all breeds of Plymouth Rock, Black Minorca and Rhode Island Red Fowls. Eggs from these pure-blooded birds for sale.

DR. W. L. NOLEN, PROPRIETOR, SALEM, VA.



a sprayer, or by immersion of the lumber to be treated. Being a strong antiseptic, its use can be recommended in stables, pens and coops for sanitary reasons. In fact, it is known as the most radical remedy against chicken lice, mites and other vermin. Full information can be obtained from Bulletin 26. Mailed upon request by the Carbolineum Wood Preserving Co., 346 West Broadway, New York, N. Y.

SCRAP CORRESPONDENCE.

Editor Southern Planter:—I herewith enclose an interesting clipping from a Roanoke paper which may interest you. K.

"At the Roanoke Fair of 1906, Mr. David Craft, who lives at Eagle Rock, Botetourt county, bought an English Berkshire pig from Dr. J. D. Kirk, of this city. January 10th last, the hog was killed and weighed 997 pounds net. It is not known whether Mr. Craft has another hog of this class, but, if he has not, and would purchase a few more, hog raising would pay better than most any business."

Omderman, Sudan, Africa.

Editor Southern Planter:—Enclosed find \$1.00, for which please send to my address one copy of the Southern Poultry Guide.

I have one hen that travelled 1,500 miles in December, 1908, arriving here on the 15th and began laying January 3, 1909, since which time she had laid seventy-five eggs to date—April 9th. J. K. GIFFEN.

Charlotte, N. Y.

Editor Southern Planter:—I think you print the best also the most farm knowledge for the money of any paper of which I know. It should be read and your advice followed by all the Southern farmers and I am sure that a lot of us Northern farmers would be better off by far if we read more of such farm literature as your journal. C. HURLBURT.

Blackstone, Va.

The tourist left the train at every station and went ahead to the baggage car to ask if his trunk was safe. "Are you quite sure," he asked the baggage man for the sixth time, "that my trunk is safe?" "Begorry, I wish that the Lord had made ye an elephant instead of an ass," was the exasperated reply, "and then you'd always have your trunk in front of you."

GLENBURN BERKSHIRES.

Herd headed by Lord Premier 3d, 96773, Predominant 94342 and Eminent Premier 118253. Lord Premier 3d is a great son of Lord Premier 50001 and a brother in blood to Lord Premier's Rival. Predominant is a very handsome son of the grand champion Premier Longfellow 68600 and Eminent Premier is a grandson of both Lord Premier and Masterpiece. Our sows are bred along the same lines and are superb individuals.

Also Forfarshire-Golden Lad Jerseys. Write for catalogue.

DR. J. D. KIRK,

ROANOKE,

VIRGINIA.

CHOICE BERKSHIRE PIGS of the BEST BLOOD and QUALITY

If you want a pair or trio of pigs from the best and most prolific strains of Berkshires, write me. My sows are of the best blood of the breed, being daughters and granddaughters of Premier Longfellow, Baron Duke the 50th, and the noted Huntress.

Their litters are by my great herd boars, Hunter of Biltmore 3d, and Earhart's Model Premier.

These boars are a big, fancy type, are of the best prize-winning blood of the world and their pigs are the kind that will make you money.

Let me quote you prices on first-class pigs and ready-for-service boars.

I ship everything subject to your examination and approval and my prices are reasonable. Address,

D. E. EARHART, Bristow, Va.



For Sale

BERKSHIRE GILTS

JERSEY BULL

Forest Home Farm,

Purcellville, Va.

Berkshires For Sale.



One of the best herds in the East.

Bred Sows, Gilts, Young Boars and
igs for Sale.

All stock shipped as represented or
money refunded.

W. R. FENSOM,
Richmond, Va.

Birdwood Farm Percherons

IMPORTED AND HOME BRED MARES AND STALLIONS

We have the right kind; big, heavy-boned horses.

Our stud includes mares up to 2,200 pounds in weight.

Come and select what you want. Salesman always on the farm.



GAULATTE 48947 (71858) 1st prize 2-year-old mare, International 1908.

YEARLING COLTS,
MARES OR STALLIONS

AT

\$200 to \$300

PRICES ON MARES

FROM

\$375 to \$1,000

COLORS

BLACKS & GREYS

All Stock Registered
in Percheron Society of America

BIRDWOOD STOCK FARM, Birdwood, Albemarle County, Va. [2 MILES WEST OF CHARLOTTESVILLE]



FOR PROTECTING CATTLE AGAINST BLACKLEG.

SIMPLE—SAFE—SURE.

NO DOSE TO MEASURE.

NO LIQUID TO SPILL.

NO STRING TO ROT.

KRESO DIP FOR ALL LIVE STOCK

Kills Lice, Mites and Fleas. Cures Mange, Scab, Ringworm. Disinfects, Cleanses, Purifies.

ANTHRAXOIDS

A SAFE ANTHRAX VACCINE

FOR PROTECTING HORSES, MULES, CATTLE, SHEEP, GOATS AND SWINE AGAINST ANTHRAX.

WRITE FOR FREE BOOKLETS UPON THESE PRODUCTS.

BRANCHES:
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DEPARTMENT OF ANIMAL INDUSTRY.

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WOODSIDE BERKSHIRES

EVERYTHING SHIPPED ON APPROVAL.

IT WILL PAY YOU TO READ THIS CAREFULLY.

We are now offering a grand lot of Pigs
for June delivery.

These pigs are sired by our three great boars, Charmer's Premier 94553, two years old, weight, 720 pounds; Master Lee 79379, weighing over 700 pounds; and Lustre's Carlisle 72057, and out of royally bred sows weighing from 500 to 600 lbs. each.

We can always furnish pigs not akin. In order to show our confidence in what we offer and insure satisfaction to our customers, we ship on approval. You need not send check until after you receive the pigs, and if they are not entirely satisfactory in every respect, you can return them at our expense, and it costs you absolutely nothing. We leave it to you whether this is a fair proposition.

Address,

WOODSIDE STOCK FARM, R. S. Farish, Prop., Charlottesville, Va.

A JOURNAL OF EASTERN TRAVEL.

Article No. 7.

Travel stained and weary, we reached our hotel in Tokyo at 8 o'clock in the evening, and received our first mail. Among our foreign letters were cards to a reception given to Admiral Togo that very evening at the American Legation. We debated for a time whether to go to bed or to the reception, but decided on the latter as more exciting. We still had to get our dinner and have our trunks brought, so it seemed doubtful whether we could get ready in time, but we finally did and drove off to the reception, arriving very late and finding the court yard crowded with carriages ahead of us. As we went up to the cloakroom, two Japanese ladies in magnificent French ball dresses and slippers, with tiaras or diamonds in their hair were coming down, the very picture of absurdity. Foreign clothes do not become the Japanese women at all. Their figures are made for draperies. We had to worm our way through ranks of Japanese officers, in glittering uniforms, covered with orders, to speak to our host and hostess.

The military attache introduced us to Togo, who received alone in the library. He is a shy, retiring little man, very dark, like all the fighting men of the Satsuma province. His eyes are very bright, and his expression dignified and pleasing. The Japanese present on this occasion had the delicate features of patricians, unlike the squat, Mongolian look of the coolies. The ladies were quite light colored, thought not always pretty, as Japanese women fade very early. But they are always agreeable, as that is the end and aim of their existence. They are beginning to realize their limitations, more particularly those of

BILTMORE

JERSEY BULL CALVES AND HEIFERS

We have just made a fresh selection of extra good young things from our herd for sale, and we offer at most

REASONABLE PRICES

Heifers of the highest class of all ages from HEIFER CALVES TO BRED HEIFERS and a few well bred

BULL CALVES OUT OF TESTED DAMS.

POULTRY.

Our 1909 illustrated poultry list is now ready. Write for it.

BILTMORE FARMS,

R. F. D. No. 2,

BILTMORE, N. C.

REDUCED PRICES ON

BRED BERKSHIRE GILTS



for next 30 days only.

The panic drove hundreds of breeders out of business. The next twelve months will see them tumbling over one another to get back—as the demand and prices advance. I staid in the boat, kept up my herd and advertisements, hence am well equipped for orders. My Berkshires are as fine as the world can produce. Price in easy reach of everyone. Scores of pigs ready for shipment.

THOS. S. WHITE,

Fassifera Stock Farm.

LEXINGTON, VA.

IF YOU WANT THE BEST HOG

Buy from those who give their sole attention to the production of the greatest Berkshire Type
—WE DO.—

Our herd comprises the most splendid lines of breeding and individuals that money can buy or experience develop in American and English Bred Berkshires.

"LORD PREMIER OF THE BLUE RIDGE," 103553, the greatest living boar, heads our herd. If you are interested, write.

THE BLUE RIDGE BERKSHIRE FARMS, ASHEVILLE, N. C.

MORVEN PARK ESTATE.

Property of WESTMORELAND DAVIS, Esq.

Large White Yorkshire Swine

THESE ARE THE BACON PIGS OF ENGLAND AND THE WEST. THEY ARE HARDY AND PROLIFIC. BOARS AND GILTS FOR SALE.

Registered Guernsey Cattle.

THESE CATTLE ARE ESPECIALLY USEFUL TO DAIRYMEN REQUIRING HIGH PER CENT. OF BUTTER FAT AND FINE COLOR AND FLAVOR OF PRODUCT TO SUPPLY THE BEST CLASS OF CUSTOM.

Bulls Only for Sale

Registered Dorset Horn Sheep

THESE SHEEP WILL BRING EARLY LAMBS WHEN PRICES ARE HIGH. TRY THEM. RAMS FOR SALE.

WE ARE OFFERING A FEW GRADE DORSET EWES FROM AN ADJOINING FARM WHICH, UPON ARRANGEMENT, CAN BE TOPPED BY OUR PURE BRED BUCKS. THIS IS AN EXCEPTIONAL OPPORTUNITY.

REGISTERED PERCHERONS

TWO-YEAR-OLD STALLIONS AND COLTS FOR SALE.

ALL OF OUR STOCK IS OF THE BEST CLASS, AND FROM STRAINS ESPECIALLY SELECTED AND IMPORTED BY US.

For further particulars, apply to

Live Stock Dept., Morven Park Estate

LEESBURG, LOUDOUN CO., VA.

ROSE DALE HERD ABERDEEN-ANGUS CATTLE



We offer to the farmers and breeders of the East strictly choice Young Registered Bulls from weanlings to serviceable age. They are of the straight, broad-backed, low-down, compact, blocky type. Many of them show ring animals. They represent the blood of Master II., of Meadow Brook; Gay Lord, Jr.; Heather Lad II., Zaire V., Ermine Bearer, Blackbird of Corskie IV., Black Abbott, Abbottsford, Coquette X., Etc.

They are well grown out, in thrifty condition, but not pampered. Come and see them or write us your wants. Prices right. We can please you. Angus cattle are our specialty. We raise no other stock but give them our undivided personal attention.

To avoid inbreeding we offer an exceptionally good herd bull. Write for particulars. Address

ROSEDALE STOCK FARMS, JEFFERSONTON, VA.

foreign education, and are trying to live on a broader plane. Still the old system has its advocates. All the foreign men we knew said they liked the Oriental way of keeping women down, and wished they could introduce it in their own country.

To return to the reception, the East and the West blended harmoniously and met each other in the most gracious way. One young Japanese, evidently new to foreign ways, would fain have slid from his chair to the floor and, discarding knife and fork, used chopsticks, but decorum forbade. As at all diplomatic functions there were elaborate flowers, music and supper, and throngs of interesting people. Besides the "corps diplomatique," there were officers, artists, writers and tourists. We had the usual long wait for our carriage at end, but we did not realize how tired we were until we were tucked away in our little white beds at the hotel. The Imperial Hotel where we stayed is a large, grey structure in the new part of Tokyo, near pretty Hibiya Park, and the Nobles Club. The Daimyo's mansion or Yashiai, which formerly stood in this part of the city, has been pulled down to make room for modern improvements, but the grey walls and grass covered

Someone is going to get a first-class Angus herd header at

SUNNY HOME FARM

this coming fall. Sire a Jilt, some of the great Erica bull Imported Equestor.

Dam sired by the world-famous Gay Blackbird (the sire of the \$3,050 Gay Lad that was champion of America during 1895-96). Second dam, a Nose-gay daughter of the great Beau Bill, champion during 1894 and sire of the dam of Vala, probably the most popular Angus female ever in the American Show Ring.

Imported Equestor's sire was Equestrian, one of the greatest bulls ever at "Ballendallock."

Don't wait for the other fellow to get this first class bull, the product of the greatest champions of two continents, but write and have him booked for you at once. Write

A. L. FRENCH, Owner,

Byrdville, Va.

Moore's Brook Berkshire Herd

We have the best lot of Pigs this Spring we have ever had. This breeding cannot be excelled and they are equal to their breeding. Pigs ready to ship after May 5th. The Fall boars are fine ones. Bred sows for sale after May 14th. Some of these will be bred to a fine son of Lord Premier 50,001.



MOORE'S BROOK SANITARIUM CO., Charlottesville, Va.

POLAND-CHINAS & SHROPSHIRES



A promising lot of Pigs, sired by the Great Boars Big Jumbo 64275, and Dr.'s Corrector II. 72433. A few gilts and boars ready for service.

A choice lot of lambs sired by my imported ram, Altomoat's 666.

All stock warranted as represented or may be returned at my expense.

W. O. DURRETTE

Birdwood, Albemarle County, Va.



Incorporated 1907.

"STANDARD OF EXCELLENCE."

Capital Stock, \$100,000.

THE VIRGINIA STOCK FARM CO.

Incorporated.

Bellevue, Bedford County, Virginia.

J. ELLIOTT HALL, General Manager.

An Exceptional Opportunity

Worthy of Your Most Careful Consideration

We are offering the Farmers and Stockmen of Virginia an exceptional opportunity for investing in a meritorious enterprise where they are more than amply secured by tangible assets of the very highest class—Real Estate and Live Stock—assets which increase in value all the time, instead of decreasing as is the case with most all other forms of investments. This is an investment of genuine merit—one which will net a handsome income as well as being safe beyond the possibility of a loss.

It Represents:

Absolute Safeness—
 Stock Exempt from Taxation—
 Choice Land, Rapidly Increasing in Value—
 Stock raising under most favorable conditions—
 Something the whole world must have—
 A Product Necessary to Civilization Itself—
 Most Profitable of all Safe Investments.

We Offer:

A limited amount of this Capital Stock in lots of not more than five shares to any one purchaser at the par value One Hundred Dollars (\$100) per share that we may develop the natural resources of the Company's farms and increase the herds to their full capacity, thus enabling us to meet the increasing demands for pure bred live stock of the highest quality—for "Standard Types" of the different breeds.

Two Acres of Land for Every Share:

Every share sold will be represented by two acres of choice land. Land that is increasing in value very rapidly. Real estate is the fundamental basis of all security—the Assets of the world's wealth are based upon Real Estate. It is the woof and web of every investment—Stocks, Bonds, Mortgages, Insurance Policies, Manufacturing Enterprises, Railroads, Transportation and of Civilization itself. Besides this Real Estate and the improvements that will be erected thereon from time to time, a sufficient security in itself, each share will be represented by about Forty Dollars (\$40.00) worth of Live Stock. Live Stock being an asset of equal importance to real Estate itself and one which multiplies in value more rapidly than any other property that may be termed absolutely safe in all respects.

Explanation:

Perhaps you are wondering why we are making the Farmers and Stockmen of Virginia this exceptional offer—why we don't offer this stock in larger blocks and to bigger investors. This is why—we can do so, but it would not accomplish our purpose. It would not give us the support and interest of a large number of stockholders. We want the Farmers of Virginia and all interested in the Agricultural Advancement of the Old Dominion as stockholders. We want the close, vital interest that only some form of partnership can give. We want the support of the Farmer—We want him to know what we are doing and to help us do it!

A Limited Amount for Sale:

We are only offering a limited amount of this stock for sale at this time and reserve the right to refuse any offer. We want stockholders in each and every county in the state and reserve the right to refuse offers from any county that already has several stockholders. Better not wait too long—delays sometimes mean lost opportunities. Write us for handsome illustrated booklet giving full particulars concerning this exceptional offer.

WRITE FOR BOOKLET TO-DAY—Don't lose this opportunity—Talk to us as you would to your neighbor—Let's get acquainted—Our proposition is an honest one and worthy of your consideration—Let us hear from you to-day.

"DO IT NOW."

Address:—

J. ELLIOTT HALL, General Manager,

BOX A,

BELLEVUE, VIRGINIA.

Note—Kindly mention this journal when answering this advertisement.

Hygeia Herd

Pure-Bred Holstein-Friesians

It is no more expensive to maintain a good bull at the head of your herd than a poor one, and the former is certainly worth many times his cost. Therefore, write for pedigree and price on one of the richly bred bulls which this herd now offers for sale.

Address: W. F. Carter, Jr., Agent.

Crozet, Albemarle County, Virginia.

W. Fitzhugh Carter, M. D., Owner.

The breed holds the milk and butter records of the world; the herd embraces some of its best families.

moat which remain improve the landscape.

The hotel manager was Swiss, which is a guarantee of comfort and cleanliness, and it seemed to be the aim of all the employes to add to the pleasure and comfort of the guests. Our room boys would have been a sufficient inducement to keep us. They performed all the services of a lady's maid.

All the foreign attaches, with naval and military officers, had returned from Manchuria, and were stopping at the Imperial, as well as many Russians on parole. Brass buttons and gold lace were to be seen everywhere, and life and jollity reigned supreme.

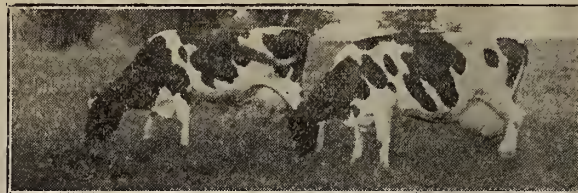
Tokyo, literally, "Eastern Capital," is the seat of government and centre of national life. It typifies new Japan and shows everywhere the clash of the old and the new civilization. The two are working side by side, but, as the one develops, the other wanes.

Tokyo is an enormous city, intersected by a network of canals, with miles of monotonous, one story tiled houses, built to resist the frequent earthquakes. The government buildings, banks and offices are built in foreign style, and the trend of architecture is towards Western standards. The Mikado's palace is in a high part of the city, within double walls and moat, and it is inaccessible to the public. There are extensive parks, much used by the pleasure-loving inhabitants. Trams extend in every direction, but are not used by foreigners. The main thoroughfare, the Giuza, is a broad boulevard with large shops where all sorts of cheap, bright foreign goods are for sale. The bazaars are very amusing. They form a serpentine of booths where one may buy all the small articles in daily use among the people. Here we got one of the wooden blocks which serve as pillars to prevent the elaborate coiffure from being disarranged. Also, we made a collection of shoes of different kinds, the waraji of the coolies, flat, straw sandals, soft rush sandals with velvet straps to wear indoors, high gata for out

BIG MILKING, HIGH-GRADE OR REGISTERED

HOLSTEIN-FRIESIAN COWS

Are what the South needs. We furnish the kind that fill the pail every time they are milked. They are "mortgage lifters." Don't keep unprofitable scrubs. Send for free circular, "Cow Boarders."



Two "Mortgage Lifters"—Milk Records of 12,000 lbs. Each a Year.

All mail orders will receive the same attention as if personally selected. Write to-day stating wants.

THE SYRACUSE BREEDERS' ASSOCIATION,

Utica, N. Y.

We furnish cows that will give from 7 to 10 gals. per day and 5,000 to 6,000 qts. a year.

We recently sold Sweet Briar Institute, Sweet Briar, Va., a car of high-grade Holstein Cows. Go and look at them. They are fairly representative of what we offer.

We are responsible and furnish the highest references.

THE HOLLINS HERD

OF

HOLSTEIN-FRIESIANS

A WORKING HERD, WORKING EVERY DAY IN THE YEAR.

Holsteins are the **BEST** because.

Holsteins are larger and healthier than other dairy breeds;
 Holsteins produce larger and healthier calves than other dairy breeds;
 Holsteins yield more milk than other dairy breeds;
 Holsteins yield more butter fat than other dairy breeds;
 Holsteins produce milk that can be kept longer and shipped farther than that of other dairy breeds;
 Holsteins produce milk more easily digested than that of other dairy breeds;
 Holsteins are found in more countries, they occupy more territory and they probably produce more milk, cheese and butter than all others Combined.

Registered Bull Calves Out of Heavy Producing Cows for sale.

JOS. A. TURNER, Gen. Mgr.,

Hollins Institute, Va.

JERSEY CATTLE

I have decided to keep nothing but Registered Jerseys of the very best strains—blood that wins both in butter test and show ring. I therefore, offer some of my best cows and heifers that are pure blood Jersey, but are not registered. Some are out of registered cows and others by registered bulls.

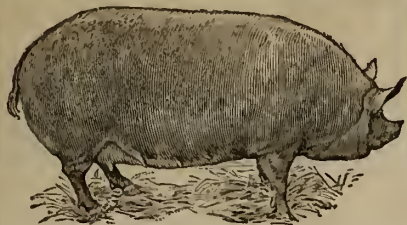
Can furnish Registered Bulls ready for service.

Evergreen Farms,

W. B. GATES, Prop.,

Rice Depot, Va.

TELL THE ADVERTISER WHERE YOU SAW HIS ADVERTISEMENT.



ESSEX SOW

Winner of Grand Sweepstake Prize at
Minnesota State Fair.

Property of Alva C. Green & Sons.

Hog Profits

depend on your success in keeping your hogs in healthy condition. To avoid disease, to stimulate the appetite, and to get the best results in pounds of salable pork, we recommend the regular use of Black-Draught Stock Medicine. You can mix a regular dose of the medicine, with the daily feed, and get the result of this splendid tonic at about $\frac{1}{4}$ the cost of a prepared "food."

Note this letter from A. C. Green & Sons, the well-known breeders of Essex Swine, Buff Turkeys and White Leghorn Poultry:

We have used Black-Draught Stock & Poultry Medicine and think it is one of the best remedies, for diseases most common to hogs and poultry, that we have ever used. We have given it to a number of Essex pigs and buff turkeys with good results."

ALVA C. GREEN & SONS, Winchester, Ind.

BLACK-DRAUGHT STOCK & POULTRY MEDICINE

Sold by All Reliable Druggists and Dealers.

P7

dors, and the beautifully lacquered clogs of the aristocracy. The shops patronized by the natives had many wares strange to foreign eyes, especially the food shops, which are filled with beans, yellow flour and all sorts of pretty messes. The fish market is decidedly attractive. The fish are laid out on large blue and white plaques. Poor old women hobble up and buy a tiny portion, scarcely one morsel, which is most likely carved from a living fish, swimming in a tank under the table. More affluent customers sit in a tea house and things are carried there from the shops for their inspection before being sent home. It amused us very much to see large American clocks in the shops, for few of their owners could tell the time, and the clocks ran as they pleased.

Tokyo is a busy, progressive place. The streets are always thronged. At first they are disappointing, because there is so little color. The dress of grown people is rich, but sombre. Grey and blue are the predominating colors. Only the children in their gay, flowered kimonos give splotches of color, here and there. As for the gaudy crepe kimonos we consider so eminently Japanese at home, they are made only for foreigners. To be sure, the theatre and ceremonial dress is very rich, and the geishas dress in bright colors. The styles never change, and ladies are entirely without lingerie problems. They wear from two to six kimonos, one on top of another, according to the season,

MEADOW FARM DAIRY

PURE BRED Holstein-Friesians.

A WORKING HERD OF SEVENTY-FIVE
REGISTERED COWS--ALL FIRST-CLASS

Young Males and Females for Sale. Address J. P. TAYLOR,
Orange, Virginia.

Milton Farm Berkshires.

Herd Boars—Premier of Milton 113579; Duke of Kensington, S3046.

Pigs from 8 weeks to 6 months, \$10 and upwards. Mated pairs, \$18 and upwards.

JOHN E. MUNCASTER,

R. F. D. No. 4. ROCKVILLE, MD.

DUROC SWINE SHORTHORN AND POLLED DURHAM CATTLE.

The Duroc is the most prolific hog on earth. The large fairs of the West prove that they are the most popular hog of that section. The demand for them in the South shows conclusively that they are the coming hog of the South. We have the largest herd in the East and one of the most fashionably bred herd in America. Sows in pig, herd boars and shotes of both sexes, not related, for sale. Send for catalog and "Duroc Facts."

Shorthorn and Polled Durham cows, heifers and bulls for sale. See ad. elsewhere in this issue.

LESLIE D. KLINE, Vacluse, Va.

and poor people wear great wadded ones in cold weather.

In Tokyo, neither temples nor shops interested us as much as the life of the city. We spent most of

our time in the streets, wherever we could see most people.

We had cards for the "Welcome Society," established to help travelers to sight see intelligently, and,

J. H. GARST

Breeder of High-Class JERSEY CATTLE

SALEM, VA.

FOR SALE, THE YOUNG BULL

Eminent's Royal Rex S4139, solid color, dark fawn, black tongue and switch, fit to head any herd, one year, nine months old, well grown and good all over; price low for immediate purchaser.

This bull is by Eminent II; he by Golden Fern's Lad, he by Boyle, he by Golden Lad. His dam is Mel's Violet, she by Ethel's John Bull, he by Crocus's John Bull, he by Canada's John Bull.

On his sire's side, he descended from pedigreed and highly commended ancestors which have sold for world's record prices. On his dam's side are some of the greatest performers at the pail and churn in the country.

I also have other sons and grandsons of Eminent; also granddaughters of Eminent, bred to my herd bull, a son of Eminent.

through it, we obtained permits to visit all municipal buildings and public instructions of the metropolis. The first card of which we availed ourselves was to the Red Cross Hospital, where we carried flowers to the wounded. It is an enormous institution, on the outskirts of the city, carried on in the most enlightened manner. Several officers went with us through the wards, and it was distressing to see the long line of cots, filled with battle scarred men, some of them dreadfully mutilated. The nurses looked strong and efficient in their white uniforms, with a red cross on sleeve and cap.

A spirit of mischief seized my rickshaw boy on the return. He began to run home at top speed, leaving the other rickshaw far in the rear. He turned a grinning countenance on me when I screamed, "Mate, mate!" (stop), and went faster than ever. We were in a strange part of the city at twilight and I did not relish the situation. Suddenly, I bethought me of an idea, and leaned far forward in my rickshaw, making it so heavy that the boy had to slacken his pace. This

YOUNG REGISTERED HACKNEY for SALE

Two Registered Hackney Fillies, sired by General II., color, chestnut, two and three years old, respectively; and one Handsome Registered Hackney Stallion, by Hedrick (no kin to the fillies). These animals are especially breedy, well formed, and a good size for their ages. Address—

T. O. SANDY, BURKEVILLE, VA.

BERKSHIRES and JERSEYS.

Sows bred, Boars ready for service, Pige, five months; also eight weeks old. Cows due to freshen soon. A few fresh Cows. Prices reasonable.

RIVER VIEW FARM, C. M. BASS, Proprietor,
Rice Depot, Virginia.

EXCELLENT

SHORTHORN HEIFERS AND BULLS.

By the Scotch topped Bull, Royal Lad (advertised by the old reliable breeders, P. S. Lewis & Son, as the best bull ever bred on their farm) by the International winner, Frantic Lad, son of The Lad for Me, champion of America in 1900. Also a few fresh Shorthorn Cows.

Pure Yearling **SOUTHDOWN RAMS** by Senator, a prize winner in Canada as a lamb and a yearling. He was bred by Hon. George Drummond, the foremost Southdown breeder in America.

R. J. HANCOCK & SON, "Ellerslie," Charlottesville, Va.

TELL THE ADVERTISER WHERE YOU SAW HIS ADVERTISEMENT.

GEO. S. LOOMIS

J. B. LOOMIS

ALPINE HERD REGISTERED HOLSTEIN-FRIESIANS

PROMPT ATTENTION GIVEN
MAIL ORDERS

PURE BREDS AND GRADES BOUGHT
AND SOLD ON COMMISSION

To Southern Dairymen:—

I am prepared to supply you with pure-bred or grade Holsteins, in car lots or single individuals. You know me. I know you, your needs, and conditions. Am doing business in the same old way—satisfaction guaranteed. Write me for what you want.

Awaiting your favor, I am

Yours truly,

J. B. LOOMIS—(The Holstein Man).

RICHLAND, N. Y., May 13, '09.

enabled my companion to catch up with me, and we then proceeded home together.

For the most part, we were lucky in our rickshaw boys, on whom the pleasure of slight seeing so largely depends. These had picked up enough English around the hotel to explain things intelligently, and they further added to our comfort by carrying canvas slippers with them to tie over our shoes when we visited the temples. We had a sense of ownership towards these boys, and felt really attached to them, whilst they, in return, always had our interest at heart.

The chrysanthemum season was now at its height (in November). Peddlers carried baskets of these flowers through the streets, swung on poles over their shoulders. We were curious to compare the Japanese varieties with those at home, accordingly we devoted one afternoon to the flower shows in the florists' gardens at Donzo-Zaka. It was held in a great tent at the entrance of which were borders of beautiful, blossoming plants, bearing the most poetic names, as "dye of the dew," "hoar frost," "spray of the sea," "moonlight on the Fuji," etc.

Inside was the strangest sight. There were scenes from the Russo-Japanese War made of chrysanthemums on bamboo frames. The figures had wax faces and hands, otherwise the whole thing was made of flowers and foliage. There were cavalry charges, naval battles and all sorts of bloody scenes. The most popular model was of a tiny Japanese killing an enormous Russian in a hand to hand conflict. Boys sold souvenir cards of these scenes, and pretty little tea sets in chrysanthemum decorations.

BLESSED PROFANITY.

Bishop: "This is terrible, Captain! Is there great danger for us? Tell me truly."

Captain: "Oh, no, Bishop, we're coming out of it all right."

Bishop: "Tell me truly, Captain; you are keeping it from us! The storm is more awful every minute! My wife is in such terror! Tell me the worst!"

Captain: "We're all right. Here, Bishop, come here to the fore-castle and listen down the hole. Do you hear the sailors down there swearing and cursing? That means it's all right. When they stop that, then you may know there's danger ahead."

Bishop, (fifteen minutes later, who has been again to the fore-castle to listen down the hole and has come back to his wife): "Thank God, Mary, they're still cursing!"—Harper's Weekly.

Always mention The Southern Planter when writing advertisers.

The Hotel CHELSEA

WEST TWENTY-THIRD ST., NEW YORK

Absolutely Fireproof

European Plan



Room, with use of bath	\$1.50
Room, with private bath	2.00
Suites—Parlor, bedroom and bath	3.50
and upward	

The Hotel Chelsea may be reached from the Pennsylvania, Lackawanna, Erie, Reading Baltimore and Ohio, and Jersey Central railroad stations, all at foot of West 23d Street, by cab or electric car direct in five minutes. West 23d Street, New York, ferries land passengers at Hoboken near steamship piers.



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ENQUIRERS' COLUMN.

All inquiries must reach us by the 15th of the month previous to the issue, or they cannot be answered until the month following.

1. What is the cause of and remedy for sore and closed eyes in chickens? Have had several cases among small chicks; now have a large, fine white Rock hen that sets around with closed eyes. Upon being opened they are found to be very red and swollen. It has not caused the death of any. Some have only one eye closed.

2. Can you give a remedy for festering sores on a horse caused by wood ticks, or any abrasion of the skin?

3. What is the cause of what we call "dead cream" in the buttermilk? It is round particles of butter fat that will not mix with the butter. Is there any way to avoid having it?

PETER BAUMANN.

Powhatan Co., Va.

1. The cause of the closed and sore eyes is cold draughts to which the chickens have been exposed. It is really incipient roup. The birds affected should be removed from the rest into warm, dry quarters and the heads, eyes, nostrils and throats be treated with the following solution: Dissolve one ounce of permanganate of potash in three pints of water and, with a small atomizer, spray the head, eyes, nostrils and mouth thoroughly twice daily until the mucous discharge ceases and the birds seem healthy again. Disinfect the houses and runs with one per cent. sulphuric acid solution to kill all germs of the disease.

2. Wash thoroughly with warm water to clear away all purulent matter and then gradually bring the water down to cold and bathe well with this for an hour or two. Then dry the part thoroughly and quickly and bathe freely with camphor one ounce and sweet oil eight ounces.

3. What you call "dead cream" is simply small masses of curd which have formed in the cream from not keeping at a right temperature and thoroughly stirring and mixing when adding more milk or cream to the bulk. To avoid having these in the butter the cream should be well stirred before pouring into the churn and should then be strained through a fine strainer into the churn. Even then sometimes small curdy masses will pass into the butter and care should be taken to wash these out before making up the butter.—Ed.

Preparing Land.

You often speak of the great importance of preparing the land well before seeding or planting, but as many years as I have read The Planter I cannot remember ever seeing an article dwelling upon that sub-

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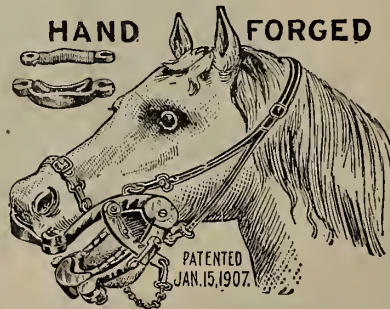
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ject "in detail." Of course, we subscribers all have our own way of doing it, but what is your method? For instance, 1. After plowing deeply, as deep as the law of nature allows, a piece of land that was in corn last year and is to be put in corn again this year, what would you do with a rather light or sandy piece—one of sandy loam and one somewhat stiff or bottom land, all with clay subsoil?

2. With the same condition every other way, but crimson clover on land now, what would you do?

3. A piece of rather low land which has been lying out three years, and which was broken in December last, what would you have done in order to get the land in real good, fine condition for corn to be planted the last days of May?

An answer will be appreciated by at least one of your subscribers; possibly by very many.

I have G. M. Clark's method, but do not know whether the same would in all cases answer down here.

Warwick Co., Va. YORKTOWN.

1. When we say "prepare the land well," we mean something very different from what is the usual course in the South in getting a seed bed ready. Usually this is done by plowing the land to the depth of four or five inches and running a spike harrow over it once or twice. This we call but an excuse for making a seed bed. The land should be plowed at least a couple of inches deeper than it has ever been plowed before, and if there is a hard pan or a good clay subsoil under it this should be broken with a subsoil plow. Then a disc or double disc harrow should be put into it and be run both lengthwise and across to thoroughly cut up the clods and break and mix the soil. If the land be rough and cloddy the roller should be used on it next and then the disc harrow again, and it should finally be harrowed down smooth with a spike toothed harrow. The object of all this working is to let air and moisture into the soil and to thoroughly break down all lumps and clods, and not until this is done is a piece of land well prepared. We have many times, before the disc harrow was known, plowed a piece of land three times over in different directions and harrowed and rolled it between each plowing before we considered it fit for a seed bed. The disc harrow will do this breaking and fining much better and quicker than the old plan of replowing. Mr. Clark's system is an excellent one.

2. Where crimson clover is on the land, it should be allowed to mature as nearly as possible before plowing it down, and then the surface should be made fine with the disc harrow without tearing up the clover again.

3. We would use the disc and spike tooth harrow and roller upon it until we had gotten as deep a bed of



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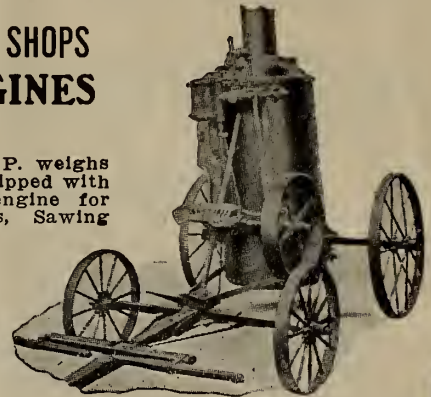
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finely broken soil as we could get without tearing up the old sod turned down.—Ed.

Clover for Name.

I enclose a sample of clover. Give me name and also the feeding value and if an improver of land. Will it grow successfully here?

S. L. HOLMAN.

Buckingham Co., Va.

The plant is alsike clover. It makes excellent hay and pasture and is an improver of the land. Yes.—Ed.

Improving an Old Pasture.

I have a piece of low, flat, meadow land well drained, which has never been broken with a big plow. Hay of the best quality has been gotten off it for several years, but, owing to the heavy rains in summer that swell the stream that runs through it, it had to be abandoned for the use of hay, and used for pasture altogether.

Now, this pasture is becoming mossy and weedy. Would an application of lime be the medicine for this? If so, how much per acre, and what time in the year should it be applied? I cannot break this piece of land with the assurance of a crop off it. If I put it in corn the wire worms will eat it up, or the heavy rains will wash the crop out. I have to depend solely on this piece of land for permanent pasture. So the question arises with me, what must be done to make it permanent and good?

A SUBSCRIBER.

Montgomery Co., Va.

In the late fall after the pasture has ceased to grow take a sharp toothed spike harrow and run it over the field tearing the old sod and moss thoroughly open and then rake up the trash and haul it off into the barn yard to make manure. Then apply two tons of freshly burnt slacked lime broadcast per acre and let lay until March. Then apply three hundred pounds of bone meal per acre and sow a mixture of grass seed, say,

Thomas Phosphate

(Basic Slag Meal)

AN AVERAGE ANALYSIS

Moisture	0 1-10 Per Cent.
Total Phos. Acid	17 to 19 Per Cent.
Avail. Phos. Acid.....	15 to 16 Per Cent.*
Lime	35 to 50 Per Cent.
Magnesia	5 to 6 Per Cent.
Iron	13 to 14 Per Cent.
Manganese	7 to 9 Per Cent.

*Wagner Method.

Results

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	Grain.	Fodder.	Total.
	Lbs.	Lbs.	Lbs.
Soluble Phosphates	11,298	15,618	26,916
Basic Slag.....	11,795	16,059	27,854


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orchard grass, herds grass, Kentucky blue and meadow fescue, in equal parts by weight at the rate of one bushel to the acre, and cover by running a bush harrow over the field and then roll if dry enough. This should renovate the pasture and make it produce well. It should be topdressed with bone meal or bone meal and acid phosphate mixed in equal parts at the rate of three hundred pounds to the acre every spring and you will soon find that you have a better pasture than ever before.—Ed.

Cedar Trees and Fruit Trees.

Please advise in regard to the planting of cedar trees near fruit trees. I have heard it stated that if cedar trees were near an orchard of fruit trees that the fruit trees would be damaged by them.

Sussex Co., Va. W. W. ALLEN.

Cedar trees should never be allowed to grow near an orchard. One of the forms of leaf blight which injures the apple trees badly is propagated on the cedar apples (the orange colored balls which you will see on the cedar trees in spring). The spores of the disease pass from these to the apple trees.

Alfalfa.

I wish to try an acre in alfalfa on my farm in Stokes county, N. C. The land is sandy loam of moderate fertility. Has been in tobacco and wheat for several years, is now in wheat. Give me full directions as to how best to plow and prepare this land after wheat is harvested. How much lime, rock or shell. Am troubled right much with sheep sorrel. When to apply lime, and how much. When to apply fertilizer, and how much. What kinds, etc. I already have raw bone and fourteen per cent. phosphate. When to sow seed and how much. If I succeed with this I expect to sow some every year. Thanking you in advance.

"OLD TOWN."

Pittsylvania Co., Va.

In this issue you will find two articles dealing fully with this question of alfalfa growing and will, on reading these get the information you require.—Ed.

Raising Early Vegetable Plants.

I want a book on raising early plants and vegetables, both with and without glass. Please tell me in next Southern Planter what to buy, and price of same. Has Professor Massey ever written any book on these subjects? If so, give price of same. Cannot you get Professor Massey to give us a series of articles on this line in The Planter?

JOHN W. GILLIAM.

Appomattox Co., Va.

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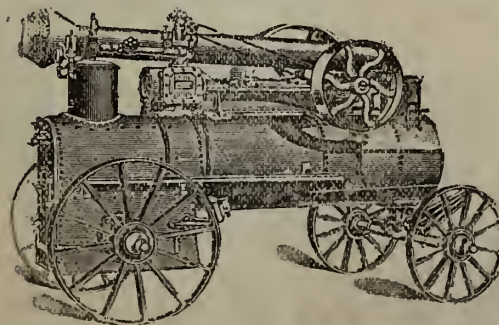
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you the information you desire, but we have not a copy of the book at hand to refer to and will, before fully advising you, look into this point. Oemler's Truck Growing in the South, price \$1.00, is a very good work on the general subject of truck crops. When Professor Massey was Horticulturist at the North Carolina Station he prepared an excellent bulletin on the subject of truck raising. We do not know whether the same is yet available, but, if still on hand, no doubt the Director of the North Carolina Experiment Station, West Raleigh, N. C., will send you a copy if you request him. This does not, however, deal with the subject of growing under glass especially. We will ask Professor Massey to write on this subject.—Ed.

Improving Land.

I wish to try my hand at bringing to a good state of fertility two hundred acres of upland, shaley soil, the shale rock lying near the surface; and I want you to get Professor Massey to tell me how to do the trick most economically. The land can be plowed, but has, perhaps, never been plowed six inches deep. It lies high and dry, and slopes to the South. Present crop, say, ten or twelve bushels wheat. Timothy and clover grow, but soon run out.

What elements of plant food are most likely lacking in shale land? This farm seems especially adapted to peaches, there being still in bearing trees planted more than twenty years ago, which leads me to think it is not deficient in potash. Can it be made to grow Irish potatoes, or alfalfa? Can wheat be grown and land improved at same time? How about a three-year rotation—corn, wheat, clover, or will it be better to make it cowpeas, wheat and clover?

The farm is in Augusta county, and if it will take blue grass as our limestone soils do naturally, will be admirably suited for stock raising. Having no experience with shaley land I will appreciate advice from Professor Massey and others who know.

JOHN W. TODD.

Augusta Co., Va.

Just over the mountains from you, on the Miller School farm, twenty years or more ago, I had some similar soil. But there I had the advantage of a body of rich bottom land which I used for feeding the hills, and as everything I grew was to be consumed on the place, I planted the bottoms in ensilage corn mainly, and

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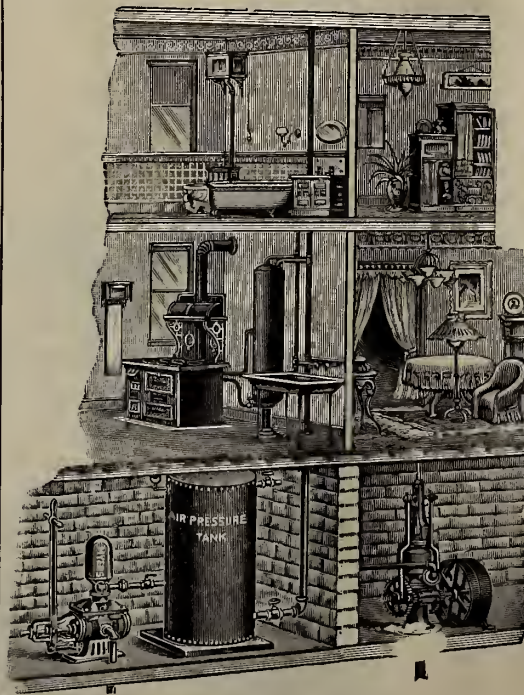
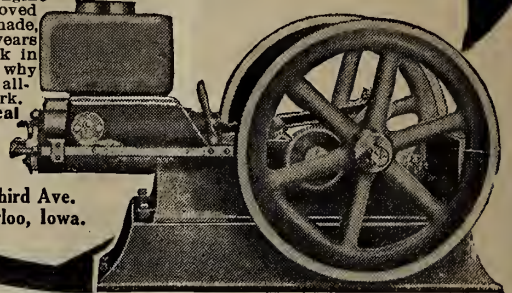
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sowed clover among the corn, cut a crop of hay the next spring and then back to ensilage corn at once. Keeping a large dairy herd and feeding about 100 beeves in winter and thirty to fifty horses and mules (only a few employed on the farm) I made a large lot of manure, and it went on the hills, and I made fine crops of hay on hills that I was told when I began would never grow grass better than poverty grass. I was there but four years before I was called to the North Carolina College of Agriculture, and did not fully carry out the plans I had made for the hills. My plan was to plant corn, and sow peas among it at last working, leaving the peas for the first one or two rounds on the land and turning them for oats in spring, and sowing grass and clover with the oats. Let the grass stand two years after the year of seeding, and haul out on the sod to go in corn again the following spring all the manure made as fast as it was made, whenever I could get on the land or was not hindered by other work. I found that the red clay there would never get solid in a barn yard, but everlastingly worked into a mulch. So I macadamized the barn yard with rock and kept it cleaned daily. I was told that if I did not keep the steep hills in sod all the time they would wash away. But I noticed that old pastures all around me had deeper gullies than elsewhere, for as the grass became thin the gullies started on the cattle tracks. Hence I determined to work the land in hoed crop but once in four years, and then back to a sowed crop and grass, for while I wanted grass, I wanted only good grass and did not propose to keep the land in grass until there was none left. So far as I went, as I have intimated, the plan worked admirably, and if the plan had been kept up the farm would be in better shape to-day. But probably you do not propose to make a farm entirely devoted to stock. In that case I would adopt a similar rotation, and sow wheat after corn, peas after the wheat harvest, for hay, and wheat again on the pea stubble to be sown to grass and clover to stand two years. Then back to corn with all the home-made manure. I would use on the wheat a mixture of ten per cent. phosphoric acid and four per cent. potash. Little potash is needed on the limestone soil of your section or on the red clay east of the mountains, but the shale soil should have some. This would give you a five year rotation. Then gradually increase the depth of plowing, starting at six inches and finally turning eight inches. While subsoiling did finely on the red soil in Albemarle I doubt that it is needed on your shale soil. In Albemarle we could not follow two crops of wheat in succession because the Canada blue grass, the native sort (why called Canada I do



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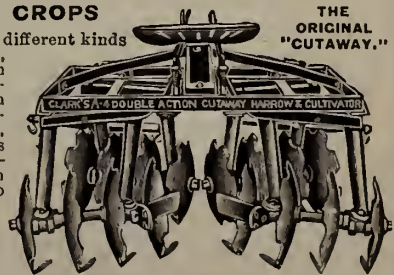


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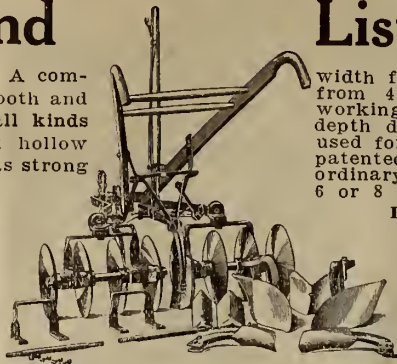


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width from 2½ to 4 feet wide, every trip, and from 4 to 5½ feet every two trips, either working the dirt to or from the plants at any depth desired down to 5 inches. Can also be used for a light harrow and I can furnish the patented discs attachments to work on any ordinary 5-tooth cultivator. They carry either 6 or 8 discs at a time.

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Frank Beasley,

1422 East Main Street.

RICHMOND, VA.

not know), would choke it out the second year. This grass is poa compressa and runs like Bermuda. Of course, I can only make suggestions, not knowing what crops you propose, but some form of live stock industry should be a feature in the improvement of any land, the great object being to restore the humus that has been wasted from the land. The shale soil is lacking mainly, I think, in phosphoric acid and potash, but probably all three of the needed elements are lacking. Of course, you can more rapidly improve the land by the three-year rotation of corn, wheat and clover, and leave out the grass, but as the land develops in production I would lengthen the rotation and get more grass. Get it more fertile and then lime it occasionally and you can grow blue grass on it. With liberal fertilization it should grow fine crops of potatoes. I have no experience in that sort of shale, but have had slaty soils that were leachy and hard to keep up. The shale may have a similar tendency.

W. F. MASSEY.

Dehorning Calves and Cows—Ringling a Bull—Strawberries—Hemlock—Mallard Ducks—Color of Eggs Laid by the Different Breeds.

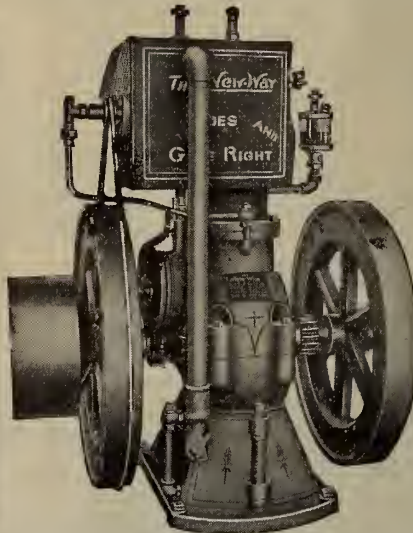
I shall be so glad, and you will help me, and perhaps others, if you will kindly answer the following questions:

1. I have frequently read that calves can be dehorned with caustic. Please tell me how, when and how long to apply it. Some people say it will not do any good to apply it until the little buttons or horns have been first cut off. I have been applying lunar caustic (stick form) to my calf four weeks old, began when calf was ten days old, but it hasn't yet done any good, the horns are coming right along.

2. Also, kindly tell me how to put a ring in a bull's nose. Should it be done when he is a calf, or after he is grown?

Should a plug be cut out of his nose for the ring, or should it be put in

LISTEN! MR. FARMER!



Have you heard of the **NEWEST** and **MOST UP-TO-DATE GASOLINE ENGINE** on the **MARKET**? If not, write us about it at once. It's called the **"NEW-WAY"** air cooled and made in 2½, 3½ and 7 H. P.—Prices guaranteed to be cheapest of any high class engine. It can be used for every **FARM** purpose imaginable, and is so simple that anyone can run it.

STOCKDELL-MYERS H'D'W. CO.

Petersburg, Va.

You Can Cover Your Roof With

Mycoroid Rubber Roofing

And Then "Forget It."

Because it requires no coating.

It is absolutely waterproof.

It is practically Fire Proof.

It does not taint water.

Write for Samples and Booklet.

We also carry a full line of Galvanized and Painted Corrugated and V Crimp Roofing in rolls and boxes

MCGRAW-YARBROUGH CO., Richmond, Va

Goochland Co., Va., March 9, '09.

We consider the Southern Planter a necessity for every farmer in our section.

MRS. O. REED.

Nottoway Co., Va., Feb. 15, '09.

I like the Southern Planter better than any farm magazine I know of.

C. H. S. HALLETT.

so when like a ring is put in a hog's nose?

3. What is the right age to dehorn (with a dehorner) grown cattle? I had some dehorned a few years ago (aged about two and three years) and since then unsightly nubs have come out three inches long, and these disfigure them very much, so I concluded they must have been too young or their horns would not have grown any more.

4. Please tell me the best variety of strawberries to grow for a home garden.

5. What is the best method of getting rid of hemlock? I have a pasture that is thick with it on all moist land and along the streams that run through it. It would be an endless job to try to uproot each plant. I thought perhaps I could wait until seeding time and cut off all the seed heads, but don't know if it can be exterminated in that way.

6. For what purpose are domesticated Mallard Ducks raised, for their flesh or their eggs?

7. Which breed of chickens lays the largest eggs? Which lay white eggs, and which lay yellow eggs, and which lay the deepest colored eggs?

AN ANXIOUS SUBSCRIBER.
Amherst Co., Va.

1. Caustic potash is used to prevent the growth of horns on calves and is successful if the use of it is begun in time. It should be applied first when the calf is about ten days or a fortnight old. The hair around the button from which the horn springs should be clipped off and then the stick of potash be wet and be rubbed on the button until sufficient of it is deposited to redden the skin well and burn into it. Be careful not to let it run down on the side of the cheek, or it will cause a sore. Usually one application is sufficient, but if the growth is seen not to be killed apply again in a week or ten days.

2. The hardware stores sell pliers for ringing bulls and with these it is much more easy to do the work than in the old fashioned way with a knife. The method formerly was to make a slit through the gristle with a knife and then insert the ring and rivet it with a hammer. The pliers used now make the slit and then can be used to clench the rivet. A bull should be rung when he is six months old before he learns any vicious tricks and then is much easier to handle as he has never known the time when he could not be easily controlled by man through the use of the ring.

3. The horns of cattle should be fully grown before they are dehorned, or "ugly nubs" scurrs, they are called, will grow out again. If the horns are fully grown and they are cut off close to the skull they will never start again.

4. This is a very difficult question

REAL AND FAKE CREAM SEPARATOR IMPROVEMENTS

A year ago, in keeping with its policy of ALWAYS HOLDING A POSITION FAR IN ADVANCE OF ALL ATTEMPTED COMPETITION, the DE LAVAL Company put on the market an entire new line of Improved Farm and Dairy sizes of cream separators.

They were brand new in every part, from the supply can at the very top to the shape of the base at the very bottom, and reflected the result of three years of study, experiment and test by the DE LAVAL engineers and experts throughout the world, based on thirty years of experience in cream separator invention, development and use.

Every good feature of previous DE LAVAL machines was bettered and many new and novel ones added, accomplishing greater simplicity of construction, ease of cleaning and replacement of parts; less cost of repairs where necessary; easier hand operation; more complete separation under hard conditions; greater capacity, and a material reduction of prices in proportion to capacity.

A year of practical experience in the actual sale and use of 100,000 of the new machines in 1908 but served to suggest still greater refinement of manufacture and a few finishing touches of perfection in the details of construction of the new line of machines as they are now offered to the 1909 buyers.

The 1908-1909 changes in the DE LAVAL machines on the whole have been SO COMPLETE AND REMARKABLE that the man who hasn't seen and used an Improved DE LAVAL really cannot know what the perfect, up-to-date cream separator is TC-DAY.

The new DE LAVAL machines literally "SWEPT THE FIELD" in 1908 and competition was driven to such desperate extremity that THIS YEAR most of them have come out with all kinds of CLAIMED advertising and catalogue "improvements," Nearly everybody has an "IMPROVED" 1909 machine and is making a play for business on that basis.

But we make the POSITIVE STATEMENT that there is not A SINGLE NEW OR ACTUAL IMPROVEMENT in any of them, and while some features have been bettered it has been merely through the appropriation of DE LAVAL ideas from TWO TO TWENTY YEARS OLD and in most cases long since discarded in DE LAVAL construction.

That's a PLAIN STATEMENT, made in plain words that no one can fail to understand. It has the knowledge, experience, reputation and capital of the DE LAVAL Company behind it. Some people won't heed it; some people won't believe it. That will be their loss. Those who do will profit and benefit by it.

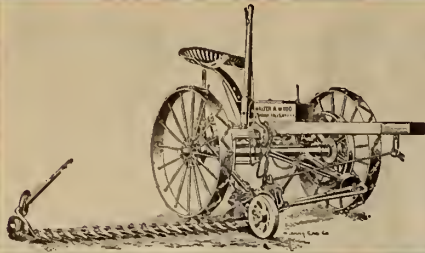
We stand ready to PROVE IT to any one desirous of buying a separator for the first time or of trading in an old and out-of-date machine for a new one.

THE DE LAVAL SEPARATOR CO.

42 E. Madison St.
CHICAGO.
1213 & 1215 Filbert St.,
PHILADELPHIA.
Drumm and Sacramento
Streets,
SAN FRANCISCO

General Offices:
165 BROADWAY,
NEW YORK.

173-177 William Street,
MONTREAL
14 & 16 Princess Street,
WINNIPEG.
107 First Street,
PORTLAND, OREG.



MOWING MACHINES DELIVERED AT YOUR DEPOT

Just spend one cent in money and one minute of time and ask the House of ASHTON STARKE, Richmond, Va., what they will deliver the Highest Grade Field Mower at your depot for.

to answer as new varieties are brought out every year and for each of these some greater excellence is claimed. Another difficulty is caused by the fact that varieties behave differently in different localities. Some have special adaptation to one section and some to another. For the Piedmont section, the following are perhaps the best of the older varieties and probably much better than most of the new ones: Haverland, Parker Earle, Sharpless, and Tennessee.

5. This weed can only be effectually gotten rid of by plowing up the pasture and putting it into cultivated crops for two or three years. It can be kept in subjection by pulling the plants when the ground is soft, and if this is not practicable, by cutting the plants off close to the ground before they are in flower. This weakens them so that they eventually die out.

6. We have never had any experience in keeping Mallard ducks, nor have we known any one keeping them, therefore, cannot say for what purpose they are kept. We presume however it is for their flesh, as we do not suppose that they are prolific layers, but partake much of the nature of wild ducks, which usually only lay one sitting of eggs, or, at most, two, in a season.

7. Probably the Black Spanish and the Minorcas lay the largest eggs. The Asiatic breeds and those derived largely from them usually lay colored eggs, probably the Cochins lay the deepest colored eggs. The Mediterranean and the Hamburg breeds and those breeds derived mainly from these lay white eggs.—Ed.

Colic.

Please tell me what to do with my horse, he is subject to something like colic. He will lie down and roll a few minutes and then he will get up and make water, and then he seems to get easy. He has had two attacks in the last five months.

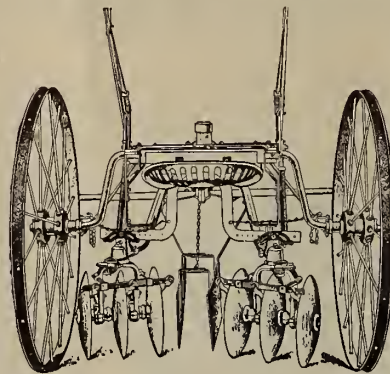
2. I have a hog that cannot walk. It seems to have given away in the small of its back. Please tell me what to do for her.

Halifax Co., Va. J. B.

1. Probably the best remedy to give the horse when he has one of

The CASE COMBINED DISK and SHOVEL CULTIVATOR

With Extra Strong Staggered Spoke Wheels, Self-Lubricating and Dust-proof.



The Case Disk Cultivator responds instantly to the will of the operator, and the change in direction is accomplished by the slightest pressure of the foot. Provision has been made for locking the cultivator into a rigid position for transportation. It can be easily regulated for plowing to various depths. The disks are easily reversible, so that the dirt can be thrown up to the corn or away from it without disturbing the roots. A slight flexibility is allowed the gangs by spring pressure which holds them in the ground, so that no evil effects result from striking obstructions. Gangs can be easily set at a sharp angle, adapting them to use in cultivating listed corn.

The change is made simply by changing the position of hand lever and pawl. The bearings are thoroughly protected against dust and dirt by our new dirt

receptacle. The wheels are adjustable in and out to change the width of tread to the spaces ordinarily required.

Sixteen-inch disks are furnished. Provision has been made for attaching two extra disks for harrow equipment, if desired.

Our complete Catalog of Improved Farm Machinery sent to any address Free.

THE IMPLEMENT COMPANY, 1302 E. Main Street, Richmond, Va.

REVERSIBLE DISC PLOWS

For Two or Three Horses

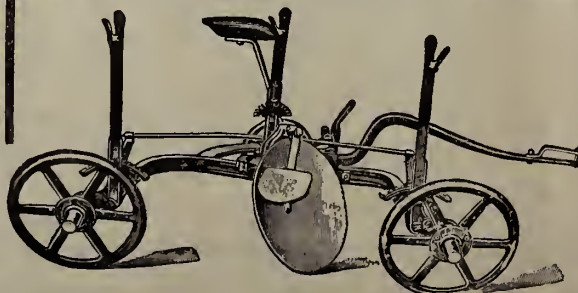
Do Their Work "A Comin' and a Goin'"

The Plows that do the best work anywhere and everywhere—hillside or level land—hard ground or soft ground—sticky ground or trashy ground—are the

CHATTANOOGA REVERSIBLE DISC PLOWS

Chattanooga Plows are the only entirely successful Reversible Disc Plows—simple in design—few in parts—sturdy in construction—as durable as skilled workmanship and the finest materials can make them—guaranteed for twelve months against any breakage caused by defects in material or workmanship.

Chattanooga Reversible Plows turn corners, either right or left, pulverize the soil thoroughly, cover weeds, leave a clean furrow, and save time, labor, money and horse flesh. Write today for free postpaid catalog which tells the whole story.



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The WM. J. OLIVER PLOWS

Run Smoothly
Work Lightly
Shed Perfectly

Because They are Built in such a way that each Strain is Equally Distributed Throughout

By virtue of the Uniform Distribution of the Metal in each part in proportion to the Strain to be Taken Care of

On Account of their Splendid construction in Every Particular, especial attention being Paid to the Minutest Detail



Look at the LANDSLIDE. It's Different

They Have Points that will LAST; Chilled Shins That will CUT

How often have YOU said: "Well, I don't need a new point, but I will buy one because my 'Cutter' is dull!" Our Shin or "Cutter" lasts two to four years because it is CHILLED. Write to us for further information We have just what you have been looking for in a CHILLED PLOW



The Wm. J. Oliver Mfg. Co.

KNOXVILLE, TENNESSEE.

N. B.—Other Manufacturers do not show LANDSLIDE views of their Plows. WHY?



these attacks of colic is chloral hydrate one ounce in half a pint of water. If not relieved in an hour give another dose of the same strength. If you do not have the chloral hydrate, give half a pint of whiskey in hot water. These remedies should be followed after the horse has gotten relief by a dose of one ounce of aloes or one pint of linseed oil to remove any irritant matter from the bowels.

2. The partial paralysis of the backs of hogs of which we often have complaint arises from various causes and there does not seem to be any very general consensus of opinion among veterinarians as to the remedy best to be used. It may arise from worms in the loins and kidneys, and when this is the case no remedy seems to be available. If the trouble arises, as it sometimes does, from worms in the other organs, turpentine in doses of fifteen or twenty drops three times a day followed by a purge of castor oil or Epsom salts is useful. The cedar apple ground into powder in doses of twenty to twenty-five grains repeated three times a day and followed by a purge will also often get rid of the worms. Where worms are not the cause, it is the opinion of many veterinarians that the trouble is largely caused by improper feeding. A too constant corn diet which causes overheating of the body is probably often the cause of the trouble. Hogs should have more vegetable and protein feeds like peas, and care should be taken not to feed musty grain of any kind or badly fermented slop food. As a remedy you might try blistering across the loins with mustard and turpentine. We have known this to be effective.—Ed.

Terracing Land.

I should like to see something in your paper on the best and most successful methods of terracing land. Some advocate now that it is best to run terraces on water level, and we should be glad to have your opinion in the matter. Where can we buy a first-class terracing outfit?

S. A. MAUNEY.

Cleveland Co., N. C.

We have never given much study to the subject of terracing land because we believe that the system ought to be abolished rather than extended. There may be locations and conditions when and where it is profitable to terrace land, but we believe these are few and far between. The object of terracing is to prevent the washing of the land into gulleys. In the great majority of cases, this can be much more effectually secured by the deep plowing of the land and the breaking of the subsoil. If this deep plowing and subsolling be done around the hill (not in the line of fall), laying the furrows off so as to nearly run them on the level, it will



THE GUARANTEED ROOFING- CONGO A SURETY BOND with every roll

Congo is the *only* Ready Roofing carrying the National Surety Co's. bond. It carries with it terms and conditions that make it especially attractive to anyone who must consider the roofing question.

For 10 years you can rest easy about your roofs if covered with 3-ply Congo, and we know that it is probable you will get *even longer* service out of it.

The Surety Company is issuing these bonds, and back of them is their *two million dollars* of assets. It is a matter of keen satisfaction to us that they were willing to stand behind Congo Roofing.

You are immune from any responsibility other than giving the roofing ordinary care.

Write to-day for samples of Congo and full information.

Remember, that with *every* roll of Congo you get a genuine Surety Bond.

UNITED ROOFING AND MFG. CO. Successor to Buchanan Foster Co.
600 WEST END TRUST BLDG., PHILADELPHIA, PA.
CHICAGO SAN FRANCISCO.

SPECIAL SALE OF W. K. BACHE & SONS Stock of FARM IMPLEMENTS, WAGONS, BUGGIES, ETC.,

AT REDUCED PRICES

The entire stock will be sold to close out business, and parties desiring to purchase goods in these lines can procure them at special low prices.

Act quickly, before the assortment is broken. Printed lists with prices mailed to out-of-town buyers on request.

H. W. ELLETT, SALES AGENT.

STORE 1406 E. MAIN STREET,
RICHMOND, VIRGINIA.

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M. A. CHAMBERS,
Secretary.

1909

VIRGINIA STATE FAIR

1909

RICHMOND

OCTOBER 4-5-6-7-8-9.

FIELD, SEED, GRAIN

The April and May issues of The Southern Planter have carried information with regard to above departments of the Farm Products section, and they will be found to contain attractive cash inducements for exhibits of CORN, WHEAT, OATS, BARLEY, RYE, ALFALFA, ORCHARD GRASS, RED CRIMSON and ALSIKE CLOVER, SOY BEANS, COW PEAS, SORGHUM.

CORN SPECIAL.

This special now exceeds SIX HUNDRED DOLLARS in cash, and \$125 CORN BINDER of the International Harvester Co., and the awards in same are valuable, and will pay large returns upon time expended in producing exhibits.

ACRE YIELDS.

The prizes offered in these classes will be of value, and bring handsome returns to all competitors.

COUNTY EXHIBITS.

Every endeavor will be made to bring out the RESOURCES of our COUNTIES, and it is hoped that the LARGE CASH prizes which will be paid in these classes will prove a stimulus to enterprising FARMERS in each of the counties to collect and send to the Fair the bounteous variety of crops which each produce.

TOBACCO.

In the July issue of the Planter will be found the prizes offered for sun cured, olive stemming, brown shipping and stemming, and the bright crop wrappers, cutters, fillers and smokers. THE RICHMOND TOBACCO TRADE offers SEVENTY-FIVE DOLLARS as a SWEEPSTAKE in the tobacco classes.

VEGETABLES

	1st. Prem.	2d. Prem.		1st. Prem.	2d. Prem.
Wax Beans, one peck	\$1 00	\$ 50	One peck White Sweet Potatoes	3 50	1 00
Stringless Beans, one peck	1 00	50	One peck Red Sweet Potatoes	3 50	1 00
Pole Lima Beans, shelled, one peck	1 00	50	One peck Jersey Yellow Sweet Potatoes	3 50	1 00
Bush Lima Beans, shelled, one peck	1 00	50	One peck Red Yams	3 50	1 00
Beet, for table use, six bunches	1 00	50	One peck White Yams	3 50	1 00
Stock Beets, half bushel	2 00	50	Radishes, White, six bunches	1 00	50
Flat Head Cabbage, any variety, six heads	2 00	50	Radishes, Yellow, six bunches	1 00	50
Heaviest head of Cabbage	1 50	50	Radishes, Red, six bunches	1 00	50
One peck Carrots, topped, any variety	1 00	50	Sandwich Island Salsify, six bunches	1 00	50
Half peck Cucumbers, for slicing	1 50	50	Half bushel Spinach, any variety	1 00	50
Half peck Cucumbers, for pickling	1 50	50	Crook Neck Squash, three specimens	2 00	50
Best six Egg Plants, any variety	1 00	50	White Bush Squash, three specimens	2 00	50
One peck Red or Yellow Dry Onions	1 50	50	Cashaw Squash, three specimens	2 00	50
One peck White Dry Onions	1 50	50	Heaviest Squash	1 50	50
One peck Yellow Danvers, Onion Sets	1 50	50	One peck Turnips, white	2 00	50
One peck White Onion Sets	1 50	50	One peck Turnips, yellow	2 00	50
One peck Ckra, any variety	1 50	50	Three Yellow Field Pumpkins	2 50	50
Twelve heads Lettuce	1 50	50	Three Sweet or Pie Pumpkins	2 50	50
One peck Parsnips, hollow crown	1 50	50	Heaviest Pumpkin	2 00	50
Six bunches Moss Curled Parsley	1 00	50	One peck Purple Tomatoes	2 50	50
One peck Peas, in pods	1 50	50	One peck Red Tomatoes	2 50	50
One peck Bull Nose Peppers	1 50	50	Best display two varieties Watermelons	2 50	1 00
One peck any other variety Peppers	1 50	50	Three specimens of Cantaloupes, green flesh, any variety	2 00	1 00
Best six plants of ornamental and useful Peppers to be shown in pods	1 50	50	Three specimens of Cantaloupes, yellow flesh, any variety	2 00	1 00
One peck Early Irish Potatoes	2 50	1 00	For best display of Vegetables	12 00	5 00
One peck Late Irish Potatoes	2 50	1 00	Celery, any variety, six stalks	1 50	50

An Appeal

is made to the Farmers of Virginia to come forward and make the Fair a success. It has always been understood that the aid and support of those residing outside of our cities, the actual tillers of the soil, the producers of the wealth of our Commonwealth, was essential to the success of an institution of this character, and the management desires it expressly understood that the aid of everyone in the State is solicited and will be appreciated—be he the Exhibitor of a bunch of salsify or a herd of cattle.

The Fair is Here to Stay. "THE FIRST WEEK IN OCTOBER."

1909

VIRGINIA STATE FAIR

1909

All questions promptly answered; write for folder of FARM PRODUCTS DEPARTMENT.

Address: MARK R. LLOYD, General Manager, RICHMOND, VA.

have to be a very heavy rain indeed which the land will not absorb and dispose of without forming gullies. The reason why the rainfall causes gullies is because it cannot get down into the land because the subsoil is too compact. Open this and it will take in the water and conserve it for the use of the crop. It is rarely that we have more moisture in the hill land than the crop needs to mature it. Where, owing to special conditions, it is necessary to terrace, the terraces should be kept as nearly on the level from end to end as possible, so as to prevent the water accumulating at points and breaking the terrace. The Boston Brady Mfg. Co., of Atlanta, Ga., sell terracing instruments.—Ed.

Curing Tobacco.

I am anxious to know exactly how sun-cured tobacco is cured. I moved here (Hanover county) from the bright tobacco belt, and know nothing at all of the methods of curing without artificial heat. I have been told that a sun cure tobacco it is cut and hung in a barn until cured. Now, I call that air cured. Will some practical, experienced farmer let me hear directly from him in regard to this matter? I will repay postage.

I see a great deal written on plowing. I think most people wait too late to plow and plow too shallow. I use a No. 1 Dixie and find none better. I do not like the Iron Age tools. I have a cultivator of that make and it is too weak, breaks too easily. W. L. STONE.

Hanover Co., Va.

Sun curing tobacco is only a modification of the air curing system. Instead of being taken directly to the barn after it is cut it is hung on a scaffold in the field and allowed to partially cure there and is then taken to the barn later and fully cured out there by the air. We shall be glad if some of our subscribers who make this type of tobacco will fully describe their method and give particulars of the time the tobacco should hang on the scaffold before being taken to the barn.—Ed.

Dissolving Bones.

Please tell me how to dissolve old bones so they may be made useful as a topdressing.

C. W. BAIRD.

James City Co., Va.

The only way to dissolve bones so that they can be used as a fertilizer is to use sulphuric acid upon them and this is work which is apt to be attended with risk, as the acid is very corrosive and unless carefully handled, my easily cause serious burns. They will gradually become soft and capable of being crushed up if mixed with ashes and kept moist with water.—Ed.



Country Water Works Outfit

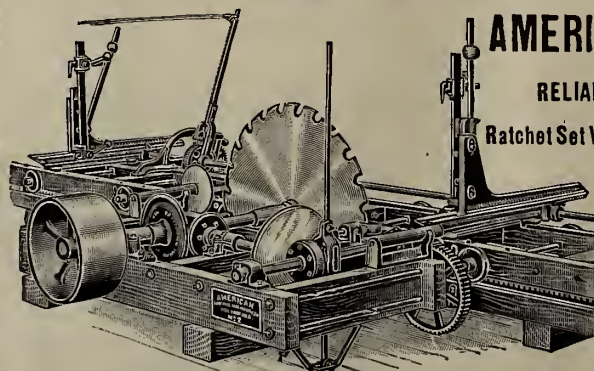
You can have running water anywhere you want it, in the house, the barn, or on the grounds—in fact you can have all the conveniences that can be obtained from connection with city water works—by erecting on your place a

GOODHUE WINDMILL

and tank outfit such as is shown here. We can give you the tank on a separate tower if you prefer it that way.

Goodhue Windmills have an engine way top (they work like an engine); they have double arms of heavy channel steel, giving more than double strength; they govern perfectly in all kinds of wind; they have a practically noiseless brake; they are made in sizes and styles to meet all requirements, and they are sold under a stronger guarantee than any other. Send to-day for FREE WINDMILL BOOK.

APPLETON MFG. CO.,
134 Fargo St., Batavia, Ill., U. S. A.



AMERICAN SAW MILLS

RELIABLE! FRICTION FEED

Ratchet Set Works, Quick Receder, Duple

Steel Dogs. Strong, ACCURATE AND RELIABLE

Best material and workmanship, light running; requires little power; simple, easy to handle; won't get out of order. BELT FEED MILLS in all sizes.

Log Beam Carriages can be furnished with any of our mills.

No. 1. Warranted to cut 2,000 feet per day with 6 H. P. engine. Seven other sizes made. Also Edgers, Trimmers, Shingle Machines, Lath Mills, Rip and Cut-Off Saws, Drag Saws, Cordwood Saws and Feed Mills. Catalogue sent free.

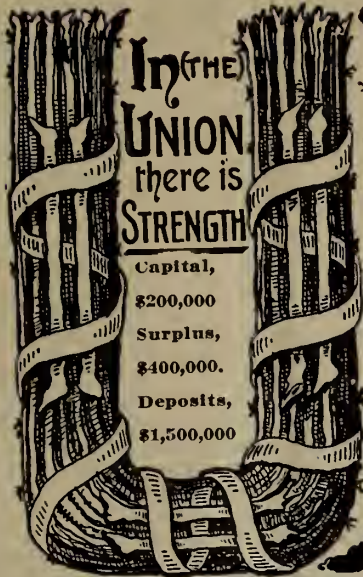
"Rowe, Mass., October 24, 1905.—I have a No. 1 American Saw Mill and send you an order for another just like it. I run it with my 8 H. P. portable gasoline engine; have sawed 5,000 feet of lumber in ten hours with it without any trouble. I use a 48-inch saw.

Yours truly,

BRADLEY C. NEWELL."

AMERICAN SAW MILL MACHINERY CO., 137 Hope St., Hackettstown, N. J.
OUR AGENTS.—Watt Plow Company, Richmond, Va.; R. P. Johnson, Wytheville, Va.; Hyman Supply Company, New Berne and Wilmington, N. C.; Gibbes Machinery Company, Columbia, S. C.

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Money hidden away in the house is in danger of being stolen or lost, while at the same time it is "dead", being denied the privilege to grow. Place your savings in a reliable bank where they will yield you an income, and where your money will have absolute protection.

The Oldest, Strongest and Safest Savings Bank in the South

Pays Interest at 3 Per Cent, Compounded twice a year.

UNION BANK OF RICHMOND, 1107 E. Main St., Richmond, Va.

Write for our Method of "BANKING BY MAIL", Mention this paper.

CASE CRANK SHIFT CULTIVATOR

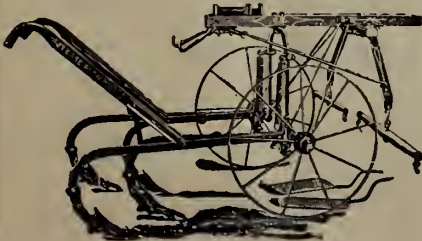
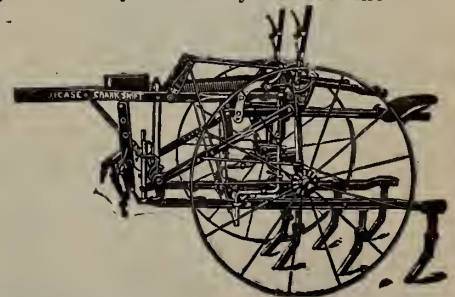
This Cultivator is a combination of two popular types—the "Crank Shift" and "Pendulum Swing"—the best features of both being combined in it.

The Shift.—The shifting or dodging of the gangs is done by a straight forward and back movement of the feet. The leverage is so powerful that it is done with practically no effort, and the gang responds so quickly that crooked corn can be perfectly cultivated.

The Levers.—When at work the levers are down. Raising them a few inches brings the coil lift springs into play, and the gangs are lifted high without effort on the part of the operator. Mounted on the main levers are racks and short levers used in regulating the depth of cultivation with their gang, each independent of the other. To cultivate deep with either gang, it is only necessary to set the short lever backward or forward to cultivate shallow. By this ingenious arrangement of levers, one gang can be lowered to follow a dead furrow, and the other raised to cultivate a ridge, or both lowered in crossing a furrow or low spot. Setting the gangs with the short lever has no effect on their being lifted full height out of the ground with the main levers.

The Telescope Axle.—Like all other features, this one is perfect, and permits a range of adjustment between wheels from 44 inches out to 52 inches.

The Wheels.—The wheels are made with removable and capped hub—the kind that can be greased right without removing anything but the cap. Better than dust-proof, for every greasing forces out all the old greases and any dirt that may have gotten into the bearing.



CASE WALKING CULTIVATOR

Has adjustable coil-lifting springs which are attached to a sleeve with a coupling on the forward end of the gangs instead of the gangs themselves.

When in action the adjusting springs come immediately over the axle, but as the gangs are raised from the ground the springs are carried out from the center and increase in pressure as the handles are raised.

OUR COMPLETE CATALOGUE, GIVING PRICES ON ALL FARM MACHINERY, SENT FREE ON REQUEST.

THE IMPLEMENT CO.

1302 E. MAIN STREET

RICHMOND, VA.

Nitrate of Soda for Lawn.

Will you kindly tell me how to use nitrate of soda as a fertilizer for a lawn? I have tried sprinkling the dry nitrate over the lawn, but with poor success. I want to use it as a solution. How much should I put in a gallon of water, and how often should I use it?

(Mrs.) E. L. WINSLOW.

King Co., Wash.

Use a tablespoonful in a gallon of water and apply once or twice a week.—Ed.

Cement Blocks for Barn and Silo Building.

Will you kindly inform me whether a wall made of cement blocks (8-inch) will be sufficient support for a two-story barn, one-half story under ground. Also, whether the same will be sufficient to build a silo 8x10 feet and 16 feet high, same to be built square, and in the barn, one side to make a part of wall of the barn. Will a silo of this size keep as well as a larger one, say, 16 feet?

Hanover Co., Va. J. C. REDD.

We doubt very much whether a single, eight-inch block wall will be strong enough for a two-story barn unless the blocks are reinforced with

steel tie rods. Better write the Atlas Portland Cement Co., Department 116, 30 Broad St., New York City, and ask them to send you their hand-book on Concrete Construction on the Farm. This will enable you to decide on the proper way to build. As to the silo, we do not think this will be strong enough to resist the pressure built only with the blocks.

It should be reinforced with steel rods in the walls. It would be better in building to cut off the square corners in the inside, making it practically eight-sided. Square corners never allow the silage to settle well and make pockets to hold air to spoil the silage. A round silo always keeps the silage better than a square one.

There will be less waste of silage in a larger one than in one only 8x10 feet, if you have stock enough to eat the silage taken off in layers of six inches or more thick each time of feeding. Depth, however, is of more importance than surface area in securing a good silage, and sixteen feet high should give you depth enough to compress the silage sufficient to keep well, though if we could get twenty or twenty-five feet we would do so. If you would write Professor L. Carrier, of the Experiment Station, Blacksburg, Virginia, he would give you valuable help in this matter as he has had practical experience in building concrete silos.

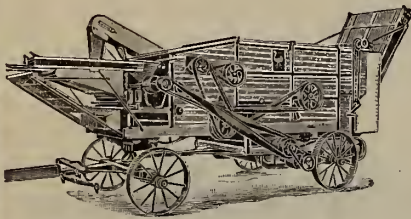
—Ed.

Alfalfa Growing.

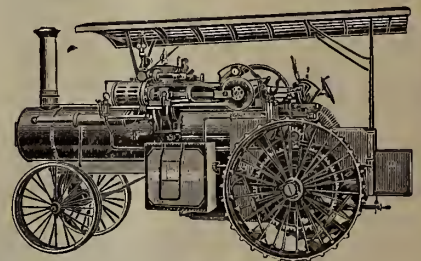
Your advice and criticism of my ideas on sowing alfalfa would be highly appreciated. I have five acres of dark grey chocolate soil which is well set in German clover, now in full bloom. As soon as the clover is dry I shall plow it under, as I understand it is more beneficial at this stage than at any other. The land will then be cut fine by four horses to Clark's twenty-disc cutaway harrow and seeded to peas, one bushel to the acre. The peas will be cut for hay and the stubble will be plowed under at once. The land will be gotten in fine order by running the cutaway harrow over it each way or a sufficient number of times to make the soil as fine as a garden plot. I will then use the following fertilizer, one thousand pounds each to the acre, getting it in with a drill: Lime, Tennessee floats, or ground phosphate rock, which cost about \$7.50 per ton, delivered at my railroad station. I will use floats at \$7.50 per ton instead of bone at \$30.00 per ton. The floats have 28 per cent. of phosphoric acid and the bone has only about 14 per cent.. I will use cotton seed meal for ammonia and some potash. The last two fertilizers; viz., cotton seed meal and the potash, I would like you to advise me what amount of each to use to an acre. Powhatan Co., Va. R. P. BURWELL.

In this issue you will find two ar-

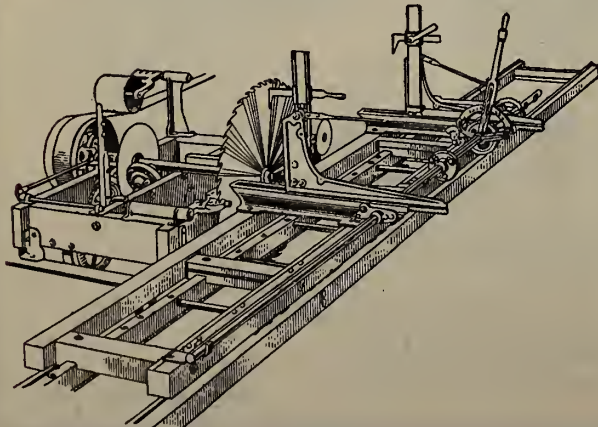
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**Engines
Threshers
Saw Mills**



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Machinery built to give the best

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Best Ginning Most Cotton Greatest Profits

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MUNGER

THE PERFECT SYSTEM

The famous MUNGER System is a saving of time and power, and will handle cotton too wet for any other gin. The MUNGER Separator, Lint Flue System and Battery Condenser decidedly improve the sample of the cotton, as compared with any other gin.

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ticles dealing very fully with the growing of alfalfa. Carefully read these and you will have about the best advice you can obtain on how to proceed. Commenting on your proposed method, we would say that we would not wait for the crimson clover to become thoroughly dead before cutting it into the land. If you do this you will fill your land so full of crimson clover seed which will germinate amongst the peas and subsequently in the alfalfa that you will run a risk of it smothering out the alfalfa. Cut the crop into the land before the seed is fully formed and ripened and then you will avoid much of this trouble and yet get great good from the vegetable matter and the nitrogen on the roots. Young alfalfa is easily smothered out by a more strongly growing crop and crimson clover, when turned under after the seed is ripe, makes usually a very heavy growth in the fall. The pea stubble, after the vines have been cut for hay, would be better cut in with the disc rather than plowed down. Plowing the stubble down has a tendency to cause a loss of the nitrogen gathered on the roots and the turning up of new soil by the plow brings weed seeds to the surface to trouble the alfalfa. You will be able, with the disc, to get a good seed-bed and avoid these two difficulties. As to the fertilizer, the

lime and phosphate rock are all right. Put the lime on when the pea stubble is being cut into the land and let lay for a week or ten days before applying the phosphate or floats. As to the cotton seed meal, you will not need to apply any nitrogenous fertilizer. The clover and the peas will have supplied enough of this to start the alfalfa and after it has commenced to grow it will get its own nitrogen from the atmosphere. It may be well to use some potash though we think the lime will probably released sufficient from your soil to meet the needs of the alfalfa. Anyhow, fifty pounds of muriate of potash per acre would be ample to apply.—Ed.

GOOD HOUSEKEEPING.

Fried Chicken in Batter.

When the spring chickens are very small it makes them go farther to dip the pieces in batter before frying. Prepare the chicken as usual for frying, always, if possible, at least a day before using. Dip each piece in batter made with one pine of flour; two eggs, salt, pepper, and milk enough to make a stiff batter, about a cup and a half, fry at once in deep, boiling fat, and lay on a collender to strain off the grease, garnish with parsley; serve hot.

English Peas.

Shell the peas and throw them in

cold water until about forty minutes before dinner. Put fresh water in a closed pan and add a little salt; let it boil and put the peas in; boil gently until tender; strain off the water; butter generously, and serve hot.

Boiled Potatoes.

Put the new potatoes in the stove for five minutes and then transfer them to boiling water, and let them boil; if large, nearly an hour; pour off the water, tilt the top of the pot to one side so that the steam can escape, and keep them hot for five minutes longer; serve them in the jackets or not, as you prefer.

Green Pea Fritters.

Boil a quart of peas; you may use those not quite tender enough for using in any other way. While hot mash them and season with butter, pepper and salt; make a batter, with three eggs, a cup of flour, a cup of milk, and a teaspoon of baking powder; stir the peas into this and beat hard. Cook on hot, well greased griddle, and fry on both sides.

Scalloped Cauliflower.

Boil the head of the cauliflower in a close vessel with water enough to cover until it is tender, then cut off the clusters and pack it in a pudding dish with the stems down. Make a dressing of one cup of stale crumbs, two tablespoons of butter, one egg, nearly a cup of milk, sea-

son with salt and pepper, and pour the dressing over the cauliflower. Bake fifteen minutes, covered, and then take off the cover and brown nicely.

Breakfast Puffs.

One quart of milk, a pint of flour, four eggs beaten light, separately, salt, and a dust of baking powder; beat hard and bake in a hot oven in puff pans. Do not take out until the crust is well formed, else the puff will collapse.

Corn Muffins.

Boil a cup of grits until well done, and let it set aside to cool; take one quart of meal, three eggs, one teaspoon of soda, and enough butter-milk or clabber to make a moderately thick batter, add the grits; beat hard and add two tablespoons of lard; bake quickly in muffin pans and serve very hot. They are better if not very thick.

Fried Mush.

Boil a quart of water with a teaspoon of salt in it, while boiling add slowly a cup and a half of sifted corn meal; stir constantly until the mass is smooth, and then let it boil for two hours. Turn it into a pan and in the morning cut in slices and dip in meal and fry in hot fat.

Sponge Roll.

Six eggs beaten separately until very light, four cups flour, three cups sugar, one cup cold water, one tea-

spoon of soda, and two of cream tar-tar, sifted in the flour twice; flavor with pineapple extract and bake in sheets in the biscuit pans. Turn it out on a damp towel and spread jelly or any other preferred filling over it and roll. Put a dry cloth around the roll until it is cold.

Caramel or Burnt Sugar Flavoring for Cream.

Clean an iron frying pan until like new, then put into it three cups of white sugar, set it over a hot fire and let it melt slowly and burn. When a rich dark brown, pour into it three cups of boiling water and stir vigorously; let it boil until as thick as molasses, then season your cream to taste with it. A cup of blanched and chopped almonds is a great improvement in anything you season with carmel. Caramel will keep indefinitely.

CARAVEN.

DETAILED INDEX.

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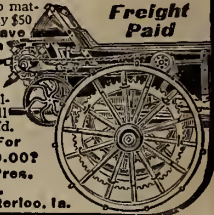
Look for our advertisement in the next issue.—McComb & Block, Live Stock Commissioner Merchants, Rich-mond, Va.

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 On a Manure Spreader
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This is just a little ad—but a postal will bring my Big Book—and give you my \$50.00 Saving Price and Special Proposition. You can save as much answering this little ad-vertisement as if it covered a page.

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Will You Pay a Penny For The Postal and Save \$50.00? Address Wm. Galloway, Pres. WM. GALLOWAY CO. 219 Galloway Sta. Waterloo, Ia.



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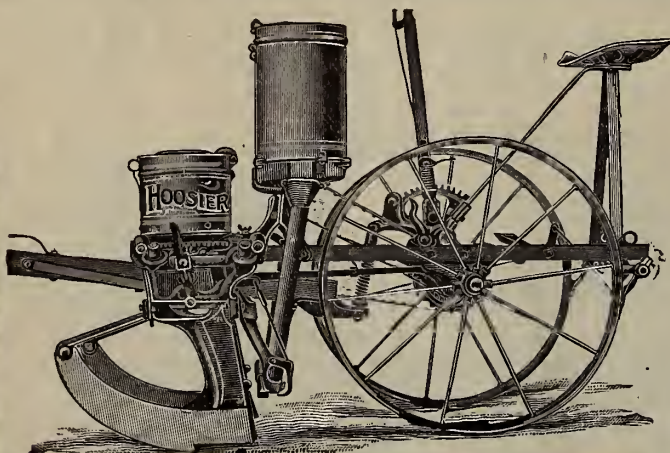
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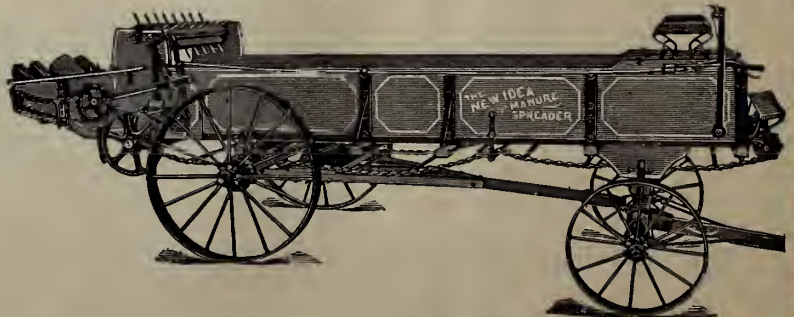
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Built like a wagon—Axles same length. Tires 4 inches wide—Best on earth. Write for special offer on first machine sold in each county of our ter-ritory.

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We have for sale, at reasonable prices, a few select Cows rich in the blood of the great Golden Fern's Lad, Imported Fox, Tormentor, King Koffee, and other well-known families, with calf to Imported Stockwell 75264 (the sensational bull that sold for \$11,500, world's record price at an auction sale), Baronetti's Golden Lad 67908, Eminent's Goldmont Lad 70268, Fern's Success 72247, and other noted sires.

Several young bulls by Imported Stockwell 75264, Baronetti's Golden Lad 67908, and Golden Lad of Berlin 75310, one ready for service.

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FREDERICKSBURG, VA.

WASHINGTON NOTES.

Bond Issues for Good Roads.

Washington, D. C., May, 1909.—County bond issues for good roads building is strongly advocated by Maurice O. Eldridge, of the Office of Roads Inquiry of the Department of Agriculture, as the most sensible method of local road improvement. If this is such a good thing, why, it may be asked, wasn't it as good fifty years ago as now, and why hasn't it been invoked to a greater extent by various progressive communities?

The answer is that good road building is a science and not one to be mastered in a day, either. Many auspicious movements have been started for extensive good road construction much longer than fifty years ago; but have failed ignobly because of lack of knowledge of fundamental principles. It may be said without fear of contradiction that there never was such real progress in, nor such opportunity for, good road work as there is right now. The Agricultural Department is not only willing and anxious to freely give the best expert advice to any county or community desirous of road improvement, but it will exercise a supervisory interest over construction if desired, so that

there is no longer the ancient danger of waste or error. The Department can point to many localities which are the most striking object lessons of

First, the entire practicability of constructing enduring roads where they never existed before, and,

Second, the reduction of taxes following construction and the general upbuilding of the community so improved.

"Money from bond issues for good roads," says Mr. Eldridge, "means that a county is able to secure immediate benefits from improved roads instead of by instalments, as would be the case under a cash system of taxation. The county has the roads and receives the benefit from them while it is paying for them.

"Again, instead of getting piecemeal and expensive construction, where the money is all in hand the work can be laid out in a comprehensive manner and accomplished in the most effective and economical way.

"Bonds for road improvement frequently bring enough premium to pay several years' interest on the principal. Ninety thousand dollars' worth of 5 per cent. bonds for road im-

provement sold recently for \$119,000 in Bradley county, Tennessee."

Spraying for Late Blight.

In overcoming late blight, the Wooster Station asserts that little can be expected from selection as in the case of early blight, but that spraying with Bordeaux mixture is quite effective. In six plats, half of each of which were sprayed and half left unsprayed, the yields were ninety-nine pounds, ninety-six pounds, ninety-eight pounds, seventy-four pounds, fifty pounds, and one hundred and sixteen pounds for the unsprayed portion, and 146 pounds, 113 pounds, 106 pounds, 84 pounds, 112 pounds, and 150 pounds, respectively, for the sprayed portions.

Again, the Wisconsin Station sprayed 30 acres at a cost of \$3.70 per acre with a net gain ranging from \$15.50 to \$36.00 per acre. Another series of experiments was carried on in which the average gains on four fields were at the rate of 18.9, 40, 47, and 29 bushels per acre.

GUY ELLIOTT MITCHELL.

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Trotting Horses and Jersey Cattle of the richest breeding and most fashionable strains of blood. Our herd of Jerseys has been selected with great care, and includes choice representatives of families, both noted as producers and show ring winners.

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Akar, 42021, chestnut horse, 4, by Aquilin, 2:19¾, son of Bingen, 2:06¼; dam Pavetta, by Pistachio, 2:21¾. Akar paced a trial in 2:15¼ with quarters better than 30 seconds last season at 3 years old.

Berro, 41821, trotter, bay horse, 4, by Bingar, son of Bingen, 2:06¼, dam Keshena, by Kremlin, 2:07¾.

Fee for either horse \$25 season, with return privilege. Address,

GRIFFITH & SAUNDERS,

Acca Stock Farm,
Richmond, Va.

H. G. CARTER. W. J. CARTER.

H. G. CARTER & COMPANY

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HAY, GRAIN, MILL-FEED.
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JACK COOK, 2504

Gray horse, trial 2:26¼, trotting, by General Wilkes, 2:21¾, dam Irene Fell, dam of Johnny Agan, 2:05¼, etc., by Mambrino Abdallah, 2201. Jack Cook has sired Capt. Cook, 2:20¼, and other winners.

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Emperor Wilkes, a grand type of the trotting-bred coach stallion. \$15 insurance.

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Bay horse, 16 hands; weight 1,200 pounds, foaled 1902. Sired by Dumbarton, 33,799, dam Maud Elliver, by Conductor, 12,256.

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Chestnut horse, by Hindoo, dam Red and Blue, by Alarm, second dam Maggie B. B., dam of Iroquois, winner of the English Derby. An impressive thoroughbred sire.

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Trotter, bay horse, 16½ hand, weight 1,250 pounds, foaled 1904, by Russell Rex, 16728, dam Penelope Whitley, by Carlos, 6750. A grand type of the trotting bred coach stallion, with beauty of form and high finish.

Terms \$10 single leap; \$20 season; \$25 insurance.

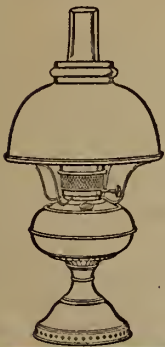
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All the necessary family cooking may be done as well on a New Perfection Wick Blue Flame Oil Cook-Stove as on the best coal or wood range.

By using the "New Perfection" Oil Stove, the annoyance of an overheated and stuffy kitchen is entirely avoided, even in midsummer. The scientific construction of the

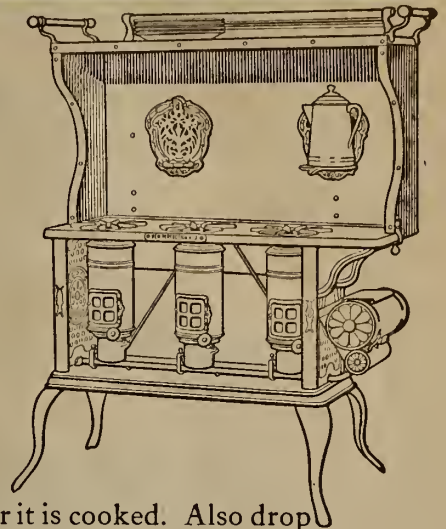
NEW PERFECTION Wick Blue Flame Oil Cook-Stove



ensures quick work and a cool kitchen. The "New Perfection" has a substantial CABINET TOP for warming plates and keeping food hot after it is cooked. Also drop shelves on which to set small cooking utensils—every convenience, even to bars for holding towels. Made in three sizes. Can be had either with or without Cabinet Top. If not at your dealer's, write our nearest agency.

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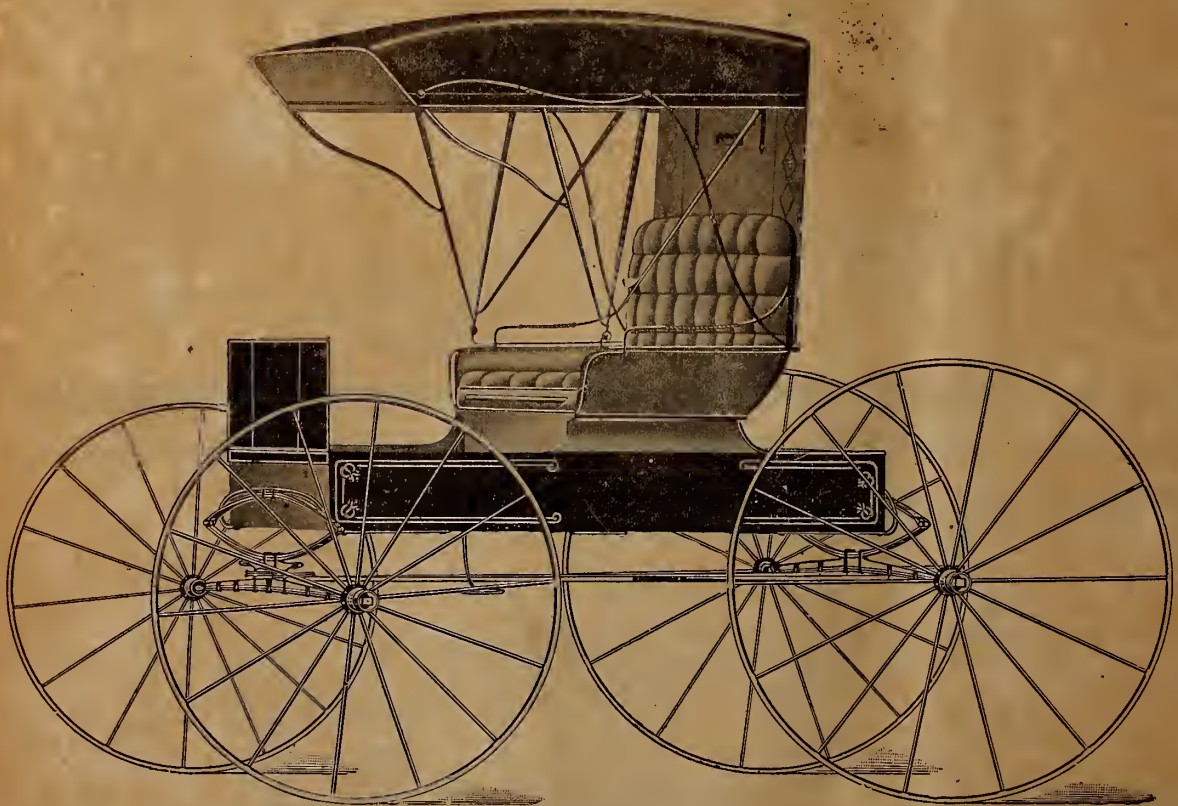
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We have built up a large vehicle business by selling high grade rigs at wholesale prices, for our profit usually is not more than 10 per cent. Our factory is in Virginia, and freight to you on any rig will be very little. We also carry a stock in our warehouse in Richmond, and can ship you either from our factory or from Richmond, as you may desire.

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We have just gotten out some special styles for this season, so be sure and send for our catalogue before buying. Remember that we are headquarters for everything the farmer needs.

The Spotless Company

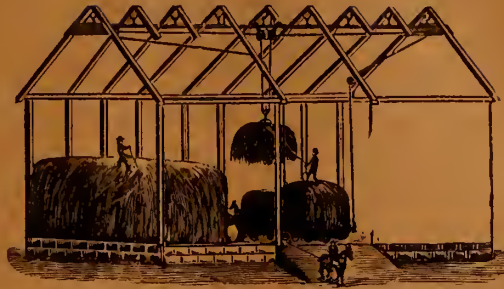
122 SHOCKOE SQUARE, RICHMOND, VA.

THE SOUTH'S MAIL ORDER HOUSE

Labor Saving Implements, Machinery and Vehicles

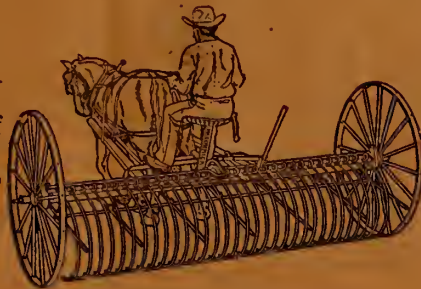


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Porters Hay Carriers, Hay Forks, Hangers and Track carried instock. Let us estimate for you on complete outfits.

The McCormick Self Dump Rake, Best by test.



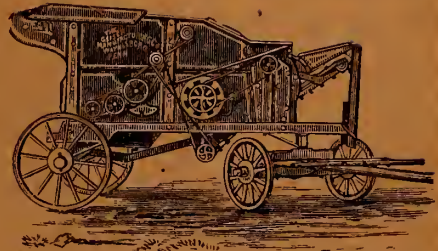
Agents for Geiser Engines, Geiser Threshers and Saw Mills Modern, Up-to-date in every respect. Get our prices before you buy.



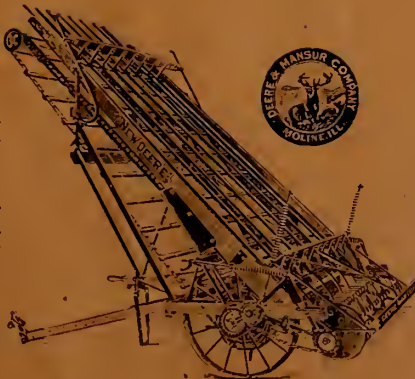
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1904 Largest Year in Previous History of the Company	\$ 73,876,037 00
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1907 Largest Year in Previous History of the Company	102,242,289 00
1908 Largest Year in Previous History of the Company	109,773,709 00

SURPLUS ACCOUNT DECEMBER 31, 1908.

Dividends apportioned for payment in 1909	\$ 11,199,411 56
Deferred Dividends on policies maturing after 1909	16,847,000 00

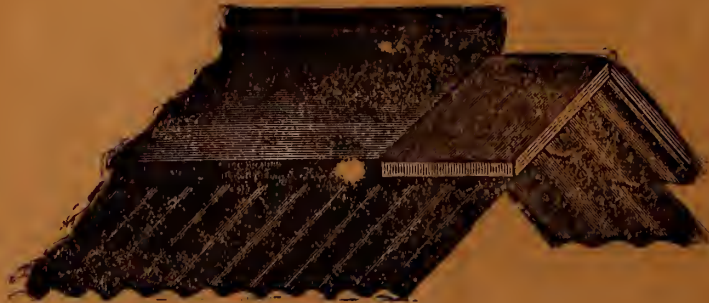
Total Future (assigned) Dividends	\$ 28,046,411 56
Unassigned Surplus	4,465,640 40

Total Surplus Funds (on basis of values furnished by New York and Massachusetts Ins. Depts.) \$ 32,512,057 96

T. ARCHIBALD GARY,

General Agent for Virginia and North Carolina, 601 Mutual Assurance Society Building, RICHMOND, VA.

- - Corrugated V-Crimp Roofing - -



painted and galvanized
"Bestoid" Rubber Roofing
Carey's Magnesia Cement Roofing

Tarred Paper, Tin Plate, Lime, Cement, Hardware, Terra Cotta Pipe, Wire Fence, Drain Tile, etc.

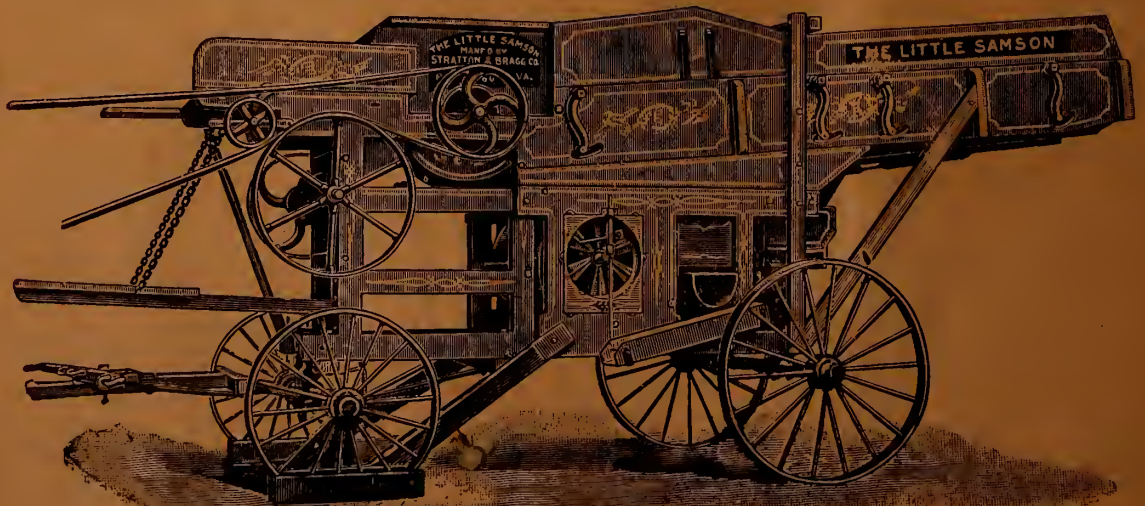
SEND FOR CATALOGUE

BALDWIN & BROWN.

1557 E. MAIN ST., RICHMOND, VA.

THE LITTLE SAMSON PEANUT PICKER

AND GRAIN THRESHER COMBINED



The above machine can be bought as a Peanut Picker and at a small additional cost the Grain Threshing Attachments can be secured, which will enable the same machine to thresh Grain; or we can furnish a straight grain machine for grain only.

Simplest, lightest and most durable machine on the market, and sold at reasonable prices. Furnished either mounted or unmounted. Write for prices. Also see our advertisement on another page of our Little Samson Vertical Engine with Pickering Governor.

STRATTON & BRAGG CO.,

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