

Established 1840.

THE

Seventieth Year.

Southern Planter

A MONTHLY JOURNAL

DEVOTED TO

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

OFFICE: 28 NORTH NINTH STREET, RICHMOND, VIRGINIA.

THE SOUTHERN PLANTER PUBLISHING COMPANY.

Proprietors.

J. F. JACKSON, Editor.

Vol. 70.

MARCH, 1909.

No. 3.

CONTENTS.

FARM MANAGEMENT:

Editorial—Work for the Month.....	217
Some Notes on February Planter.....	221
The Application of Commercial Fertilizer.....	221
Notes About Soil Acidity.....	224
Marling Land	224
Plowing	225
Restoring Humus to the Soil.....	225
The Early Cotton	226
The Plow Question	227
What Can Be Done with Thin Land in Virginia	227
Notes and Comments on the February Issue	228
Indian Runner Ducks	229

TRUCKING, GARDEN AND ORCHARD:

Editorial—Work for the Month.....	230
Formulae for Spray Mixtures.....	231
Spray Calendar for 1909	232
Notes on Spraying and Spraying Ingre- dients	233
Inspection for Peach Yellows and San Jose Scale	233
The Georgia Fruit Exchange	234
Virginia Apples in New York.....	235
Chestnut Tree Disease	236
A successful New York Truck Farmer....	237
Pruning the Apple	237
Spraying the Orchard	238
Inbreeding	239

LIVE STOCK AND DAIRY:

Tests of a Virginia Herd of Holsteins....	240
The Beef Breeds and Milk Production....	240
How to Make Farming Profitable.....	241
Hog Cholera	241
Sales from Lynnwood Stock Farm	242
Dairying that returns \$59.00 to \$98.00 Per Acre	242

THE POULTRY YARD:

Poultry Notes	243
Marketing Eggs	244
A Contribution to the Artificial Incubat- ion Question	245
A Simple, Convenient Poultry House....	247

THE HORSE:

Notes	248
Horse Breeding for Tidewater Virginia..	249

MISCELLANEOUS:

The All-Round Farmer	250
Tile Drainage	251
Notes on An Ohio Trip	251
Greater Highways Convention	253
Dark Tobacco Fertilizers	254
Horses for Farm Work	254
Taxing Automobiles	254
Enquirers' Column (Detail Index p. 340) .	298
Advertisements	255

PUBLISHERS' NOTES:

SUBSCRIPTION, 50c. PER YEAR, IN ADVANCE.

Most Wonderful Offer Ever Published!

Save 30% to 50% on Your Purchases!

Chicago House Wrecking Co.'s 1909 Sale of Merchandise!

From Sheriffs', Receivers' and Manufacturers' Sales!

Lumber and Building Material!

100,000,000 feet of Lumber for sale. THINK OF IT. The Chicago House Wrecking Co. offers you an opportunity to buy Lumber and Building Material today at prices at least 50 per cent below what you could purchase it for a year ago. We can do it because we buy in such enormous quantities direct from the saw mill that we are able to control their output; we are also continually buying at Forced Sales. The Lumber we're offering consists of the very highest grades manufactured. Nothing "WRECKED" about it but the prices. It is clean stock and as good or better than your local dealer sells. We have Lumber of every kind. Lumber for your house or your barn, your church, meeting house or building of any kind.

Never again will Lumber be offered at the low price we are selling it for today. This is not an idle statement. It is made after the most careful thought. Every year the supply is diminishing and the manufacturers must get more money for it, but we say to you that if you are ready to buy now, you can save from 30 to 60 per cent.

Furniture & Household Goods!

Our wonderful Furniture Catalog containing hundreds of pages of genuine bargains with beautiful illustrations in natural color effects is sent free on application. 10,000 bargains representing high-grade, brand new Furniture, Carpets, Rugs, Linoleum, Stoves, Office Fixtures and General Supplies. Bargains from Forced Sales of every kind, and nothing of the shoddy nature about the goods, either. Not the kind you would buy from the regular run of merchandise houses, but the sort of good furniture that is built "for keeps." Manufactured for city trade and now offered to you at as low a price as you can buy it if you were right in Chicago at our warehouse. This is a chance you must duly appreciate. We can supply your home complete, and we will do it at money-saving prices in every instance.

You can buy everything you need to furnish your home. Every article is covered by a guarantee so broad that you cannot go wrong. Favor us with your order. Write for our wonderful Bargain Catalog and let's convince you our prices are right. Write us today.

Hardware Bargains!

Steel Shovels 30c, Steel Hammers 25c, Handled Axes 50c, Steel Hatchets 30c, Electric Door Bells 60c, Hot Lunch Dinner Pails 20c, Meat Cutters 75c. These are but samples of our ability. We have everything complete in the hardware line, Door Locks and Knobs, Builders' Hardware in general—a new clean stock of hardware at wrecking prices.



STEEL ROOFING, \$1.60 PER SQUARE

That's our price on our new high grade, semi-hardened steel roofing. \$1.60 is our price for first; \$1.85 for corrugated or V crimped. This roofing is light weight. It comes in sheets 22 in. wide by 6 or 8 ft. in length. It is strictly brand new, first-class. At this price we prepay freight in full to all points east of Colorado except Oklahoma or Texas. Prices to these and other points on application. This freight prepaid proposition applies only to this roofing advertisement and has nothing to do with any other offer. Write today.



WATER SUPPLY OUTFITS, \$48.00

You can live in city comfort even though your home be on a farm. From \$48.00 up wards you can buy a complete outfit needed to give you these comforts. With our comprehensive instruction book you can install the outfit yourself. Let's tell you more about it. Our interesting book on water works systems is free for the asking. Remember it gives ample fire protection and reduces your rate of insurance.



Gasoline Engines, 2 H.P. \$49.75

A strictly high-grade, brand new, fully guaranteed engine, complete in every respect. Price includes electric igniter, battery lubricator, and in fact a complete outfit ready for use. Here is an engine simple to operate, which we sell on 30 days free trial, so you take no chances. We give a five-year binding guarantee against defective workmanship or material. 4 H.P. \$96.75; 2 H.P. \$177.50; 10 H.P. \$265.00.



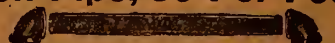
20-Inch High Galvanized Fencing,

Per Rod 15c. 20,000 rods of new square mesh and diamond mesh fencing for sale. It is put up in rolls containing 10, 20 and 30 rods to a roll. It's new, clean stock, bought by us at manufacturer's sale and now offered at 30 per cent less than regular prices. Better buy new while our stock lasts. We have but a limited supply for sale and orders are rolling in.



Iron Pipe, 3c Per Foot

Wrought Iron Pipe with couplings. Thoroughly overhauled and practical for further service; in random lengths. Prices per foot: 1/2 in. 2c, 3/4 in. 2 1/2c, 1 in. 3c, 1 1/4 in. 4c, 1 1/2 in. 5c, 2 in. 7c, 2 1/2 in. 11c, 3 in. 15c, 4 in. 21c. Larger size in proportion. Our high grade lap welded light weight iron pipe, with new threads and couplings is the best used pipe material ever offered. Satisfaction guaranteed.



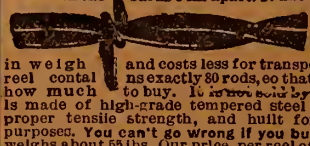
Rubberized Galvo Roofing, \$1.25 per sq.

The best ready roofing on the market. Its base is pure mineral wool and genuine asphalt. No tar, residuum or other injurious matters used in the construction of this roofing. It is positively guaranteed to give lasting service. We have it in three grades, 1-ply at \$1.25 per square; 2-ply at \$1.40 per square and 3-ply at \$1.75 per square. By a square we mean 108 sq. ft. or sufficient to lay a square. Our price includes nails, caps and cement to make the laps. At this price we prepay the freight in full to your railroad shipping point to all points east of Colorado except Oklahoma or Texas. Prices to those points on request.



Barbed Wire, \$1.80 for 80 Rod Reel

10,000 reels of this wire for sale. It's the best galvanized material on the market. It is made of No. 14 wire with the barbs 3 in. apart. It has all the strength of the regular grades of barbed wire but is lighter and costs less for transportation. Each reel contains exactly 80 rods, so that you know just to buy 10 reels for the weight. It is made of high-grade tempered steel wire, with the proper tensile strength, and built for barbed wire purposes. You can't go wrong if you buy it. Each reel weighs about 55 lbs. Our price, per reel of 80 rods, \$1.80.



DOORS 40c; WINDOWS 29 CENTS

Bargains of all kinds. Our special catalog shows a marvelous aggregation of bargains. You can't be right until you have a copy of it. Here are some quotations from our new price maker: Barn Sash 56c; Storm Sash 70c; Stall Sash 21c; Hot Bed Sash \$1.55; Window 50c; Panel Doors 80c; Glass Doors \$1.75; Window Frames \$1.25; Door Frames 50c; Base Angles 2c; Corner Blocks 2c; Base Blocks 3c; Inside Trim 60c; Plate Rails 6c; Stair Newels \$1.55; Stair Rails 7c; Porch Balusters 5c; Porch Rail 8c.



PAINTS, 30c GAL.

This is our high grade Premier ready-mixed paint put up in strong substantial cans and packages. No better mixed paint on the market at this price. We can furnish it in all colors. Covered by a binding guarantee. Barn paints 30c per gal. Cold water paints 35c a lb.



GALVANIZED FENCE WIRE, \$1.50 PER 100 LBS.

At this price we supply our new galvanized wire shorts. They are put up 100 pounds to the bundle. By shorts we mean wire that comes in lengths, ranging anywhere from 50 to 200 ft. It is good for all general purposes. We can supply it in all gauges. Our price on gauge 11, 12 and 14 \$1.50 per 100 lbs. BB telephone wire 50 lb. coils, No. 12, \$2.45 per hundred lbs.; No. 11, \$3.10 per 100 lbs. Order today.



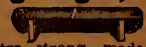
KITCHEN SINKS, \$1.40

That's the price of an 18x30 white enameled cast iron, flat rim kitchen sink. We have the best enameled kitchen sink in one piece, seamless, size 18x30 at 75c. Kitchen sinks with backs from \$1.00 up. White enameled Wash Stands or Lavatories at \$4.00 up. A Lowdown Water Closet outfit with a white enameled tank, toilet and best closet tank manufactured. Complete with hardwood seat and necessary nickel-plated fittings, vitreous wash-down closet bowl, \$11.00.



Hogtroughs, \$1.50

Extra strong, made of heavy 3/4 in. boiler steel. Best shaped tank manufactured, absolutely indestructible, clean and sanitary. All metal, well riveted, stands strong and firm on the ground. Satisfaction guaranteed. Regular price \$2.50 to \$5.00. Our price \$1.50 to \$2.75.



FREE CATALOG COUPON

Chicago House Wrecking Co.

Send me free of all charge your large illustrated Catalog. I saw your advertisement in Southern Planter 166

Name

Town

County

State

P. O. Box

How to Answer This Advertisement

Read carefully all we have to say about the different articles offered for sale. We would advise you to send us your order at once. We will ship C. O. D. where a deposit of 25% in cash accompanies the order, balance to be paid after material reaches destination. If, however, you do not wish to order at once, then we suggest that you tear this advertisement out of the paper, cross such items on the ad as interests you most, fill in the coupon to the left and mail it to us, and we will give you more detailed information. If you do not wish to mutilate the page, just write us where you saw this advertisement and just what items interest you most, and we will send you free of all cost our Catalog with full detailed information. A postal card will do the work. Write us fully today.

Our Wonderful Catalogue!

We publish a catalog showing illustrations and full descriptions of all the various stocks that we have for sale. It will be mailed free of cost to anyone answering this advertisement and following the directions as noted in the paragraph on the left. You need this catalog. It's a book that every wise person must have in his or her possession. It tells the story of all our wonderful business of our Company and of how we have gathered our stocks together, and it shows you the low prices at which we supply these articles to the public. Thousands of customers throughout this land will confirm our statement that our business is conducted honest and fair.



CHICAGO HOUSE WRECKING CO., 35th & Iron Sts. CHICAGO

The Southern Planter.

DEVOTED TO

PRACTICAL AND PROGRESSIVE AGRICULTURE, HORTICULTURE,
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., MARCH, 1909.

No. 3.

Farm Management.

WORK FOR THE MONTH.

The phenomenal mildness of the winter continues to be the subject of remark by nearly all our callers from whatever section of the State they come. To-day (19th of February) a gentleman from one of the counties adjacent to this county called, and said that he had a peach tree in full bloom on his place. The effect of this weather is clearly seen on all fall sown crops. Wheat and winter oats are looking better than they have done for years at this time, and crimson clover has made a splendid growth. One gentleman who was here a week ago said that he could now mow a very nice crop from one of his fields. We are always apprehensive of later severe weather following a very mild winter, as we have long noted that winter rarely fails to assert itself before the spring is on us. The sun, however, is now getting such power that even if we should have a wintry spell it will hardly be able to hold its own long. We hope, however, that we may be spared this, and that as the winter has been so mild we may have a continuance of the mildness through the spring months. We are afraid that if this be not the case, some damage will be done to the fall sown crops, which have made so good a growth, but in any event this cannot be likely to result in serious winter killing, as the plants now cover the ground so well that the roots are more fully protected than usual. The only crop that has suffered so far is the ice crop, which has failed to materialize almost wholly. Except in the mountains little ice has been stored anywhere in the South, and dairymen will miss this much. Fortunately, artificial ice factories have been largely increased throughout the country, and though the cost of this ice will mean an increase in the cost of running dairies, the failure of the natural crop will not mean as it formerly did, an inability to continue dairying to any serious extent.

The work which we advised to be begun in our February issue, of breaking and preparing the land for the crops, should be continued during this month, and we refer our readers to what we then said on this sub-

ject. If this fine weather continues, it will enable the very best preparation of the land to be made before the time for planting arrives. The small average yields made by our staple crops is attributable very largely to the fact that so few farmers put the necessary work into the land before planting the crops. To merely plow the land and harrow it once or twice is not sufficient to fit it to do the best it is capable of. Every particle of the soil should be stirred and broken finely, so as to admit as much air and sunlight into it as possible, and to accomplish this it should be harrowed, rolled and reharrowed several times until no lumps or clods can be found in it. The feeding roots of all plants are the small fine hairs on the extremities and sides of the larger roots. These larger roots are merely the conduits through which the plant food passes from the tiny rootlets to the plant. They themselves gather no food. When you examine the tiny hair-like feeding rootlets, you will realize how utterly impossible it is for these fine rootlets to penetrate and extract from rough, coarsely broken land the food which the plant calls for, to make its growth. This food is all taken up in a liquid condition, and this condition is not found in hard clods and lumps of soil. Each fine particle of soil, when disintegrated from the lump of which it originally formed part, immediately becomes surrounded by a film of moisture gathered by capillary attraction from below and from the atmosphere above, and this dissolves the plant food in the particle of soil, and puts it into a condition for the tiny rootlets to absorb it. In finely broken soil which has been frequently worked these little rootlets run freely and surround and take hold of the small particles of soil, and suck out the plant food, and send it on to the plant. This explains how much more food a crop can find in a finely broken and worked piece of land than it can find in one only partially worked. The inert mineral plant food—the phosphoric acid and potash—which exists in large quantities in almost every acre of our lands is locked up in these particles of soil and requires the action of the air, the moisture and root acids in the rootlets to make it capable of being absorbed by the rootlets. How these rootlets can gradu-

ally get this food out of these particles is well illustrated by their action on a piece of bone which has been buried in the land. We have dug up such a piece which has been in the land a year or two and found it encased entirely with fine rootlets, and many of them had penetrated into the heart of the bone through the little holes which make up the structure of the bone. These rootlets were gradually eating up the phosphate of lime, of which the bone is composed, the acids naturally exuding from the rootlets, and the moisture of the soil enabling them to accomplish this end. In the same way they act upon every particle of soil. Utilize the fine weather we are having, therefore, in working and reworking the land to be planted, and do not be in too great haste to get the seed into the land. We shall have some cold weather yet, and plants cannot grow fast in cold soil and cold weather. The mineral fertilizers—acid phosphate and potash—can be safely applied to the land during this working of it, and thus save time at planting time. These fertilizers will not leach out of the land, but will be made more fully available for the immediate feeding of the crop by being incorporated in the soil some time before the crop is planted. The organic forms of nitrogenous fertilizers, like fish scrap, cotton seed and cotton-seed meal, may also safely be applied to the land in advance of the planting of the crop, as these must all undergo decomposition or rotting before their plant food is available for the plant, and this decomposition is a slow process when the land is cold, as is the case at this time of the year. Nitrate of soda should never be applied until the crop is planted, or better still until it has made a good root growth. This is the most immediately available of all forms of nitrogen, and is rapidly lost out of the soil if the root growth is not active.

We would refer our readers to what we said in our last issue as to the importance of adopting a system of rotation of crops and the abandonment of the old practice of planting one cereal crop after another on the same piece of land. Without the adoption of such a system of rotation the fertility of the land cannot be increased, or even maintained, even with the extravagant use of commercial fertilizers. These crops use the humus or vegetable matter in the soil rapidly and without humus, rich fertilizers lose most of their power to increase the crop yield. Every grain crop should be followed by a humus-making crop to restore the vegetable matter in the soil. The legumes, like cow peas, crimson clover, soy beans, red clover and alfalfa, are the best to use for this purpose, as they not only supply the heaviest crops of vegetable matter, but at the same time they gather nitrogen from the atmosphere and store it in the soil. These crops can be grown with a corn crop and after a wheat or oat crop in the same year, and thus in the one year give a crop for the barn and one for the land to maintain its fertility. In arranging for the planting of the crops this spring keep this rotation system before you all the time, and so locate the different crops that the working, cultivation and saving of them will not interfere with each other, and will result in a few years' time in giving you a farm always pro-

ducing a variety of feed for man and beast, and at the same time increasing in productive capacity. There is no excuse for any farmer who allows his land to become less productive each year. It is simply like a merchant living off his capital. In each case it means ruin in the end.

We want once more to urge upon our readers the importance of exercising more thought and discretion upon the spending of money in the purchase of commercial fertilizers. Too often the purchase of these goods is deferred until the crop is about to be planted, and then a rush is made to the fertilizer merchant, and a few hundred pounds of any brand he has on hand is bought especially if it has a high sounding name—"Mr. So and So's Great Crop Producer"—and it is taken home and applied without any regard to its fitness for the requirements of the land or the crop to be produced. Fortunately most of these stock goods are mainly of the 2-8-2 standard, and therefore, if they are applied freely give a fair supply of phosphoric acid, which is usually the most needed ingredient, but the unfortunate part of the business is that they cost more money than they ought to do simply for this needed ingredient. The two per cent. of ammonia and two per cent. of potash enables the manufacturer to charge more for them, and to justify this charge by the analysis, whilst in actual worth to the farmer as crop producers, they are not worth a cent more than the value of the phosphoric acid in them for the production of any crop. If the land and the crop to be produced needs ammonia and potash, it needs much more than two per cent. of each of these ingredients to be of value to it. For the production of the staple crops of corn, grain and grass the requirement is mainly phosphoric acid in our lands in the South, and the proper course to take is to buy phosphoric acid only in the form of acid phosphate floats or basic slag. This is much cheaper than any mixed fertilizer and more effective. The ammonia which these staple crops need ought to be grown at home on the land. A bushel of cowpeas seeded on two acres of land with a grain drill will supply more ammonia for the use of the following crop than a ton of 2-8-2 goods applied to the land, and will only cost at most \$2 for the peas, and about the same amount for the labor of planting them, whilst the 2-8-2 goods will cost anywhere from \$15.00 to \$20.00 by the time it is worked into the land, and often even more than this. A ton of lime costing \$4.00 to \$5.00, applied to an acre of land will make available more potash than can be bought in a 2-8-2 mixture by ten times, besides improving the physical and mechanical condition of the soil, which the 2-8-2 goods will not do. Besides, this potash is not needed in most of our lands for the production of these staple crops, and therefore need not be bought. Another point which ought also to have consideration in buying these goods is that they are not going to do the good which they ought to do, unless there is vegetable matter enough in the soil to keep it supplied with moisture. Applied to land void of humus or vegetable matter and followed with a dry time commercial fertilizers are practically useless, and in many cases worse than useless. Where land is in this condition the fertilizer should

be mixed with farmyard manure, even if it be only to the extent of a ton or two to the acre, and used in limited quantity until more vegetable matter can be got into the soil by the growing of cowpeas and crimson clover. For the production of the staple crops innumerable experiments have shown that the proper place to apply the fertilizer, and that only acid phosphate, or acid phosphate and potash is for the production of the cowpeas and clover, and these crops, when plowed down or cut into the land will then produce the corn and grain in paying crops. In this issue will be found an interesting article showing how in one year a piece of exhausted land which only made 15 bushels of "nubbins" to the acre, was made to produce seventy bushels to the acre, by the adoption of this system with perfect preparation of the land. For the production of tobacco and truck crops high grade fertilizers are needed, and these crops will pay for the liberal application of them. In our last issue we gave several formulae for mixing these goods for the growing of Irish potatoes. In connection with these formulae it may be said that one or two subscribers have doubted the expediency of using so large an amount of nitrate of soda in the makeup of the fertilizer, as this is so soluble a fertilizer that there is a possibility of part of the nitrogen being lost before the crop could utilize it. There may be some force in this, though Mr. Hicks, who prepared the formulae does not think it likely, as the crop has such a short period of growth. However, to avoid this it may be well to reduce the nitrate of soda by one half and substitute 500 or 600 pounds of fish scrap, which is more slowly available.

The land intended to be planted in tobacco should be plowed as soon as possible, so as to get it into a condition to be worked frequently before the time for planting arrives. It is most essential for the success of this crop that the land should be finely and deeply prepared, as tobacco is a fine fibrous-rooted plant, which has not the power to forage for plant food in rough, cloddy land. It is also essential that the soil be well filled with vegetable matter, therefore, a pea or clover fallow is an ideal piece of land on which to plant. The requirements of the crop in the way of fertilizer are exacting if the best yield and quality is to be made. Neglect of this requirement is the cause of the small and unprofitable crops so largely grown, and the wasted appearance of the land so common in the tobacco sections. The experiments made at Appomattox in growing the dark type forcibly illustrate this. We have not yet received the reports of the 1908 crop, but the reports on the 1906 and 1907 crops are before us. The results in 1907 show that on one plot of land planted without any fertilizer, the yield was 810 pounds per acre, which sold for \$59.19. Another acre plot was fertilized with 800 pounds of the regular 3-8-3 mixture. The yield of this plot was 1,070 pounds of tobacco, which sold for \$82.18. Another acre was fertilized with nitrate of soda alone at the rate of 500 pounds to the acre. The yield of this plot was 1,280 pounds of tobacco, which sold for \$93.20. Another acre was fertilized with a home-made mixture, specially prepared to meet the needs of the crop. This mixture was made up of ground fish scrap, 1,000 pounds; nitrate of soda, 150 pounds;

acid phosphate, 200 pounds; bone meal, 100 pounds, and sulphate of potash, 200 pounds. This mixture cost \$32.00. The yield of tobacco was 1,650 pounds which sold for \$154.37. A word to the wise is sufficient. Don't use the old 3-8-3 mixture, but make up the special formula, and get a crop worth making. Another great advantage in doing this will be the getting of profitable crops following the tobacco, and the initiation of a rotation system which will keep the land in shape to continue to make good crops. The plots to which the foregoing fertilizers were applied at Appomattox were put into wheat after the tobacco. The plot to which the 3-8-3 goods were applied made twelve bushels of wheat. The plot on which the heavy fertilizer application was made, made twenty-nine bushels of wheat. Red clover followed the wheat on part of this land, and made nearly three tons of hay per acre, and a red top, timothy and clover mixture was seeded on the other part, and made nearly five tons of hay per acre. This part had a ton of lime applied before sowing the grass seed, and nitrate of soda at the rate of 300 pounds per acre was applied in the spring. Corn is to follow on the land with peas and crimson clover, seeded in the corn, and then to come back into tobacco again. We strongly urge the adoption of this system of fertilization and rotation throughout the sections in which the dark type of tobacco is grown.

Last year another series of experiments was begun in the Bright tobacco section at Chatham, Va. We have just received from Mr. Mathewson a short note of the results attained. The field used was suitable for bright tobacco, but was perhaps a little below the average soil in fertility. The yield on the unfertilized plots was 300 pounds per acre, valued in one case at \$21.30, and in another case at \$22.74. The plot which received 500 pounds to the acre of 3-8-3 fertilizer yielded 550 pounds of tobacco, valued at \$51.17; the plot to which 800 pounds of seven and a half per cent. cotton-seed meal, 600 pounds of sixteen per cent. acid phosphate, and 200 pounds of fifty per cent. sulphate of potash was applied yielded 1,180 pounds of tobacco valued at \$135.41. The cost of the fertilizer used was \$21.20. No fancy prices were obtained for any of the tobacco, but the average price was best where the best fertilizer was used. It was quite clearly brought out by the experiments that both phosphoric acid and potash had a material effect in securing a brighter cure. A plot fertilized with nitrogen only gave a materially darker color and poorer price than did one to which phosphoric acid and potash was added to the nitrogen in considerable quantity. A plot to which 800 pounds of cotton-seed meal only was applied yielded 740 pounds of tobacco, valued at \$59.08. With the addition of 600 pounds of acid phosphate and 200 pounds of sulphate of potash the yield became 1,180 pounds, valued at \$135.41. Acid phosphate alone, 700 pounds to the acre, produced but 460 pounds of tobacco, valued at \$34.62, and 200 pounds of sulphate of potash gave a yield of 500 pounds of tobacco valued at \$39.20, as compared with 300 pounds per acre on the plot mentioned above. Another striking point brought out in these experiments was the fact that after reaching a certain point further applications of nitrogen, particularly if not balanced up by increased quantities of phosphoric acid and potash

had a tendency to materially darken the tobacco, and thus affect the quality and price adversely. On a field naturally richer in vegetable matter, and thus containing more nitrogen, it is quite probable that even 800 pounds of cotton-seed meal might furnish enough nitrogen to adversely affect the quality and color of the tobacco. Mr. Matthewson thinks that in recommending a fertilizer for general use under unknown and varying conditions, it would be well to cut down the cotton-seed meal to 500 pounds instead of 800 pounds in the mixed formulæ above mentioned.

The experiment made in Orange county, Virginia, in growing Burley tobacco last year, has aroused considerable interest in this type of tobacco, and we have several inquiries as to the advisability of trying Burley in the dark tobacco sections this year. We think this should not be done except experimentally. Burley is a type of tobacco which has hitherto been only successfully grown on the limestone soils of Kentucky and adjoining States and appears specially adapted only to those soils. It is true that the tobacco grown in Orange county made a good crop and sold for a high price, but we think this price is largely to be explained by the fact that Kentucky made only a very short crop last year owing to the "Night Rider Scare." If Kentucky had made a normal crop it is doubtful whether the Orange county crop could have been sold for anything like the price obtained. It is, in our opinion, more than doubtful whether this Burley type can be grown as profitably on our dark tobacco lands as the dark tobacco to which these lands are specially adapted, and there are details of cultivation and curing which will have to be mastered by our growers before they can successfully compete with the Kentucky growers even if the difference in the type can be overcome. Burley is topped much higher than the dark tobacco; in fact, the plants are allowed to button, and then the flower bud is pinched out, thus leaving sixteen or eighteen leaves to a plant when well grown. The crop is air-cured, and would require some alteration in the ordinary dark tobacco curing barns to meet this requirement, and there are other details in handling the crop during the curing which differ from the methods of handling the dark types. There is no doubt but that we can grow Burley on our limestone lands. Wherever blue grass grows indigenously Burley tobacco can be grown, but whether it will be policy to utilize these lands for this purpose is questionable, especially if the Kentucky growers are going to plant a normal crop, which seems likely; and we doubt much whether it will be profitable for our dark tobacco growers to change to Burley on their lands on the chance of succeeding with it. Try it experimentally and master the details of growing and curing, and then decide as to the future. The Kentucky dark tobacco growers have tried this experiment of growing Burley on their lands, and did not find it profitable, when both types were selling at normal prices. For the benefit of those who may experiment with the Burley type, we will endeavor to give further information as to the planting, handling and curing of the crop in a later issue.

into the ground as soon as the land can be got into good order. In our February issue we wrote fully on this subject, and refer our readers to what we then said. If the crop cannot be sown before the middle of the month—except in the mountain sections of the West of this State, and the adjoining ones, where it may be sown up to the end of the month—it is not usually worth while to sow oats in the South as the hot weather sets in too early for it to make a profitable crop. Better then reserve the land to be planted in a forage crop of cow peas or soy beans, or sorghum, after the corn has been planted.

Artichokes should be planted this month for a winter crop for the hogs to root out. The crop should be planted in rows like corn, but only about three feet apart between the rows, and the sets dropped about one foot or eighteen inches apart in the rows. The crop is grown from sets which, like Irish potatoes, may be cut, leaving two or three eyes in each piece. About six or eight bushels of sets will plant an acre. The yield in good land will frequently run up to 300 or 400 bushels, and twice this quantity has been grown. They make an excellent hog feed, and as the hogs root them out for themselves, are not much trouble. They may be plowed out if desired, and be stored like Irish potatoes in kilns or pies, covered with soil. If the land is not in good heart, an application of 200 or 300 pounds of acid phosphate and fifty pounds of muriate of potash per acre will help them.

Dwarf Essex Rape for a grazing crop for hogs and sheep should be sown this month. This will make the earliest grazing to follow crimson clover. The land should be prepared finely, as the seed is small. The crop may be sown either broadcast or in drills wide enough apart to permit of cultivation. It makes a heavier crop grown in drills, and sown thinly in the drills, so that the plants may stand eight or ten inches apart. Two or three pounds of seed per acre will be sufficient, if sown in drills, and four or five pounds, if sown broadcast. Acid phosphate at the rate of 250 pounds to the acre, and muriate of potash at the rate of fifty pounds to the acre will ensure a heavier crop.

Clover and grass seed not sown the fall, which is the proper time in the South, should be sown as soon as the land is in a fit condition for seeding. In the February issue we wrote fully on this subject, and refer our readers to what we then said. Don't neglect to harrow the wheat land before sowing the clover and grass seeds on it. This will help the wheat and ensure a better catch of the clover and grass. When the clover and grass is to be sown on land not already sown in a grain crop do not sow any grain with the grass seeds. Make the land fine and rich with manure and bone meal, and cover the seed with a light harrow and roll. Sow at least two bushels of grass seed per acre, and ten or fifteen pounds of mixed red clover and alsike, and you should be able to cut a nice hay crop in the early fall.

The oat and oats and Canada pea crop should be got

Tobacco plant beds not already sown should be seeded

at once. Select a warm sheltered situation, and make the bed rich and cover with plant bed muslin as sown.

Meadows intended to be cut for hay should have all trash raked off them at once, and if there are rocks on them likely to injure the machine when mowing, they should be picked off, and then the land should be rolled. If the grass is not growing as freely as could be desired, or if it is desired to make a heavy crop, a top dressing of from 150 to 200 pounds of nitrate of soda per acre should be applied. Put this on when the grass is dry, and after it has commenced to grow freely.

SOME NOTES ON FEBRUARY PLANTER.

Editor Southern Planter:

Mr. Franklin's letter on plowing reminds me to ask, why turn under a heavy green growth of cowpeas at all? There is serious danger, no matter how the plowing is done, that the souring of the soil will work serious damage. Then too, while green the crop has not finished its work of getting nitrogen for us and we should not cut it short. But, above all, such a crop has a feeding value that we cannot afford to bury in the soil. Two tons per acre are easily made of cow pea hay, we made last summer five tons of hay per acre from two crops of peas in the sand hill country of North Carolina in two successive crops on the same field. This hay has a feeding value of at least ten dollars per ton, and if we had buried it there would have been fifty dollars worth of good feed put in an acre of land. But by saving and returning the manure we can save fully eighty per cent. of the manurial value of the crop and have forty dollars worth of manure after getting its feeding value.

I would never in the South turn under even a heavy growth of rag weeds in hot weather unless I immediately followed with a coat of lime. Hence the matter of a plow is much more simple. A good Syracuse plow with three mules is all sufficient, and the furrows should be edged for if a growth even of dead vegetation is turned under flat it is apt to cut off the rise of capillary moisture, and the crop may suffer from drought. The turning under of a heavy green growth never bothered me for I would never do it. Even in turning under crimson clover for corn I would wait till it is dead, and then have plenty of time to make the crop.

From Planting to Farming.

Mr. French's article will bear study. Selling raw materials never made a people permanently prosperous. Changing our products into a form of greater value by feeding is the foundation stone of success in real farming. The Dutchman in Nebraska when asked what the price of corn was there, said that it was twenty-five cents at the elevator, but he never sold any to the elevator but fed it to the hogs and it walked off at fifty cents a pound. And when I suggested to him that Chicago packer's meat was all I saw in his neighboring town he immediately said that he would cure some meat and get seventy-five cents a bushel for his corn. Stock feeding is at the very foundation of good farming.

That New York Farmer.

Alva Agee recently said in effect that the notion that potatoes specially need potash is an old superstition, and

that it has been proved otherwise. The Station men have to a large extent decided that on soils rich in potash there is none needed. But the fact is that on red clay uplands of the South, where analysis shows the soil to be very rich in potash, it is also insoluble. We can get the use of it more rapidly than naturally by the use of lime or plaster, and it is a question for the grower as to whether it is cheaper to get it in this way than to buy potash salts. The Indiana Station found that on a clay soil abounding in potash it was profitable to apply potash salts. The Stations have generally gotten the idea of the needlessness of potash from experiments where potash alone is applied. Without a due percentage of phosphoric acid the potash will not have its due effect, because these two work in unison, one to promote the use of the carbon taken by the leaves from the air into the formation of starch, and the other in the transmission of the starch for building material and the storage of starch in grain and tubers. Mr. Hart's experience shows plainly that the need of potash for potatoes is not an old superstition-

Acid Phosphate and Lime.

Lime freshly applied to the soil may revert phosphoric acid, but it will still be available and the phosphoric acid will be taken up by the crop. Then sulphuric acid may be set free and unite with the lime and make lime sulphate or plaster, which does not sweeten the soil, and acidity may be the result. I do not think Mr. Clary need be scared.

That we are using too large a percentage of phosphoric acid in fertilizers I believe is true. The manufacturers find it the cheapest plant food they have and they use it in large percentages in the making of low-grade fertilizers to meet the demand for low-priced goods. I think that if farmers would pay more attention to the accumulation of humus in the soil they could use the pulverized phosphate rock or floats to better advantage than acid phosphate.

Irish Potato Fertilizers.

Mr. Hicks gives a number of formulas with nitrogen carried only in nitrate of soda. The amount of nitrate he uses would be largely wasted before the plants could possibly use it, and a far less amount would give them a send off and the organic material would be better. Then why use a "filler?" The manufacturers use a filler so that they can sell a ton for a low price while all that is of value in it can be had in 1,250 pounds of the 2-8-2 goods. But when one has mixed the plant food carriers, why not let it go at that and not be anxious to make the ton. The best formula for Irish potatoes I know of, and one that has been used with great success, is acid phosphate, 900 pounds; nitrate of soda, 100 pounds; cotton seed meal, 600 pounds, and muriate of potash, 400 pounds, to make a ton and not a bit of filler except what naturally belongs in the carriers of the plant foods.

W. F. MASSEY.

THE APPLICATION OF COMMERCIAL FERTILIZERS.

Editor Southern Planter:

I always read with a great deal of interest Mr. Hick's explanations in regard to the application of commercial

fertilizers. Anything which throws light on this question will certainly be welcomed by every farmer.

The greatest trouble I have encountered in determining the most profitable amount is the many factors which influence the effect of fertilizers and of whose action in increasing or decreasing the effect we do not have the slightest conception. We have not only to deal with different kinds of soil and their present state of cultivation, but also with the absorptive power of the soil, the amount of iron and lime it contains, the activity of the soil, the residual effect of the preceding crop, the needs of crops at certain periods of growth, the effect of fertilizers on the quality of the crops, if the farm is extensively or intensively managed, bacterial activity, and probably other factors little understood at the present time. Though the form in which fertilizers are most profitably applied is pretty well known at the present time, the same cannot be said of the most economical quantities. Let us take for instance phosphoric acid. As soon as it comes in contact with the soil it undergoes changes by forming more or less difficultly soluble compounds with the soil constituents. It does, however, not come to a rest in these forms, it is alternately liberated and precipitated. Carbonic and humic acids act as a solvent, larva and bacteria feed on it, and in their decomposing bodies it is placed again at the disposal of the plants in a more available form. A previous application of lime may prevent the phosphoric acid from becoming difficultly soluble in a soil rich in iron but poor in lime, and may decrease its solubility on a limestone soil. The better the tilth, the better the aeration; the richer the soil is in organic matter, in form of a mild black humus, the greater is the bacterial activity and the greater the effect of the applied as well as the soil phosphoric acid.

It is unfortunate that we have so far no method which enables us to determine the available amount of phosphoric acid in the soil. Though it has been found that a soil which contains in 100 pounds only half an ounce of phosphoric acid, does not produce crops, the conclusion cannot be drawn that soils low in phosphoric acid containing from one and a half to two ounces in 100 pounds are in need of phosphoric acid. It has often been noticed that phosphatic fertilizers have no effect on these soils, but have given marked results on soils containing twice as much phosphoric acid. A great deal depends upon the solubility of the phosphoric acid.

With regard to this uncertainty in judging the most profitable amount, it has become customary to apply liberal quantities as long as profitable returns are obtained from it in the presence of liberal quantities of nitrogen and potash, and when this point is reached to replace the amount removed in the crops.

In applying potash we have to be a little more careful. If from the applied phosphoric acid ten, fifteen or twenty per cent. are assimilated the first year, from forty to sixty per cent. are taken up from the applied potash. It would be a mistake to treat a soil poor in potash as a soil poor in phosphoric acid. The needs of beets, cabbage, potatoes and barley for potash where maximum crops are wanted is so great that even soils rich in potash can hardly supply it. According to Roemer and Wimmer and also Deleano, we have not only to reckon with

the quantities found in the crops, but with additional quantities which are taken up by the plants and later excreted. If this additional quantity takes an active part in the assimilation of carbon dioxide from the air, if it serves as a kind of vehicle for transporting the starch formed in the leaves to all parts of the plants and when it has reached the end of the route is discharged, or if it participates in forming different parts of the plants, for instance, the woody fibre, and when this is accomplished is excreted, is not known at the present time. It is known, however, that potash is for the formation of starch of greater importance than phosphoric acid and nitrogen. If these are not present in sufficient quantities the starch content is only slightly diminished, but if potash is wanting the formation of starch is diminished in proportion.

Though we are just as uncertain in regard to the most economical quantities of potash as we are in regard to those of phosphoric acid, we will make no mistake if we apply liberal quantities to fodder crops, fodder beets, clover and the meadows. Even if these crops take up more potash than they usually need, which plants sometimes do, the surplus is not lost, but returned in the manure to the soil.

When it pays to stock a soil with phosphoric acid and to apply potash beyond the quantities found in the crops, we are perfectly at sea in regard to nitrogen. The supply of saltpetre nitrogen from decomposing humus, manure, green manure, guano, bone meal, etc., is not absorbed by the soil, and if it is not assimilated by the crops at the rate at which it is liberated is subject to losses. The supply depends upon the rate of decomposition of the organic matter, upon nitrification, and the loss on denitrification and leaching. The soil is also in constant exchange of nitrogen with the air, but we do not have the slightest idea in regard to the exchanged quantities. "Bonneman," Germany, is, from the results of his investigations, inclined to believe that the first step in the enrichment of the soil in nitrogen is a chemical process, the nitrogen being absorbed by the iron contained in the soil and prepared for the assimilation by bacteria.

Nitrogen is of the greatest importance for the development of the growing plant, for the formation of "protoplasm," the building material of plants. This does not only refer to cereal and root crops, but also leguminous crops, which depend in the first stages of their growth just as much upon the soil nitrogen as the other crops.

How much nitrogen we shall apply is difficult to say. Wagner and Maercker, who undertook numerous experiments to solve this question, give the following figures: On a well tilled soil in the presence of sufficient potash and phosphoric acid, 100 pounds of nitrate of soda will approximately increase the yield per acre of: Oats, 12 bushels; rye, 5 to 6 bushels; barley, 8 bushels; wheat, 5 bushels; potatoes, 2,500 to 3,600 pounds; sugar beets, 2,500 to 4,000 pounds; fodder beets, 4,000 to 5,000 pounds.

Nitrate of soda should always be bought with a guarantee that it does not contain more than one per cent. of perchlorate, a substance poisonous to plants.

From the foregoing, it will be seen that our knowledge in regard to the most economical quantities is, so to speak, still in its infancy. This uncertainty has induced

many farmers not to base their calculation on the quantities removed in the crops, but on average figures obtained from numerous investigations. The following quantities may be applied with good effect: For cereals, per acre, nitrogen, light application, 16 pounds; medium application, 32 pounds; heavy application, 64 pounds. Phosphoric acid—Light application, 30 pounds; medium application, 60 pounds; heavy application, 90 pounds. Potash—Light application, 40 pounds; medium application, 60 pounds; heavy application, 80 pounds.

Barley and rye endure less nitrogen than oats and wheat; varieties with stiff blades more than those with weak blades; drilled grain more than broadcast grain. To barley grown for brewing purposes nitrogen has to be applied with care, a good application is only safe in the presence of strong applications of potash and phosphoric acid. Barley requires more potash than oats. Dry, light soils require less phosphoric acid, but heavy applications of potash and nitrogen; moist and heavy soils more phosphoric acid. The more organic matter a soil contains and the more manure or green manure is applied, the more phosphoric acid and the less nitrogen has to be given preceding crop. If nitrogen increasing crops, such as clover, alfalfa, vetches, peas, beans, etc., have been grown, potash and phosphoric acid should be liberally applied; if, however, nitrogen decreasing crops, such as potatoes, beets and cereals, have preceded, a strong application of nitrogen is necessary, with light applications of potash and phosphoric acid. If potatoes follow cereals, a strong application of potash should be given to the cereals, which is preferable to a direct application to the potatoes. If clover and alfalfa follow cereals, potash and phosphoric acid should be liberally applied.

Clover and Legumes.

These need only small quantities of nitrogen for their first development. If the soil should be poor in nitrogen, seventy to eighty pounds of nitrate of soda per acre may be profitably applied. Potash and phosphoric acid can be liberally given, the latter up to 100 pounds per acre.

Potatoes and Beets.

Notwithstanding that potatoes and beets possess to a high degree the ability of making good use of the soil potash, their need of potash is so great that where maximum crops have to be grown the amount contained in the manure is insufficient.

Potatoes Per Acre.

Nitrogen.—Light application, 21 pounds; medium application, 28 pounds; heavy application, 42 pounds.

Phosphoric Acid.—Light application, 23 pounds; medium application, 34 pounds; heavy application, 46 pounds.

Potash.—Light application, 40 pounds; medium application, 60 pounds; heavy application, 80 pounds.

Sugar Beets.

Nitrogen.—Light application, 21 pounds; medium application, 42 pounds; heavy application, 70 pounds.

Phosphoric Acid.—Light application 34 pounds; medium application, 46 pounds; heavy application, 70 pounds.

Potash.—Light application, 40 pounds; medium application, 80 pounds; heavy application, 120 pounds.

Fodder Beets.

Nitrogen.—Light application, 28 pounds; medium application, 56 pounds; heavy application, 84 pounds.

Phosphoric Acid.—Light application, 34 pounds; medium application, 68 pounds; heavy application 90 pounds.

Potash.—Light application, 80 pounds; medium application, 120 pounds; heavy application, 160 pounds.

Tobacco.

It is well known that tobacco does not burn if it is not rich in potash. Analyses of the leaves have shown that the lowest potash content found in the dry leaves was one-half per cent., and the highest seven and a half per cent. A large potash content is, however, only of benefit if it is accompanied by a good structure of the leaves, and is comparatively free of chlorin. Leaves which contain three per cent. chlorin do not burn, no matter how much potash they contain (Wagner). We should therefore plant tobacco on soils rich in potash and apply liberal quantities of potash, but should avoid liquid manure and fertilizers which contain chlorin. Green manure deserves the preference over barn yard manure. Manure and fertilizers rich in nitrogen should be applied with care, because the nitrogen may injure the free burning of the leaves and may give them a bad odor. Two hundred pounds of potash and sixty pounds of phosphoric acid per acre may not be too much.

Cotton.

McBryde, South Carolina Experiment Station, carefully studied in all their bearing the results of tests of fertilizers, and concluded that these warranted the following general conclusions:

1. Cotton requires nitrogen, phosphoric acid and potash.
2. Of the three, phosphoric acid is relatively the most important and controls the action of the other two. It can be used alone with more advantage to the crop, but much more effectively in connection with potash and nitrogen.
3. Nitrogen is relatively more important than potash. It can only be advantageously used in combination with phosphoric acid, or phosphoric acid and potash.
4. Potash, like nitrogen, is of little value to cotton when applied separately, it must be combined with the other constituents.
5. With proper allowance for the cost as well as the effect of each application, the requirements may be more exactly given as follows: one nitrogen, two and a quarter phosphoric acid, and three-quarters potash; and the amount called for by a crop yielding 300 pounds of lint per acre is nitrogen 20 pounds, phosphoric acid 50 pounds, and potash 15 pounds.

In which form the given quantities have to be applied, if in the form of manure, green manure, organic or mineral fertilizers, has to be decided in each case. Speaking in a general way, we can say that the cereal and root crops give the highest yield from decomposing organic matter supplemented, if necessary, with mineral fertilizers, the leguminous crops from mineral fertilizers, with a small quantity of well rotted nitrogenous manure for a good send-off. Of the greatest importance is also the form in which the fertilizers are applied. On light, warm and active soils, the slow decomposing fertilizers are preferable; on cold, wet loam and clay soils the super-phosphates and high-grade potash salts deserve the preference.

Washington, D. C.

H. WINKELMAN.

NOTES ABOUT SOIL ACIDITY.

Editor Southern Planter:

There is quite a revival of interest in liming among progressive farmers North of us. It has been found that clover will not continue to thrive on some, in fact, on many soils, even when they are lavishly fertilized with acid phosphate and potash salts. And as clover is the very foundation and mainstay of their system of farming, it is easy to understand what a loss it is. Indeed, many seem to be of the opinion that the excessive use of these fertilizers is positively harmful to the clover. Though the reason assigned for it in the case of acid phosphate is not sound; namely, that it increases the acidity of the soil, but in the case of potash salts this is certainly a valid objection, because the great amount of chlorine they contain tends to rob the soil of its lime. For by uniting with chlorine, lime forms an exceedingly soluble compound, which the first rain leaches out of the soil. Hence, a soil which might be only slightly acid or even neutral becomes decidedly acid so that clover will not continue to make heavy and healthy crops on it.

The litmus test for acidity is very sensitive, but it does not tell the degree. Two soils may show acidity yet may vary widely enough to have an important effect on the crops grown on them. There is a big difference between the degree of acidity in a clay slate or a silicious sandy soil and in a black granite or a zoisite schist soil. Both of the latter contain considerable lime, but not enough to save them in a litmus test. But the native wild plants tell the difference. Again, a limestone gravel soil may show no more alkaline by the litmus test than a glacial deposit of boulder clay in the low, flat places in the same field, although the former is, say, ten degrees above acidity while the latter is only one. It would take more lime to neutralize the acidity of the sandy soils of the coastal plain or of the soils derived from granitic rock than the soils composed of decomposed hornblende rocks. And one might say that the former was ten degrees below acidity while the latter was only one.

Plants may be classed according to their preferences in respect to acid or alkaline soils. Not only that, but in regard to the amount of acid or alkali they demand. Alfalfa, for instance, might be called a super-alkaline plant, because, as Mr. Wing well says, it requires lime in excess of what is good for any other plant. Out in the semi-arid West, where alkali is a pest, as is well known, alfalfa will stand more of it than any crop they grow. Red clover will do with much less lime than alfalfa and may be styled a sub-alkaline plant. It is worthy of note that clover will not do on purely felspathic soils notwithstanding they are so rich in potash, yet it flourishes in soils derived from hornblende rocks and, in fact, on any of the soils made from the iron-lime-magnesia group of minerals, such as epidote, so common in these Appalachians, yet they were deficient in potash, showing plainly that clover can find potash easily even where there is only a moderate supply of it, and that, too, notwithstanding potash is such an abundant constituent of clover ashes. But lime is the controlling element, not merely as plant food, but it would seem for the purpose of correcting soil acidity. Cowpeas are sensitive to any excess of lime. They

did not thrive on the sites of the old Indian shell camps, along the salt water rivers in Tidewater Virginia, but clover was at home there. Though peas must have lime and wont do their best on the excessively acid soils along Tidewater, Mr. Edmund Ruffin said so.

Among the legumes, lupins demand a decidedly acid soil. Some whole "orders" of plants, such as the "Heath Family," for instance, refuse to grow where there is any considerable amount of lime in the soil. The cranberry is a case in point and is diametrically the opposite of alfalfa in every requirement of growth.

When the Almighty made the world with such a variety of soils and climates, He made plants adapted to them all. Our Southern native flora is unrivaled. It is the noblest, richest and most varied in the Temperate Zones. And, pray, what better criterion is there of the South's capabilities in raising food and clothing for civilized man? Nor is our best flora confined to calcareous soils. Slightly or wholly acid soils are arrayed like Solomon and crowned with a glorious vegetation, so we need not strain ourselves trying to make acid soils alkaline. There are valuable plants enough that suit our acid soils to perfection and our best policy is to make the best of what is in reach and be thankful.

A Dutch farmer who lived near me in Gloucester county, Virginia, remarked to me that while he was raised in Lancaster county, Pennsylvania on high-priced limestone soil, they had to manure there just as he did in Virginia and the latter gave fully as good returns for the work.

When I was a boy, in the early forties, I saw at the Bishop's palace, near our cathedral town, Killaloe, Ireland, what was considered the finest collection of ornamental shrubs and plants of their class in the United Kingdom. The story of its origin was this: Our Bishop was an Englishman, an old bachelor, and a most enthusiastic florist and botanist, and when he first came there he was told by his neighbors that all attempts at growing flowers failed miserably, and Lady Massy, who was a leader and a wit, told him to send carts down to her place in the rich limestone valley and bring soil for the flowers he proposed growing, for "Clarisfort," as the Bishop's place was called, was situated on top of a high, bleak hill and the soil was miserably poor, cold and sour as vinegar, being derived from clay slate of the worst kind. Instead of trying to grow the flowers and shrubs that flourished in the places of the country gentlemen in the valleys, he took an entirely different course. He ransacked Europe for shrubs and flowers to suit his soil. He had Rhododendrons, Kalmia's, Azalias, Fuchias, etc., galore and of exquisite beauty. There was no other garden in all the countryside at all like it. And bye and bye Lady Massy heard of it, and when she expressed her unbounded admiration to Bishop Tonson and wished she had such flowers, he remembered what she said before, and told her she must send carts up to Clarisfort for soil to grow such plants in."

JOSHUA FRANKLIN.

Moseley Co., Ala.

MARLING LAND.

Editor Southern Planter:

Referring to Mr. Whittier's question in the February is-

sue as to the use of marl, I will say that I do not presume to pit my judgment against yours, but please allow me to give the result of the use of marl on a farm near me. My brother, who is now dead, owned this farm and he was a firm believer in the liberal use of marl. This land was fairly good and mostly light; it had been marled many years ago. My brother remarked, using heavy applications, and there not being much humus in the soil the land was marl burnt and now produces lightly, the only remedy being to get vegetable matter into the soil so as to counteract the excessive lime.

I do not depend on my own observation entirely, but on the experience of older farmers, and my advice is that if the land is heavy or medium and has never been marled or limed that about 200 to 250 bushels of marl would be right per acre; if land is light, 100 to 150 bushels per acre; if rich, more may be used. If the land is to be remarled, 100 to 150 and 75 to 100 bushels per acre, respectively, depending on the nature and quality of land, and it should last twenty or thirty years unless green fallows are often used.

I will call your attention to an error in my article in the February issue. It reads: "This estimate was for eleven acres which had not been manured." Should read: "for eleven acres which had been manured."

Prince George Co., Va.

A. R. CLARY.

The purpose of marling is to correct acidity and to make the land productive of the lime-loving legumes. These give the means of restoring humus to the soil, which is what all Southern land mostly needs. It is difficult to overdo land with lime for these crops. We have put five tons of freshly burnt lime to the acre before growing clover, and obtained good results. The cereals, however, are not benefited by excessive liming or marling. They only need it in moderate quantities, one ton to the acre is sufficient.—Ed.

PLOWING.

Editor Southern Planter:

I have been much interested in the discussion of plows and plowing in recent numbers of *The Planter*. From personal experience and observation of plows and plowing in varied conditions I have come to the conclusion that there are as many opinions as to what plowing is as there are plows and plowmen.

Good farmers differ about the depth a plow should run. Some would go a certain depth under all conditions of soil and subsoil, others would turn up just a bit of subsoil each year. I know of no objection to deep plowing in sand or gravel subsoil, but in clays if too much is turned up at a time there is danger of its running during heavy rains and forming a detrimental crust and thus covering small grains and young plants. Where there is scant humus a very little clay will tend to harden the soil, lock up the plant food and allow the moisture to escape very rapidly.

Turning a flat furrow, or turning only partly or setting the furrow on edge is another point for discussion, which is best left to the individual liking of the farmer. But, on the subject of turning everything under, we come nearer together than on any other point, as most of us think that is about the best place for weeds, legumes and trash.

We have had good success with a heavy plow turning a furrow six to eight inches deep and twelve to fourteen inches wide, under very unfavorable conditions. When wild buckwheat or other viney growth, peas, etc. are to be turned under, we use a spike tooth harrow ahead of the plows going in the same direction (and let me say in passing that this is about the only thing a spike tooth harrow is good for). We use no jointer in bad fields. Our lands are too stony for a rolling coulter and we have yet to find a "jointer" that will not clog. We use a chain to drag under the weeds, having it so adjusted that it holds them in the furrow till the plow covers them.

We use three good big horses abreast and the day is a short one indeed when we do not turn over in good shape two acres per team.

The man who taught me to plow always contended that a field properly plowed was at the same time half harrowed. I have learned, however, that good plowing may be much injured by injudicious harrowing. A field of peas, clover, weeds or corn stalks may be plowed ever so well, but a deep-set harrow drawn the wrong way will undo all the care taken in plowing.

It is well to have tools for all conditions, but for most of us that is impossible, so the next best thing to do is to buy those that nearest fit all conditions and, above all, keep them in good condition.

Plowing with a rusty plow is like cutting wood with a dull axe, and harrowing with a poor harrow like shaving with a dull razor—all very liable to cause lapses in piety.

Should there be anything in what I have written that you think would be of value to your readers, use it.

I enjoy reading *The Planter* and want to make one criticism of the farming advocated by some of your contributors. It is this: I think they are working on the wrong job. Most writers agree that Virginia lands are at present not as productive as they should be. Then, why not feed the land instead of just crop by crop, fearing that a balance might be left over from one crop for the next? I believe that the farmer who feeds his land is the farmer who will be fed by his land together with his herds, his family and his bank account.

Another thing, urge your readers to keep accounts. See where the money comes from and where it goes, too.

No business but farming would long survive the unbusinesslike methods of the average farmer.

Northampton Co., Pa.

J. FRED. ENGLER.

RESTORING HUMUS TO THE SOIL.

Editor Southern Planter:

Constantly growing corn will destroy the humus in the soil, and the best and quickest way to restore this fertility is by growing some leguminous crop.

The cowpea is probably the most valuable crop for this purpose, and the vines, when properly cured, make a most nutritious food. It has been my purpose for sometime to write for publication what I have learned about this crop, which has not been extensively grown in Northern Virginia until the last few years, thinking it may be of benefit to some although it is called my "hobby." However this may be, I wish to let others know what great advantages may accrue from growing this crop. It is almost impossible to get a stand of clover, and since this is the

case, some other leguminous plant should be grown. Peas are undoubtedly the cheapest mode of restoring the fertility of the soil.

The ground intended for this crop should be plowed the last of May or early in June, making a nice and firm seed bed. It should also be made smooth by rolling or otherwise, as this much facilitates the saving of the crop. As peas rot very easily, it is bad policy to sow before the ground is thoroughly warm, so that they will sprout and come up quickly. I have obtained more satisfactory yields both in peas and forage by sowing three pecks per acre, and this is also an item to be looked after, as the seed has ruled high in price for some years. By sowing a larger quantity the microbic nodules are not generally so numerous. The wheat drill, set to sow one and one-half bushels per acre, stopping alternate tubes, sows the proper quantity per acre. Be careful not to sow too deep, as this is easily done in freshly plowed land.

For a vigorous growth of vines, use two hundred pounds per acre of 14 per cent. acid phosphate, using all the tubes, then only one-half of the fertilizer is sown directly on the peas. They seem to do better sown in rows and a uniform depth is more easily obtained. Drill back and forth instead of around the land, and, by close attention, the rows, when sown, are sixteen inches apart.

During a favorable season when thus sown, the peas should grow rapidly and smother all other growth. Should a few large weeds appear they can be pulled out by hand. Any of the black or clay varieties do well, but it seems that the black has the preference, when a large growth of vines is desired.

The weather being favorable, start the mower when the first pods begin to yellow after the dew has dried.

When partially cured, rake in windrows which turn over in a day or two, and after remaining a few hours, put in small heaps of two or three forkfuls. This mode saves all the leaves, which is a valuable part of the forage.

No definite time can be assigned as to the length for remaining in the field, but be sure the vines are cured before hauling to the barn or rick. They keep perfectly stacked, provided some straw or coarse hay is used to shed the water. Never haul when wet from dew or rain, far preferable to leave in the field, even if the outside is blackened.

In a few days after the vines are cut, as their supply of nitrogen to the roots from the air no longer exists, the nitrate sacks or nodules at the roots rot and diffuse themselves through the soil.

Much better results with the following crop can be obtained by leaving the pea roots in the soil, only breaking the surface several inches with a disc or cutaway harrow, making a good seed bed for wheat or grass, which should be sown as speedily as possible so as to prevent the escape of the nitrates.

The former mode of plowing the land when preparing for the following crop exposed the roots to the air and sunlight and thus the most valuable nitrogen was evaporated and lost.

Pea vines, when properly cured, make valuable feed with very little waste and, by analysis, almost equal wheat bran in feeding value.

An acre of peas will easily make one and one-half to

two tons of dry forage and, at a low estimate, is worth ten dollars per ton. I have seen calves wintered on pea vines grow rapidly and keep in splendid condition, no other feed of any kind being used. It makes milch cows give a good flow of milk; it is also valuable as a forage for horses and colts.

W. C. BENTON.
Loudoun Co., Va.

THE EARLY COTTON.

Editor Southern Planter:

Improved farm seed, improved machinery, pure-bred stock and improved methods of farming along the lines suggested by the editor and others who have contributed to his most valuable farm journal, *The Southern Planter*, have so stimulated interest in our Southern agriculture that sooner or later we may expect to see greater strides along this line than ever could have been accomplished otherwise.

All that is needed is for farmers to read and follow the advice of the *Southern Planter*. This I have been doing for the past five years, and am sure I have accomplished more in this time in improving my seed and my land than I could in a life time without it.

With an improved strain of early cotton, I have been growing two crops (a cotton crop and a legume crop) annually. I have long since discarded every crop that cannot be grown successfully with a leguminous crop or some other crop for the improvement of my land following it the same year, as my first consideration is improvement of the land.

One crop annually for a money crop, planting all the acreage possible in a late cotton of long growth and slow maturity in order to make the largest amount of cotton possible, has caused a wasted and depleted condition of the soil and many unsuccessful farmers. I have chosen to grow only the latest improved farm seeds in the full sense the words imply and at the same time improve my land to the highest state of fertility with the least expense possible. For this purpose I have selected and improved the earliest, most prolific and largest yield of lint for seed cotton and have produced a variety known as Sugar Loaf cotton, and also in like manner of selection have improved Coker's Prolific corn, which improved variety I have named Sugar Loaf Prolific. It makes two or three good-sized, perfect ears of the highest feed value and largest yield per acre. They have been improved so as to have distinct characteristics, and are both most valuable acquisitions in improved farm seed. The flowers of the Sugar Loaf cotton have red spots, which no other variety has, except those derived from it.

My individual crops are grown on sixty-six acres enclosed in stock wire and subdivided into three sections and all watered. One section is planted in annual clover and cotton, one in annual clover or vetch and corn, the other in rye, peanuts or peas and annual clover. Acid phosphate, potash and lime are the principal fertilizers used, the nitrogen being furnished by the leguminous crops. I keep as much stock as is possible to consume the forage crops and grazing up to the time of planting when the land is not wet. The manure is saved under shelter which affords comfortable and dry quarters for

my cows every night and in bad weather. I have dispensed with fertilizers so far as nitrogen is concerned and my crops have increased from a quarter to a half a bale of cotton per acre to one and half or two bales, and my corn crop from two to three barrels per acre to eight or ten within seven years. I expect to decrease the acreage of the money crop in proportion to the increase in the fertility of my land and the yield of the crops until my land is in such a high state of fertility that it will grow a still heavier feed crop and a cotton crop the same year, thus enabling me to keep more stock of the best breeds.

Suffice it to say that the sale of my products and seed this year will more than thribble the valuation of my farm seven years ago.

I. W. MITCHELL, Prop.,
Sugar Loaf Cotton Farm.

THE PLOW QUESTION.

Editor Southern Planter:

I have read with much interest the articles which have appeared in the recent issues of The Planter on the good plow question. I also would like to have a plow that would turn under crimson clover and cowpea vines, no matter how rank a growth successfully. My experience in trying to plow under pea vines last fall was not wholly successful. In the early part of June I drilled a field consisting of sixty acres to cowpeas (Clay variety) on land that in an average year will produce from fifty to sixty bushels of corn per acre and, as a result, when they matured, there was a very rank growth of vines. This field being intended for wheat, it was necessary to commence plowing before the vines had died or were dry from being killed by frost, so three good mules were hitched to a No. 40 Oliver Chilled plow with rolling coulter and chain to plow them under.

I agree with Mr. Carlton as to using a rolling coulter in preference to a jointer, but with a coulter I had plenty of trouble as the coulter would not cut the heavy vines. While I think it far more profitable to cut the peas for hay, yet when it is necessary to plow them under (as in my case) a plow that will do so and not choke and cause delay would be very acceptable. There have been articles dealing with the Oliver, Syracuse, Imperial and Chattanooga disc, but no one has yet said anything about or has tried Clarke's Cutaway Disc plow (ad. will be found in The Planter), which suggests itself to me as being the only plow that would do this work with little or no trouble. I do not see how it could choke, as its shape would make it a force feed.

If any of The Planter readers have used one of these plows, I would be very glad to know with what success they have done so.

ROBIN TAYLOR.

Chesterfield Co., Va.

WHAT CAN BE DONE WITH THIN LAND IN VIRGINIA.

Editor Southern Planter:

At this season of the year would it not be wise for those who contemplate planting corn and are desirous of increasing the yield of shelled corn per acre to adopt better methods than are generally practiced throughout Virginia? With exceptions, the land is turned in the spring, one or two harrowings given and then planted, two

or three plowing are given with either double shovels or double cultivators, and nature and the soil do the rest for a large or small yield. The average yield of corn in Virginia proves that something is wrong. After the crop is gathered the land is in poorer condition, and if not seeded to wheat, timothy and clover are left in a bare state until the following spring possibly to go into corn or oats. Now, is this treatment fair to the land and is it likely to bring money into the farmers' pocket if kept up any length of time? I think not.

Having purchased an old, worn-out piece of land that when last in corn only produced one barrel to the acre, and that not merchantable, and wishing to improve and restore its quality and at the same time pay for all that was expended, and a profit besides, I decided upon a certain plan of rotation, which so far has given the desired results. My rotation may not be the very best and no doubt some will find fault with the plan, so if any one has any better to offer I would gladly appreciate any suggestions. So far, this plan has given good results. In the fall this land was plowed eight inches deep and one ton of lump lime applied per acre, this was thoroughly mixed with the soil and the same reduced to a fine, mellow seed bed. This was no little work, as the soil was a stiff clay. Vetch and rye were then sown, using 300 pounds of fourteen per cent. acid phosphate per acre. There was a poor catch as the seeding was too late and was winter killed somewhat. During the winter a very light top-dressing of stable manure was applied. In the spring this crop was turned under and corn planted May 11th, using 300 pounds acid phosphate per acre. Boone County corn was purchased of Funk Brothers, Bloomington, Illinois, at the rate of \$5.00 per bushel. The preparation for the corn was the very best, as I believe in deep cultivation before planting corn and shallow afterwards. As soon as planting was over a slant-tooth harrow was put to work and continued until corn was too large. An excellent stand was secured, checked three feet eight inches and thinned to two stalks in the hill. After every shower as soon as land was in order fourteen-teeth harrow cultivators broke the crust and kept a fine dust mulch until the corn was four feet high, when New Era cowpeas were broadcasted at the rate of three-quarters of a bushel to the acre. Then crimson clover was sown and the crop laid by July 7th. This corn never seemed to suffer for want of moisture, while corn in the same vicinity was considerably twisted and wilted, showing the effects of a dry spell. A fine stand of peas and crimson clover was secured. The corn matured as early as any of my neighbors and was cut and cured in small shocks, and no damaged corn to speak of although many farmers were complaining of their corn spoiling. The yield of corn was fourteen barrels (70 bushels) to the acre. The peas were left to fall upon the land as a protection to the crimson clover during the winter and at this writing the clover bids fair to make a fine crop.

Now, as to the money made on this run down land, not counting the improvement to the soil: Expenditure per acre, \$26.00; 70 bushels corn per acre at 60 cents per bushel, \$42.00, leaving a net profit of \$16.00 per acre. As over 100 bushels of the corn has been sold for seed to this writing and probably 200 bushels in all will be

sold, this will change the net profit per acre considerably, as this seed was sold for \$1.50 per bushel. The clover will be either grazed off or cured for hay and the stubble be plowed under. In August the land will be seeded to timothy and clover to remain one year only, then the land will be planted to corn with peas and crimson clover sown in the corn. The following August the land will be sown in timothy and clover. All the manure that comes from feeding both grain and long feed will be returned to the land, except what seed corn is sold. By this method, in five years the land will be in fine condition to produce excellent crops, and at the same time have paid a handsome profit, whereas, on the old style of farming, as generally practiced, there is no profit, and the land is getting into a poorer condition each year.

Fauquier Co., Va.

ERGO.

NOTES AND COMMENTS ON THE FEBRUARY ISSUE.

Editor Southern Planter:

Your correspondent from Prince George county, Mr. A. R. Clary, has given us a graphic description of a very common experience with our "low ground" farmers when they try to grow corn with level cultivation. I have seen it tried so often, and so often fail, that I feel sorry now whenever I see the practice unconditionally recommended by our agricultural press.

That corn can be successfully grown in Virginia by the method I will of course admit. It is also true that in some dry and leaching soils a better yield is secured in this way, but at the same time it is true that on other soils that are retentive of moisture, or where the drainage is poor, such a system cannot be relied upon except when the weather conditions are particularly favorable. The general answer to this statement is for some one to say, "I once planted and cultivated a field in this way and made a satisfactory yield." Even so intelligent a man as Professor Massey once answered a criticism of mine in this way, and, I presume, thought his reply led to a conclusion of the discussion when, in reality, it only constituted a part of the evidence that is accumulating on both sides of this vexed question. The truth of the matter is that corn can be grown in most any sort of a way, and the yield will generally be governed more by the fertility of the soil than by the mode of cultivation, as witness the size of the crop grown by the "stunting" method, as described in a former issue of this Journal, but the only valuable evidence along this line is derived from the experience of those who have cultivated side by side in the same field, plots of equal size under different systems of culture. A number of years ago, when I first commenced to farm in Tidewater Virginia, I was much perplexed by the conflicting evidence offered me along this line. The agricultural writers were a unit on the side of level culture, and feeling ran so high that I believe they would have recommended it to the cane growers of Louisiana on their alluvial soils below the level of the Mississippi rather than to concede that there ever came a point where the acceleration of the elimination of soil moisture by evaporation would benefit the crop. On the other hand, the practical farmers who were saying little, but everlastingly "sawing wood."

all advised me to throw four furrows to my corn with a one horse plow.

To test this point and arrive at some conclusion based upon some reasonable accumulation of facts (which, after all, is all that any science is based on), I conducted the following experiment:

A field of four acres was carefully planted in corn taking care to have all the rows the same width and an even number of rows to constitute half an acre; as the field was in the form of a parallelogram, this was not at all difficult. This field was all planted with the same seed, the same day, or rather half-day, and all preparation was similar throughout. The first two or rather three cultivations (it was harrowed for the first one) were given with the cultivator, commonly called an Iron-age, but when the corn was about knee high I sent a careful man to the field with both a plow and cultivator, and ordered him to plow the first ten rows, making one-half acre, to cultivate the next ten, and so on through the field. This system was followed right along until every other ten rows were laid by as flat as possible, and the alternate ten rows ridged up as high as possible, each row getting exactly the same amount of work, and every row worked the same day, so that only ten or eleven hours ever intervened between the working of the first and last row, and now note this particularly. The plow never was allowed to run any deeper than the cultivator, and both approximated two and a half inches very closely.

Now, it so chanced that the Farmers' Club met at my house that year in August, and I carried them all out (as it was the custom to examine the farm before dinner). After that meal the Chairman, as usual, asked each member what there was about the place which most forcibly impressed him, and I remember that although our Club was then composed of violent advocates of both systems the answer was the futility of the experiment I had made, due to the evenness of the corn and the remarkable uniformity the whole field exhibited.

This corn I gathered with my own hands, half an acre at a time, to make assurance doubly sure, and measured in the ear all in one hamper, which held just enough to shell out one-half bushel of corn. The level land turned out exactly an average of forty bushels of shelled corn, or, as we generally speak, of it in Virginia, eight barrels per acre; the ridged land turned out forty bushels, one peck and a half of shelled corn, or eight barrels and nearly half a tub, as we figure it. The fodder I did not weigh, as I had no facilities for doing so, and it was a matter of more or less indifference to me at the time, as I always had plenty of roughage. Good judges who examined it said the level land was a trifle the best in blades, but I never like to commit myself unless I have a scale or some measure to judge by more accurate than the eye. This field was as level as a field could well be with a three-foot ditch on three sides of it. The drainage was then on the whole rather better than is the average of our river bottoms. Since that time I have learned that some lands want to be left level, and some in ridges or rows, and the difference is due to three things—the ability of the soil to hold its moisture, the level of the water table, and the amount of rainfall to be expected during the growing season, and when I see any one recommending

level culture without regard to the above mentioned local conditions, I always feel regret for some poor fellow one has led to his financial hurt.

The dual-purpose cow seems to be a perennial subject, with Professor Massey ever in the forefront of the battle for the special purpose advocates. I suppose this question, like all others, has two sides, but I am afraid I have never been able to get in the right light to appreciate the two-faced man's advocacy. I have seen horses that could be used for riding and work and sometimes they were good saddle horses, and sometimes good driving horses, and sometimes good work horses, but I never saw one that could stay good at all three at once, and I have long ago abandoned the search for one, and so it is with the cows. We have breeds that give milk and keep thin no matter how much we feed them, and we have breeds that will get fat and go dry on a ration that a Holstein cow would starve on. But, so far as my observation goes, I have never run across the breed that will give milk like a Jersey or a Holstein and stay fat in the doing of it.

Whenever you try to get a happy medium you get an unprofitable animal for either purpose. They must do what they do in competition with an animal bred especially to do that thing. The French have for a good many years been trying to produce a dual-purpose dog. Their idea of a sporting dog is one that will stand and retrieve a bird and the next minute run a rabbit or hare just as a hound does, and I suppose they would be pleased with greyhound speed and squirrel treeing propensities as well, but, be that as it may, they have never produced either a bird dog or a hound at all comparable with our dogs, which are only bred to do one thing, and I think the comparison holds good throughout all "variations under domestication."

It would seem from the February issue that our Virginia farmers differ as much about plows as about female beauty in which the taste, fortunately for us, has a wide range, otherwise we would all be wanting the same wife.

Personally, I long ago arrived at the conclusion that every extra appliance added to a plow increased the draft and also that the better the plowman, the less fixtures he needed. I never use anything but a chain when I am doing my own work, but I sometimes have to apply a wheel when employing hired labor, even then I aim to so set my beam that it will touch only the high spots, and make it a rule to get in the furrow long enough to be sure everything is at its best possible hitch, whenever I start a new field. The man who gets the widest possible margin between the cost of production and the sale price is the one who will come out on top in the long run and, similarly, the man who turns the required furrow with the least possible effort on the part of his team is the one who will accomplish the biggest day's work and have the smoothest, best looking team when the plowing is over.

To properly set a plow is a combination of theory and practice, and I think the gift is born in some and not to be acquired by others. When I see a plowman go

into the field with a wheel coulter and monkey wrench, and come out with everything but the wrench consigned to the fence corners and the plowing well done I have found the sort of plowman I am looking for.

Different plows are adapted to doing various kinds of work on various kinds of soils, and I have never yet seen a general-purpose plow that could equal the special-purpose plow when doing the kinds of work the special-purpose plows have been designed to do.

Mathews Co., Va.

PERCIVAL HICKS.

INDIAN RUNNER DUCKS.

Editor Southern Planter:

Having observed that comparatively little is written on duck culture, it is my purpose to bring before the poultry loving and poultry raising public the advantages of Indian Runner ducks of pure bred strain over other fowls. These ducks are not so large as the Pekin or other large varieties, their standard weight being from four to four and one-half pounds for adult birds, but can be bred to greater weight, if so desired. They are the Leghorn of the duck family, however, and should be kept to the standard weight for best results in egg production. They are extremely hardy as ducklings or mature fowls, a duckling when hatched is as good as raised, barring accidents. No trouble to raise them, no lice, mites, drooping wings, cholera, roup, scaly legs or frosted combs. No nest boxes or dust baths to provide and no flying over fences or scratching up of gardens, (a point which should appeal to all farmers and truckers). In color they are brown or fawn, and white; the brown a trifle larger, but the color has nothing whatever to do with laying qualities. As egg producers they have no equal; indeed, their fine laying qualities, combined with their docility and easiness of control has decided me to abandon all other fowls. They are year round layers, excepting a part of July and August, (their moulting season). They mature early, and will lay in four or five months if fed for the purpose. Their eggs are larger than hen eggs, and of delicate tint and fine flavor, and bring a considerable premium over other eggs on markets where they are known. They are especially adapted to winter egg production if fed for the purpose, and bear confinement well with only water for drinking purposes, yet are great foragers, and will find a considerable amount of their food if given the opportunity. As a table bird there is none superior, their flesh being tender, juicy and delicately flavored. To all who wish to make a good investment on a small capital, I would recommend the Indian Runners. They are desirable both for pleasure and profit. There is money in them.

MRS. B. J. GRASBERGER.

Louisa Co., Va.

The first spring days make us all uneasy to get out on the land to work; but, fellow farmers, we can gain time and be sure of better crops by just sitting still until the earth is dry enough to work. There is no surer way to spoil land than to work it when it is too wet.

Trucking, Garden and Orchard.

WORK FOR THE MONTH.

The continued mildness of the weather has tempted truckers and gardeners to get to work planting the earliest crops. We would urge that they should "make haste slowly" in this matter. Winter is not done with yet, and crops planted now will run great risk of having to be replanted later. We, of course, realize that it is the early bird which catches the worm and the temptation to try and be on the market with the first crops is great, as the price is then the best, but we would say in reply to this that consideration of the fact that the Florida, South Carolina and Gulf Coast growers are now so strongly in evidence with their products on the Northern markets that it is very doubtful whether it pays to come in competition with these men who can certainly put their crops on the market in better maturity than we can early in the season. Formerly these sections did not grow large crops and then the inducement to be on the market early was great, and when succeeded in was very profitable. We believe now that it is better policy to let these far Southern crops get out of the way and only aim to get on the Northern markets in time to keep up the normal supply and fill the demand which these early products have created. Better spend the time in more completely fitting the land to make the best yield possible, and by aerating it and throwing up into ridges get it warmed up so that when planted the crops will have every advantage which can be given them to induce rapid growth. Get the compost and mineral fertilizers well worked into the land and the ridges thrown up so that the sun and air can play on them, then, by the middle of the month, split out these ridges or rows and plant the first crops. Keep the sets and seed well above the bottom of the furrows between the rows so that if heavy, cold rains come they will be kept out of the water and thus saved from rotting. A small part of the crop set out in this way will, if the season keeps mild, come on early and may be profitable. If frost threatens when the plants are just coming through the ground, plow a light furrow to them and thus protect them a while longer. Both Irish potatoes and English peas may be planted out in the first part of the month in this way to a limited extent, but we would not advise the setting out of a full crop of either of these crops before the last half of the month, even in Tidewater Virginia or Eastern North Carolina. In middle Southern and Piedmont Virginia the beginning of April is soon enough to plant the first crops and then continue planting through that month.

See to it that fertilizers needed are ordered and on hand, and in buying these bear in mind what we have written on the subject of buying by the analysis and not by the name, or, what is still better, buy the materials and either mix them yourself or have your fertilizer merchant mix them for you to your own formula, so that you can get what you know your land and crop need. There are few brands of fertilizers on the market which are rich enough in potash and ammonia for the needs

of truck growers and gardeners, and hence there is much disappointment in results when these are relied on. In our last issue we published formulae for fertilizers for the principle vegetable crops, and to these refer our readers. Order your seeds, plants and sets early so that you may have them on hand when wanted. Irish potatoes for the early crops should be sprouted before being planted. Spread them out thinly on a flour where the sun can warm them and they will soon begin to sprout and can then be cut and set with the certainty of a plant. In cutting do not cut too closely, but leave at least two eyes in each piece with as much of the tuber with them as possible. In our last issue we gave advice as to treating the seed for scab. Professor Johnson, in charge of the Virginia Truck Experiment Station has just sent us a Bulletin which he is issuing on this subject and on treatment of the early blight on Irish potatoes and mildew on cantaloupes and cucumbers. In this he states that these diseases cause serious loss every year in the Tidewater section, and we know this to be true also of other sections. He says one grower reported a loss of 50 per cent. of his main crop of potatoes from scab, whilst the loss from early blight in many instances aggregates 15 to 20 per cent. in the first crop and as high as 60 per cent. in the second crop. He recommends treatment of the Irish potatoes with Formalin Gas where large quantities are to be treated instead of with the formalin or corrosive sublimate solutions which are more adapted to small quantities. The method of making this gas and applying it is described in the Bulletin, and this can be obtained by writing Professor Johnson for the same, addressing him, Virginia Trucking Experiment Station, Norfolk, Va. For the early blight on potatoes and mildew on cantaloupes and cucumbers, the remedy is spraying with Bordeaux mixture, the formula for the making of which will be found with the Spray Calendar in this issue, or in the Bulletin referred to.

In this issue will be found full advice for spraying fruit trees for the destruction of insect pests and fungoid diseases with formulae for making the sprays. The Spray Calendar has been revised by Professor Phillips, of the Crop Pest Commission. Keep this issue where it can be readily referred to and get busy spraying as soon as possible and follow it up all through the season if you would have fruit of the finest quality.

Cabbages set out in the fall should be cultivated as soon as they show signs of growing and this should be kept up so as to push the growth. If the plants do not seem to grow off freely, give them a top dressing of nitrate of soda down each side of the rows at the rate of 150 to 200 pounds to the acre. This will soon start them to growing and get them out of the way of the worms.

Strawberry beds should be worked as soon as the ground is in proper order and if required by the want of fertility in the soil a dressing of nitrate of soda, 100

pounds; acid phosphate, 400 pounds; and muriate of potash, 400 pounds, to the acre should be applied and be worked in.

FORMULAE FOR SPRAY MIXTURES.

Copper Sulphate Solution.

Copper Sulphate (bluestone).....2 to 4 pounds.
Water50 gallons.

Dissolve the copper sulphate in a bucket of hot water, as it dissolves more quickly in hot water; and dilute to the desired quantity. Use wooden or earthen vessels for copper sulphate solution. This solution is to be used on dormant plants, before the leaves have expanded.

Bordeaux Mixture.

1.
Copper Sulphate 4 pounds.
Unslaked Lime..... 5 pounds.
Water50 gallons.

2.
Copper Sulphate..... 3 pounds.
Unslaked Lime..... 6 pounds.
Water 50 gallons.

For all stone fruits, after leafing out.

No. 1 can be used on these plants during the dormant season.

Dissolve the copper sulphate as mentioned above, slake the lime in a bucket of water and dilute with several gallons of water and strain through a coarse cloth to free the mixture of the small lumps. They interfere with the free flow of the mixture through the spray nozzles. Mix the two solutions together after diluting each to twenty-five gallons. Use this for rots, molds, mildews and all fungous diseases. For potato blight add two pounds more of copper sulphate.

A combined fungicide and insecticide for biting insects may be made by adding eight ounces of either Paris Green or London Purple, Green Arsenoid or Arsenate of Lead to the above.

Ammoniacal Copper Carbonate Solution.

Copper Carbonate..... 6 ounces.
Ammoniaabout 3 pints.
Water50 gallons.

Dissolve the copper carbonate in ammonia in a closed wooden or earthen vessel and add to it the required quantity of water when ready to apply. As ammonia varies in strength, some care is necessary to use no more than is needed to dissolve the copper carbonate. This preparation is used for the same purpose as Bordeaux, but is intended to be used only when fruit is nearly grown, as Bordeaux sometimes affects the skin of ripening fruit.

Kerosene Emulsion.

Hard Soap.....½ pound
Boiling Water1 gallon.
Kerosene2 gallons.

Use "soft water" (preferably cistern water). Dissolve the soap in the boiling water; add the kerosene and churn violently until the mixture becomes like buttermilk—not less than five or ten minutes. Dilute with water ten to fifteen times before using. For sucking insects.

For scale, use strong emulsion and apply while the

insects are still in the larval stage. For plant lice, mealy bugs, red spider, etc., the weaker solution may be used. Soft bodied insects like the cabbage worm may be destroyed with this solution.

Lime, Sulphur and Salt Mixture.

Lime, 15 pounds (unslaked); sulphur (flowers), 15 pounds; salt, 5 pounds; water, 50 gallons. Put four or five gallons of hot water in an iron kettle (20 gallons capacity), add 15 pounds lime. Stir with wooden paddle so as to spread it about, then, as soon as in full boiling from slaking, add 15 pounds sulphur and mix briskly with lime, adding boiling water as needed to bring the whole mass into a thick paste, then add water enough to make 10 or 12 gallons and boil from 30 to forty minutes. Add the salt when the paste is diluted. When the wash is cooked, strain and dilute to 50 gallons.

Paris Green.

For biting and chewing insects.

Paris Green.....1 pound.
Water160 to 200 gallons.
Lime2 pounds.

If used dry, as a powder, mix it with 100 times its weight of dry flour, plaster or air-slaked lime.

London Purple may be used in the place of Paris Green, but should have more lime mixed with it.

Persian Insect Powder.

Fresh Powder.....1 ounce.
Water2 gallons.

Spray on plants for soft bodied insects. The powder is frequently dusted on plants and is probably preferable to the liquid form. The material is not poisonous to man, hence can be used in dwelling houses to kill house flies and mosquitoes. For such cases, first close all doors and windows and dust the room well with the powder (usually at night) and leave it so for several hours. It is a good idea to burn a spoonful or two on hot embers so that the fumes may fill the room. Be sure that the powder is fresh, because when old it often fails to kill.

Prevention of Irish Potato Scab.

Mix 2 to 2.3-4 ounces of corrosive sublimate with 15 gallons of water. Dissolve the poison first in 2 gallons of water and then add the rest to make up 15 gallons. Let stand for 5 or 6 hours, stirring several times during this time. The seed potatoes should be dipped in this solution, and let remain in it for from an hour to 3 hours before being cut. After the potatoes have been dipped, they should be kept out of the reach of cattle or live stock of any kind, and should not be left where they can be taken by any one for human consumption, as the solution is a violent poison, and sufficient of the sublimate will remain on the tubers to cause death if they are eaten. Successive lots of seed potatoes may be dipped in the same solution until it is all used up. Do not mix the solution in metal vessels. Formalin may be used instead of and in the same way as the corrosive sublimate if more convenient to be had. It is prepared by mixing 8 ounces of 40 per cent. solution with 15 gallons of water. This mixture is also poisonous.

SPRAY CALENDER FOR 1909.

PLANT.	DISEASE.	What to Apply.	First Application.	Second Application.	Third Application.	Fourth Application.	Fifth Application.
APPLE.....	Bitter Rot.	Bordeaux Mixture.	30 days after fruit has set.	2 weeks later.	2 weeks later.	2 weeks later.	2 weeks later.
	Scab	Bordeaux Mixture.	Before buds swell.	Just before blossoms open.	After blossoms have fallen.	Repeat if necessary	
CODLING MOTH.	Codling Moth.	Paris Green or Arsenate of Lead	Just after fall of blossom.	10 days to 2 weeks later.	Last of June to 1st of July.		
	San Jose Scale.	Lime Sulphur Mixture.	Just before buds swell.	10 days later.	Also good for first buds		
BEAN.....	Anthracnose.	Bordeaux Mixture.	While trees are dormant.	10 days later.	Just before buds swell.		
	Rusts.	2 lbs. Copper Sulphate to 50 gals. Water.	When plants are 2 to 3 inches high.		Repeat as needed.		
BLACKBERRY.....	Cabbage Worm.	Pyrethrum or Persian Insect Powder.	Before buds open.	Bordeaux after blossoms have fallen.	Repeat as needed.		
	Harlequin Bug.	Hand pick them; also plant an early crop of mustard or	When worms appear.	Repeat as needed	turnips as trap crop		
CABBAGE.....	Melon Aphids.	Destroy all plants on which first few leaves appear.	When first few leaves appear.	Repeat in 10 days.			
	Beetles.	Lead Arsenate.	Before buds open.	Before blossoming.	Under side of leaves		
CANTALOUPE.....	Anthracnose.	Bordeaux Mixture.	Before buds open.		Just after fruit has set.		
	Black Rot	Bordeaux Mixture.	Before buds open.		After fruit has set.		
GRAPE.....	Downy and Powdery Mildews.	As these diseases appear	Before buds open.		10 days later.		
	Leaf Folder.	Paris Green.	First appearance.		10 days later.		
PEACH.....	Brown Rot.	Bordeaux Mixture, or Lime Sulphur.	Before buds swell. (4-5-50 formula.)		Repeat when fruit sets.		
	Leaf Curl.	Bordeaux or Lime Sulphur.	Before buds open.		Repeat when necessary.		
PEACH.....	Canker Worm.						
	Curculio.	Arsenate of Lead.	When buds are partially opened. (2-5-50 formula.)		Repeat when necessary.		
PEACH.....	San Jose Scale.	Lime Sulphur	When fruit has set.		Jarring over before buds start.		
	Blight.	Promptly remove 5 to 10 lbs. per tree	Apply in winter on limbs. Best done in winter. Cut off part muriate of potash and 2 parts		to 14 days through hot season.		
PLUM.....	Brown Rot.	Same as for Peach	When leaves appear	At intervals of ten			
	Shothole Fungus.	Bordeaux Mixture.	When plants are 6 inches high.	10 to 14 days later.	Repeat as needed.		
PLUM.....	Curculio	Same as for Peach.	When plants are 6 inches high.				
	Blight.	Bordeaux Mixture.	When plants are 6 inches high.				
POTATO, IRISH.....	Colorado Beetle.	Paris Green.	When plants are 6 inches high.				
POTATO, SWEET.....	Black Rot.	Grow slips from clean healthy potatoes.	When plants are 6 inches high.				
	Rust and Mildews.	Bordeaux Mixture.	When disease appears				
STRAWBERRY.....	Blight	Bordeaux Mixture.	When disease first appears.				
	Fruit Rot.	Bordeaux Mixture.	When fruit is set.				

The efficiency of spraying will depend upon the time and thoroughness of the applications. Spraying for diseases must be in the nature of prevention and not as a cure. All sources of infection, such as diseased wood, diseased leaves and diseased fruit, should be removed and destroyed. Keep this Calendar for reference during the year. You may need to refer to it. By combining treatments recommended for scab and blight rot all other fungous disease attacking the foliage and fruit of apple are kept well under control.

NOTES ON SPRAYING AND SPRAYING INGREDIENTS.

Apple—The Codling Moth.—Arsenate of lead has now reached the stage that it is almost as cheap as Paris green per tree sprayed. Arsenate of lead stays in suspension better than Paris green, and requires, of course, less agitation. It contains less soluble arsenic, hence is not so liable to injure the fruit and foliage. It also adheres to the fruit and foliage much better than Paris green. Taking everything into consideration, where it is anything like the price of Paris green, I would choose it in preference. In spraying for the codling moth it should be used at the rate of about two pounds to fifty gallons of water or Bordeaux. The second application should be made about two weeks after the first. If these two applications are very thorough, the third application will not be necessary. However, it is usually well to make the third application about the last of June or the first of July. I do not think very much is gained by picking up the wormy fruit. A very large per cent. of the worms leave the apples before they fall to the ground, and even if they did not, they would leave so soon afterward that the apples would be picked up without taking the worms. The worms would escape before the apples are picked up, pupate and finally reach the adult state. If the spraying is thorough, two sprayings are sufficient. More spraying is time and money wasted.

Peach.—Both arsenate of lead and Bordeaux mixture have been used on the peach; however, there is some danger in the application, and each person should experiment for himself, before using either to any great extent. I would not use Bordeaux stronger than 2-5-50, or the arsenate of lead stronger than 1-1-2 pounds to fifty gallons.

The Brown Rot is difficult to control at best. Pruning so as to have an open-headed tree, and even then sufficient thinning out to let in plenty of sunshine and air, will greatly improve the chances for success with any remedy. A recent method of treatment is to use ten pounds of sulphur and ten of lime, to make a self-boiled lime-sulphur preparation, which is afterwards diluted to fifty gallons. The boiled preparation would not do under any circumstances. The self-boiled preparation, that is, boiled only with the heat of the slaking lime, has proven fairly successful during the past two years. This, however, requires careful watching, or one may get the preparation too strong, and thus cut off the foliage, or applying it so heavily will coat the peaches, and thus materially interfere with their sale.

Treatment of Plums with arsenate of lead is not near so hazardous as treating peach. The above remarks in regard to treating peach, however, will apply to some extent.

Blight of the Pear can be controlled very largely by controlling the soil conditions. Growing of peas or clover in the pear orchard is very hazardous, as the increased supply of nitrogen causes the tree to make a rapid growth that blights rapidly. Rich soil or too much cultivation would contribute to the same end. Heavy applications of phosphate and potash, cultivation but once a year, and that in the early spring, and care not to manure with stable or nitrogenous manures, etc., should make the new wood mature up so well, that the blight

is not near so apt to attack it. These remarks apply to some extent, also, to the apples.

Blacksburg, Va.

J. L. PHILLIPS,
State Entomologist.

INSPECTION FOR PEACH YELLOWS AND SAN JOSE SCALE.

Editor Southern Planter:

During the spring of 1908 the writer called attention to the fact that we have large areas in this State, well suited to the production of fine peaches, as well as apples, and in connection therewith, called attention to the methods of controlling peach yellows, followed up so successfully in Michigan.

It was also stated at that time that this disease could readily be controlled in Virginia by destroying diseased trees, as soon as they showed the first appearances of the disease.

Some counties have taken up the inspection for peach yellows, as well as for San Jose scale, and have done the work with such thoroughness, that we have facts, now, to report, in regard to this work, which will show that the control of peach yellows in the orchards of Virginia is no longer an experiment, but an assured fact.

Fruit growers, of course, understand that when once an orchard becomes infested with San Jose scale, if the trees have reached the age of four or five years, it is necessary to spray them for this insect, and that it would be necessary to spray the trees, whether the orchard is isolated, or adjoining other orchards, which might be very much worse infested. Thorough treatment with lime-sulphur will hold this insect in check, no matter if badly infested orchards stand just across the fence. Yet there will always be enough left to re-infest the orchard, and it will be necessary to spray the orchard year after year.

Hence the efforts at inspection for San Jose scale, must be directed, mainly, toward preventing its spread to non-infested orchards, and to call the attention of persons, who are not yet fully familiar with this pest, to the fact that their orchards are infested, and outline to them proper methods of treatment.

This method of procedure has been followed generally in Virginia for a number of years. Nelson county shows to some extent, how successful these methods of work have proven. In 1902 the orchards inspected in Nelson numbered 685, only two and a half per cent. of which were found to be infested with scale. Though the work has been broken into in this county by many changes of the inspection force, the inspection of 917 orchards during 1907-8 showed that the number of infested orchards had increased only about seven per cent. in six years.

A large number of these infested orchards contain but a few trees, hence the per cent. of total trees infested is very small. The results here are much better than in some other counties, where San Jose scale had obtained a strong foothold before the people were induced to take up the inspection work.

With peach yellows, the conditions are quite different. Thorough inspection must be had, wherever it is desirable to grow peaches, or it will be impossible to grow

them profitably for any length of time. As there is no remedy known but to destroy the diseased trees, therefore, when the first symptoms appear, this must be required, or the inspection is of little benefit.

The inspection work against peach yellows has been quite successful in a number of counties. Some facts in regard to the work in Albemarle county should prove of interest, and give an idea of its success in general. The following is quoted from report just made to the Board of Supervisors:

"The number of trees inspected in Albemarle county during 1908 reached a total of 708,965. Of this number, 440,413 are apple, 229,721 peach, 11,978 pear, 15,923 plum, and 10,930 are miscellaneous plants, the names of which are not given. A large number of these orchards were inspected the second time during 1908, to find out how well the recommendations for controlling these troubles had been carried out.

"The inspection for yellows was begun in Albemarle before the disease had gotten a foothold in many of the orchards, hence the opportunity to control it was very good. Of 975 orchards inspected during 1908 nearly all of which contained some peach trees, only 194 showed the presence of peach yellows. And while about three per cent. of the trees standing diseased at the close of 1907, and almost as large a number had already been destroyed, only 2167 in 228,721 inspected, showed up the disease in 1908, or less than ten trees to the 1,000, and less than four of these diseased trees in 1,000 are now standing, the others having been destroyed.

"This is very gratifying to the Crop Pest Commission, and certainly should be to the fruit growers of Albemarle county. It holds out a fine prospect for the peach growing industry, and shows that the growers are alive to the situation. Regardless of any other propositions, we must have efficient inspectors, and they must be supported by the growers if anything definite is to be accomplished.

"The Michigan growers claim that where the inspection work is carried on to the best advantage, only about one tree per 1,000 is lost per year, and I confidently predict as good results for Albemarle and the rest of this State if the inspection of orchards is pushed as it has been in sections of Albemarle during the past three years.

"A note of warning is necessary at this point, for the growers must not rest in fancied security because of what has been accomplished, but encourage their inspectors, and push on this inspection work to even a higher degree of efficiency, or the present conditions may not continue. These remarks hold good in regard to San Jose scale also."

The peach industry has been handicapped in this State long enough, and there has been enough loss from peach yellows. If the growers will now get together and see that the disease is controlled, there will be no dearth of peaches in the Virginia markets or elsewhere, for the large areas here, suited to the culture of this luscious fruit are capable of yielding an almost unlimited supply.

J. L. PHILLIPS,

Blacksburg, Va.

State Entomologist.

THE GEORGIA FRUIT EXCHANGE.

Editor Southern Planter:

A letter recently received from President Bagley, of the Georgia Fruit Exchange, with circulars outlining the scope and objects of the exchange, seems so important to Virginia fruit growers, now that two associations have been organized for similar purposes in this State, that I take the liberty of presenting the matter here for the benefit of our growers.

The movement for an organization was inaugurated September 10 and 11, 1908, at which time a committee was formed for perfecting arrangements for a permanent organization. How well this has been done, will appear from the following quotation from President Bagley's letter:

"We have perfected our organization as indicated by the above heading, and now have shipment pledges covering eighty-five per cent. of the entire crop of Georgia, and expect within the next few weeks to increase the amount to something above ninety per cent. All of our growers are enthusiastic, and we ourselves are confident that we have solved the difficulties that have heretofore marred the success of peach-growing in Georgia."

President Bagley outlines the plan and purpose of the exchange as follows: "It should be fully understood that this is a movement inaugurated by the peach-growers of Georgia, and that it will be owned and operated exclusively in their interest. * * * Each member of this committee (of organization) is a leading grower, and has no interest, directly or indirectly, in a commission house. The members of the committee are devoting their time and money to the effort to organize the growers into this co-operative plan, without compensation and without the hope of compensation, except such returns as they would receive in common with all growers in the state by reason of the enhanced prices that will result from a proper distribution of the crop.

"It is not the purpose to form the peach growers into a trust to dictate prices, it is simply to insure normal returns for our product by carefully considering the consumptive demands of all the markets and supplying them direct with shipments covering their pro rata proportion of each day's output. By this means it is hoped that an equilibrium as to prices will be established in all the markets, and, that the net price received by the grower from any one market, will be on a parity with that received from other markets.

"Previous efforts at organization among peach growers have failed: first, because of lack of financial support; and, second, because in most cases the movement was organized in the interest of certain commission houses. No attempt was made by these organizations to control the supply, which would enter any of the markets under consideration, and the result was, that growers received only the ordinary benefits of good salesmanship and businesslike attentions to their shipments.

"The present plan is radically different in every respect. First, it proposes to be capitalized at not less than \$100,000 full paid, and as this will give an excellent financial standing, it will be able to obtain the services of high-class men, and it will be a guarantee of financial

stability to all with whom it may have occasion to do business.

"The time was never more propitious for perfecting an organization of this nature. The 1908 crop in the early spring gave promise throughout the State of the best results ever gotten by peach growers; but when marketed, it proved the most unsatisfactory in many years, and it was generally agreed that this resulted from lack of proper distribution."

From the letter-heading we learn that thirty-six branches or shipping points have already been arranged for, and the following quotation will show that the movement is not only statewide, but, in a sense, interstate as well:

"This movement has already secured the active and hearty co-operation of all the progressive growers in the State, and it is believed that before the beginning of the next shipping season at least ninety per cent. of the Georgia crop will be pledged through the exchange. Peach growers in the neighboring States of South Carolina, Alabama and Tennessee are invited to co-operate, and correspondence is now proceeding with growers in Texas and other Southwestern States, with a view of a like organization which, if completed, will work in friendly conjunction with the Georgia Fruit Exchange, in order, so far as possible, to avoid unnecessary conflicts in shipments.

"The agency of the exchange established at each of the large shipping points in the fruit-growing belt will be in constant communication during the shipping season, both with the manager of the exchange in Atlanta, and with the individual shippers, and will thus be in position to serve both growers and buyers in every detail.

"Prior to the shipping season all of the Northern and Eastern markets will be carefully investigated, and high class commission houses appointed in each to represent the exchange. It is contemplated in the larger markets, such as New York, Philadelphia and Boston from five to eight houses in each city will be carefully selected, and their selection will be determined largely by the record each house has made in handling Georgia peaches in the past. Inasmuch as each of these houses will understand that its connection with the exchange will depend upon satisfactory service the members of the exchange will not only receive the benefit of having their fruit sold by the very best houses in the market, but they will know that they will be getting the very best service that can possibly be rendered by each of these houses. It is the purpose of the exchange to so concentrate its business in these several houses, as to make the connection valuable to these houses, that it may in turn, expect of them the very best possible service for its members.

"All commission houses, whether selected by the grower or the exchange, will make remittance with sales account, to the shipper, and will at the same time, furnish the Georgia Fruit Exchange with a duplicate sales account and a check covering the exchange proportion of the commission charges.

"It is not contemplated by the promoters of this movement that the commission charge to the grower will in

any material measure be increased over the present basis. On the other hand, it is stipulated in the shipment pledge that a gross commission charge of ten per cent. (which is now made in practically all the Northern and Eastern markets) shall cover the commission charge. The exchange expects to receive a division of this commission from its correspondents or commission houses sufficient to cover safely its expenses, and this will be in lieu of the expense heretofore incurred by such houses in soliciting the business from growers. It is believed that a liberal concession on the part of the commission houses will result in their smaller percentage yielding a larger return by reason of the increased price received, than the larger commission now paid them. Under this general arrangement the grower receives the benefit of a service which, even to the larger shippers, would be more expensive than he could afford, and yet will be taxed absolutely nothing in return therefor. On f. o. b sales it is contemplated that the grower will pay to the exchange five per cent. of the proceeds, in consideration of being guaranteed a protected market for the final disposition of his product."

We agree with President Bagley that the outlook is very encouraging, and confidently expect that the Georgia and Virginia Association will soon make as great a name for themselves as have the Hood River and other Western associations.

READER "M."

We commend the foregoing to the careful attention of our fruit growers. The organization is on sound business lines, much in accord with the organization of the Eastern Shore Produce Association, which has effected such successful results for the truckers of that section.—Ed.

VIRGINIA APPLES IN NEW YORK.

Mr. Walter Whately, Secretary, Crozet, Va.:

Dear Sir,—As per your request, I herewith submit report on the apple exhibit made by the Virginia State Horticultural Society, under my supervision, in New York during January:

I took charge of these apples on January 8th. I was ably assisted in their wrapping and packing by Messrs. Long, Cole and Brockenbrough, of the Society, getting everything in shape for shipment by midnight of the date mentioned. On the 9th I consigned by express the nine and a half barrels and eleven boxes to E. P. Loomis & Co., 95 Barclay Street, New York, at the same time writing them requesting that they store at proper temperature until I had consummated arrangements for their display.

Allowing the fruit one day's start, I followed, reaching New York on the morning of the 11th. My first step was to investigate location for display. I went to Simpson, Crawford & Co.'s, a large department store in the retail dry goods district, who had, by correspondence with yourself, offered space for this display. I was cordially met, and given my pick of several locations, all of which were on the sixth floor, and amid numerous exhibits of various products being demonstrated to catch the retail trade. The two objections that first presented themselves to mind were that we would not reach at this

location the buyers of apples in unbroken packages, and that amid such a maze, the distinctiveness of the display would be largely lost. I, however, took it under consideration, and asked for full details of the requirements of Simpson, Crawford & Co. in return for the space. These requirements were \$75.00, a contribution to advertising, and the supplying of proper display fixtures, arrangement and attention to the exhibit.

I then went to E. P. Loomis & Co., where I found the fruit had arrived. This firm expressed the opinion that an exhibit made in the produce dealers' district would prove of far greater value as an advertisement than elsewhere, which view was a confirmation of my own opinion. They further expressed the belief, which was endorsed by others, that to impress the trade, the fruit could not be shown in plates or bulk, but must show its adaptability to fancy market packages, and so should be shown in boxes. Mr. Ed. Loomis went with me in person, and introduced me to Kleinhart & Kelly, who had recently made an apple exhibit for the Hood River Valley Association. He also gave me letters of introduction and endorsement to the Fruit Auction Company, and the Secretary of the Produce Trade Association, besides placing his packing rooms at my disposal. Messrs Kleinhart & Kelly, in turn, gave me valuable suggestions, and offered any assistance in their power.

I then visited the Fruit Auction Company's sales-rooms, on the corner of Washington and Franklin streets, where I was cordially received by Mr. Goodsell, of that company, who gratuitously placed at my disposal the same space the Hood River exhibit had occupied, which was on the ground floor, open to view by almost continuous glass on two sides, fronting on both streets, and further offered the use of already constructed stands. This position seemed most desirable, and I accepted it.

I then called on T. F. Park & Co., who, in turn, offered every assistance, adding another to the universal kind reception that the produce trade and allied industries extended to me whenever called upon.

I was now confronted with the task of making with limited means a creditable exhibit from a few apples already exhibited for a week and thrice handled and repacked, as compared with an entire carload of especially packed Hood River apples, upon whose attractive display no expense had been spared. With a total of thirty-five boxes of fruit, I doubled the quantity in appearance by having boxes made with sliding bottoms, so that I need only use two layers of apples, but which, when opened, showed as full boxes.

Then I set about to decorate my space. Hood River exhibit had been greatly set off by attractive ones, and the contrast of none at all would be a severe handicap. I went to lithographer after lithographer, to be told that I was on a hopeless quest, as such labels were not carried in stock. Finally, I wound up at the United States Printing Company, in Brooklyn, where I was being told the same story, when I espied just what I needed, hanging on the wall. I called their attention to it, and was told it was a sample gotten out for a special purpose, and not in stock, but I persevered, and finally they unearthed fifty, which they let me have, and I had printed on them. "Virginia Apples. Exhibited by Virginia State

Horticultural Society, Walter Whately, Secretary, Crozet, Virginia," and so solved this problem.

Then I set to decorate my space. Hood River had used decorative plants, and bunting put in by professionals at a cost of over \$100.00, which was out of the question with me. So I employed labor, and set to work with crepe paper in white and green, with which I worked up a suitable setting. In the meanwhile I employed a Mr. Anderson, who had assisted with the Hood River exhibit, to box the apples, and he, with an assistant, worked at this while I worked on the decorations and notices.

I called on the leading fruit journals and commercial papers, who gave mention in articles of varying length. The Fruit Trade Association also kindly inserted a notice in their weekly confidential report. The result was an attendance that, while not large, was to the point, and representative of the people, most desirable to reach.

Owing to its previous exhibition and constant handling, coupled with the late season at which it was shown, the fruit did not do full justice to the best that Virginia can do by at least thirty-three and one-third per cent., but notwithstanding this, many encouraging comments were heard, one gentleman remarking, "Oregon hasn't it all her way by any means"; another, "Virginia ought to have done this long ago"; another, "If this exhibit had been made in the early fall, when the apples were still in the growers' hands, it would have been worth thousands of dollars to them," and others remarking, "I see I made a mistake by not operating in Virginia this year, and I am going to keep that territory on my list hereafter," etc.

The Hood River apples were only exhibited two days, whereas these, exhibited several months later, were being exhibited and handled for three weeks. Owing to this, they were naturally not in proper condition at the end, and not desiring to impair Virginia's reputation, I removed the labels, and had notice given that they had been on exhibit a long time, and were not guaranteed, and had them sold at auction with the exception of one box, which was sold privately for \$5.00, the others bringing about \$4.50 per barrel, or seventy-five cents for the two layers. This auction took place on Monday, the 26th of January, and I wound up details, and left for home on the 27th.

My high appreciation is extended our local member, Dr. J. B. Emerson, for the deep interest, courtesies and encouragement given me, and in closing, I express the opinion that the exhibit will prove of decided value to the State.

GEORGE E. MURRELL.

CHESTNUT TREE DISEASE.

At the recent meeting of the Virginia State Horticultural Society, Dr. J. B. Emerson called attention to the chestnut tree disease that is spreading over Eastern America. We regret to say that it would appear that this or an equally serious disease is already at work in this State. Major R. S. Lacy, of Ballstone, Va., has written us that his trees are dying, and he has had the same inspected by the pathologist from the Department of Agriculture. This gentleman reported that he could not

determine the disease, but that it was not the bark blight common in the North. He declined to make any recommendation as to treatment until he has seen the trees again in spring after the leaves are out. He seems to think that the disease starts at the roots. Mr. Lacy suggested that it would be well for Dr. S. W. Fletcher, of the State Experiment Station, to meet the pathologist of the Department at the further examination of the trees, and we have written him, asking that he will communicate with Major Lacy on the matter, which he has promised to do.

A SUCCESSFUL NEW YORK TRUCK FARMER.

Editor Southern Planter:

About a mile from the thriving village of Seneca Falls, New York, is the well tilled little farm of Mr. S. L. Bowen. Mr. Bowen is one of those intensive farming farmers who believes in having a few acres with good crops rather than a larger farm half worked. He makes a specialty of trucking for the nearby markets and by good cultivation and the proper use of fertilizers he always has the earliest vegetables on the market, and what is most important, gets the highest prices.

The fertilizer he uses is a mixture of about 1,300 pounds of acid phosphate with 600 pounds of muriate of potash, and 100 pounds of nitrate of soda, of which he uses about half a ton to the acre. He then uses from 100 to 200 pounds of nitrate of soda to the acre as a top dressing in two or more applications. He believes in using the nitrate of soda early in the season, before the nitrogen in the soil is available. He thus gets an early growth and he depends on the acid phosphate to ripen up the crop, and to give it quality. He believes in pure-bred seed, and has made a specialty of corn. In cultivating he plows deep, from seven to nine inches; then, after letting the land lay for a couple of weeks, he cuts it up thoroughly with a disk, putting it down not less than five inches. His hills are three and a half feet apart, and he leaves four stalks to the hill. On the ground which he intends to leave for seed, he carefully cuts off the tassels from all the barren stalks and unthrifty plants, and then selects the best ears from the stalks which carry them near the ground. By careful selection and good cultivation he has succeeded in breeding up a corn which he calls "Bowen's Gold Medal" Dent Corn, which will average, one year with another, from 100 to 150 bushels of ears per acre.

In order to test just what fertilizer his land needs, he tried an experiment on corn and potatoes last season. For corn he took three plots of one-sixth acre each, and on one he used no fertilizer; this plot yielded nine bushels. On the other he used potash, phosphoric acid and nitrogen, and this gave eighteen bushels, just double the yield of the unfertilized plot. As he had heard people say that corn did not need potash, he used the same fertilizer without the potash on the third plot, and obtained only eleven bushels from it, a loss of seven bushels. In other words, a gain of forty-two bushels of ear corn per acre resulted from the use of \$3.00 worth of potash, which was certainly a profitable investment.

With potatoes the experiment was the same, only he used a higher per cent. of potash in addition. To plot

No. 1 he applied no fertilizer at all; on plot No. 2 he used 300 pounds of a 3-8-10 goods, and on plot No. 3 the same fertilizer, with the exception of the potash. On a fourth plot he added sufficient potash to make the fertilizer run about sixteen per cent. potash. The yields on these one-third acre plots were as follows:

No. 1, twenty-five bushels; No. 2, fifty-five bushels; No. 3, forty-nine bushels, and No. 4, sixty-six bushels. Here the potash showed again in both cases. No. 4, with high potash, yielded seventeen bushels more than No. 3, no potash, which means fifty-one bushels per acre. These sold for \$33.00, a good return for less than \$5.00 worth of potash.

G. F. MARSH.

We do not publish the foregoing as any guide to farmers in this State as to what are the requirements of our soils in the way of fertilizers for the particular crops mentioned, but simply as showing how to ascertain what should be applied. Nearly all our lands in this State are sufficiently supplied with potash for the needs of the staple crops, if only this is made available by the use of lime. For the special potash-loving crops, like tobacco, Irish potatoes and most kinds of vegetables, potash is generally needed here as elsewhere.—Ed.

PRUNING THE APPLE.

The apple is the most cosmopolitan of orchard fruits, and the one about which there seems to be the most varied opinions in regard to the pruning of it. Every apple grower is confronted every winter with the question of how best to prune his trees. While pruning is a natural process, it should be avoided as much as possible as the tree gets older. The heaviest pruning, in proportion to the amount of tree top, is done during the first two or three years of the tree's growth. During this time the apple tree should be properly started, and should be well pruned, so that when it comes into bearing it will not be necessary to prune it severely.

Two forms are generally considered in the starting of the young apple tree in the orchard, the low and high headed tree. The choice of either one of these forms depends, to great extent on the cultural methods to be followed by the orchardist, and upon the climatic conditions. The high headed tree is perhaps better suited for northern and eastern conditions, while the low headed tree is better adapted to the Southern section of the country.

The first pruning of the young apple tree, after it has been transplanted to the apple orchard, should be carefully done, as at this time we determine the height of the trunk. The following spring a number of limbs will develop from the trunk. Three to five limbs should only be allowed to form the scaffold. At the next pruning, the following spring, these scaffold limbs are again cut back somewhat, and any interfering limbs are also removed. At the third, and even the fourth pruning the limbs should be cut back, and the tree rounded up generally. By this method of pruning the tree is shaped up that it may be properly started.

While there are some fruit growers who claim that the bearing apple tree should be cut back every year, the nature of the growth at that time in this climate does not warrant such practice, and on the whole, the results are

not so satisfactory. The bearing tree should be pruned a little every year. All the dead and broken limbs should be removed as well as those which interfere. Avoid the cutting of large branches.

The limbs should be cut as near the trunk as possible, so the wound may heal over quickly. Never cut limbs so as to leave a stump one or more inches in length. Such stumps, if left never heal over. The healing of the wound depends on the activity of the cambium layer. This layer is most active in the spring after the tree starts to growing. The longer the wound remains exposed the more it will dry and crack. Wounds which are made in the fall or midwinter necessarily remain longer before the cambium layer begins to grow over them than those made in the spring just before the tree starts to growing. While trees can, and may be pruned any time during their dormant period—that is, during the fall, winter and spring—the preference time is in the spring, shortly before growth begins.

FABIAN GARCIA.

New Mexico Experiment Station.

SPRAYING THE ORCHARD.

Editor Southern Planter:

As the month of March is practically the last month during which winter spraying can be done, and as it is necessary to clean the trees thoroughly of dormant pests, etc., as the first step towards having clean, good fruit, I trust you will allow me space to remind those among your readers who have not yet done so, to make their preparations without delay. Lime and sulphur in the proportion of twenty pounds of the former to fifteen pounds of the latter, mixed and cooked according to the instructions issued by our State Experiment Station, is the best all-round spray for winter wash, cleaning up, as it does, all insect pests, such as San Jose scale, and other scales; and also acting as a fungicide and fertilizer. The pruning should be done first, if possible, thus avoiding covering limbs with spray that are to be cut out, and also avoiding rubbing the spray off when pruning afterwards.

In last month's Fruit-Grower, published at St. Joseph, Mo., there is an excellent article giving experience in spraying for codling moth. My own experience for some years past is precisely the same as the one related. It has always been my practice to spray very thoroughly with a weaker than standard Bordeaux mixture (3-5-50) and add arsenite, and I am most particular to only apply this at exactly the right time, within some eight or ten days after the petals fall, while the calyx is wide open, and fruit clusters upright. I use a very coarse Vermorel nozzle, and find I can force the spray into the calyx very thoroughly, so effective is my application that I have not found it necessary to spray with arsenites a second time, and I have practically no harm done by codling moths. There are so few wormy apples that I have not considered the cost of a second application would be covered by the quantity of apples it might save. I have used green arsenoid, and lately Grasset's arsenate of lead, two to two and a half pounds per fifty gallons. I mention my experience, and how I have applied it, thinking that it may be of interest to your readers, and be-

cause it is on the same lines as that mentioned in the Fruit-Grower, though differing somewhat in details, though really appearing about equal. I use the lighter quantity of copper sulphate because the stronger formula of four or five pounds seems to russet the fruit, and there is not the same need for strong fungicide at that time as there is later when spraying for Bitter rot.

The following is extracted from the article on "Extermination of the Codling Moth at One Spraying" in the Fruit-Grower:

Exterminating Codling Moth at One Spraying.

Last year Professor A. L. Melander, of the Washington Experiment Station, reported a remarkable success in spraying for codling moth in the orchard of Mr. Z. A. Lanham, Wenatchee, Wash. For the benefit of our readers who have forgotten this article we will review the experience of this orchard:

It is a Ben. Davis orchard—and Ben Davis is a variety which is very susceptible to codling moth injury, as every one knows. In 1906 Mr. Lanham used a gasoline engine outfit to spray the orchard; he used arsenate of lead at the rate of three pounds to fifty gallons of water, and made six applications, applying the mixture with a Vermorel nozzle in the form of a fine mist.

At the end of that season, 1906, Mr. Lanham found that, notwithstanding his efforts, about half his fruit was wormy. Then he appealed to the authorities at the Washington Experiment Station, and in 1907 Professor Melander, of this station, took charge of the spraying work. This gentleman gave the orchard two applications, but held to the theory that only one thorough application was needed. At the end of the season very few wormy apples were found—so few, in fact, that the man who bought the fruit told the packers they need not watch for wormy apples in grading, for he would buy all the wormy fruit in the orchard.

What was the difference of treatment? Professor Melander used another style outfit, which would maintain a pressure of 150 to 175 pounds to the square inch; he discarded the Vermorel nozzle, and used a Bordeaux nozzle, throwing a much coarser spray; a tower was used, so that the mixture could be applied from above as well as from below, and the extension rod had a crook at the end, so that the nozzle could be properly directed. The mixture was applied from below from the side, and from above. The poison was literally driven into the calyx end of the young apple, and the tree was sprayed until every branch dripped. Regarding this spraying, Professor Melander says:

"By the time we are satisfied that every flower is filled the ground beneath the tree is wet. In this spraying we cover less than 300 trees in a day, giving each tree eight gallons of spray."

The spraying for 1907 was so satisfactory that in 1908 the orchard was sprayed only once, according to the plan recommended by Professor Melander. Mr. Lanham told the editor of The Fruit-Grower that before the orchard was turned over to the Experiment Station authorities he thought he had sprayed the trees right—but when he saw the thoroughness of Professor Melander's work he realized that he had only been playing at spraying—he had only been squirting the mixture on the trees. With

one spraying in 1908 the orchard was saved from worms, and at the time the orchard was visited by the editor of *The Fruit-Grower* in September, not a worm could be found—only forty or fifty pupae had been found under all the bands in the orchard, whereas in 1908 from seventy to eighty would be found under the band on every tree.

This demonstration has revolutionized spraying in the Wenatchee country, and we are glad to have the following article from Professor Melander regarding the effectiveness of one spraying for codling moth. The foregoing introduction is presented simply to show that the work which has been done has demonstrated that one thorough spraying has been sufficient.

Professor Melander's Story.

"Whenever we were asked a few years ago if it was possible to spray so thoroughly as to exterminate the codling moth, I would reply, no. We had sprayed thoroughly, very thoroughly, according to the existing standards of thoroughness, and even a dozen applications of spray failed to bring 100 per cent. of clean fruit. Even when the spray was used many times stronger than was necessary, there was wormy fruit in evidence at picking time. The last few years, however, have brought out better methods of spraying, so that now we can assert that not only can the codling moth be exterminated, but that this can be done by a single spraying.

"Everybody has noticed that it is late in the season that the crop is apt to become wormy. That is because the late brood is about twenty times more numerous than the early brood, so that where one apple becomes wormy before midsummer twenty will be wormy later. In many places there is a more or less complete third brood, which greatly multiplies the amount of wormy fruit towards harvest. It stands to reason that it is vastly easier to destroy the few first-brood worms than the many late ones, and that the more of the first ones destroyed the fewer late worms there will be to spray for. If spraying could be so thorough as to destroy all the first brood worms, there could be no second brood or third brood as well.

"The object of spraying is to place poison where the worm first feeds. A careful study of the entrance habits of the codling worm shows that about ninety per cent. of the worms from one end of the season to the other seek the lowermost calyx cavity through which to eat their way into the apple. This is not strange, for it is the only part of the fruit not protected by a hard epidermis. Since so many worms seek this part it must by all means be thoroughly coated with poison. It is nine times more important to have poison beneath the stamens of the apple blossom than to keep the outside of the growing apple uniformly covered by a dozen sprayings later.

"To reach the lower calyx cavity with spray there is available a period of about ten days after the petals fall before the sepals infold to close the calyx cup. If a spray be driven down directly at the throat of each flower through a coarse Bordeaux nozzle and under a pressure of 100 to 200 pounds, or even more, the lower calyx cavity will be effectively filled. A mist spray will not do it, a low pressure will not answer, nor will a coarse spray

shot into the tree to fall down into the upturned flowers. The spray must be driven from above, and that means pressure spraying from a tower, using a crook to connect the nozzle to the extension rod. Paris green, arsenic, lime or the dust spray will not answer so completely with this method. Arsenate of lead alone will serve best, but it is used no stronger than one pound to fifty gallons."

WALTER WHATELY,
Secy. Va. State Horticultural Society.

INBREEDING.

Editor Southern Planter:

The wretched experience I had in trying to raise some flocks of pure-bred chickens caused me to call attention to what I still believe to be a fact—that the constitution of many of the pure-bred chickens has been weakened by close inbreeding.

I notice that two who rather combated my remarks have tried to prevent the trouble by introducing new blood into their flocks.

Mr. Sherman sent to Maine for males and Mr. Husselman advertises "from stock not akin." I merely mention this to show that such good authority practices what I preach. I enjoy the practical articles these gentlemen and I send by this mail for Me. Husselman's book on poultry.

When a new breed is established a trio is sold, say to A. and A. sells a trio to B. and B. sells to C., etc., etc. Each time brothers and sisters are bred together. Any one can see the effect of this. In a former letter I mentioned that I had bought eggs of the Rhode Island Reds and was successful in raising the chicks in same boxes and with same feed where the former ones nearly all died.

The first season I bought a new male a few hundred miles from where I got eggs from which I raised the hens. In many instances the whole sitting (15) hatched. There were practically no infertile eggs and all the chicks were raised except those killed by accident. The conditions under which these chickens were raised were identical. The same boxes in which the other died. The same kind of feed, and the same ground. I can only assign hardness of the stock not yet injured by close inbreeding as a cause for success with this brood.

Though I have sold my farm I still expect to keep a flock of chickens.

It is proper to say that I have none for sale.

Rockbridge Co. Va.

T. M. WADE.

Black raspberries and dewberries require a rich piece of ground, plowed deep and well drained, but not dry. Set the plants in rows six feet apart, and three or four feet in the row. Cultivation often until about the first of August.

When the canes of raspberries reach a height of about twenty inches, pinch off the tip ends. This will cause them to grow stocky and throw out many branches, affording more bearing wood. Do this every year. In the spring prune the branches to about two feet in length; and, after the berries are picked, cut out all the old canes. For winter protection, where necessary, bend the canes down and cover with earth.

Live Stock and Dairy.

TESTS OF A VIRGINIA HERD OF HOLSTEINS.

Editor Southern Planter:

Hygeia Herd has just completed some very creditable A. R. O. records, and I beg a limited space in The Planter to report them. The animals tested were all young heifers, with either first or second calves.

Shadeland Mercedes Pauline DeKol 85288, as a senior two-year-old, produced 342.4 pounds of milk and 16.44 pounds of butter in seven days, her milk testing as high as 4.8 per cent. fat. This promising young animal is from Shadeland Dulcible 4th, A. R. O., 2092, whose milk production for her seven days test was 495.4 pounds, or over eight gallons per day, while her thirty-day milk production aggregated 2040.4 pounds. Her butter production for this latter time was 82.37 pounds. She has eight A. R. O. half-sisters, among the number being Dorinda DeKol 2d, A. R. O., 2228, and Anzaletta Pauline 2d, A. R. O., 2464. The latter's best day's milking while on her last test, made by Hygeia Herd, was 94 pounds, or, approximately, 11 gallons, while for thirty days she gave an average of 88 pounds every day. She also produced 101.43 pounds of butter during the thirty days. At the present time there are 120 cows of the Holstein breed which have made better than 100 pounds of butter in thirty days. Shadeland Mercedes Pauline DeKol was sired by Mercedes Julip's Pietertje's Paul, whose dam's A. R. O. record is 29.35 pounds. He is the sire of thirty-two daughters, including thirty-one, aged three years or younger, averaging 14.84 pounds of butter each in seven days. He is also the sire of King Segis, who was the only four-year-old sire the breed has produced, having four daughters with records of over 20 pounds of butter each as junior two-year-olds. At present King Segis has seventeen officially tested daughters, fifteen as junior two-year-olds and two as senior two-year-olds, all of which average 17.18 pounds each. Mercedes Julip's Pietertje's Paul is valued at \$20,000, while King Segis commands an even greater value.

Scotia 4th's Canary Goudgeld 85289, as a senior two-year-old, produced 340.8 pounds of milk, and 14.25 pounds of butter in seven days, her milk testing as high as 3.8 per cent. fat. She is from Scotia 4th, A. R. O., 2019, and by Goudgeld Mercedes Prince, whose dam has an A. R. O. record of 21.86 pounds of butter in seven days. His sire is the sire of twelve A. R. O. daughters, including two yearlings with records averaging 12.61 pounds each, and a four-year-old with a record of over 22 pounds.

The third and four animals tested were junior two-year-olds, and granddaughters of Jessie Veeman A, A. R. O., 2625, the famous old cow of which your readers have heard so much.

Hygeia Veeman Hengerveld DeKol 85483 was not put on test until ninety-eight days after calving, but at that time produced 242.3 lbs. of milk, and 9.86 lbs. of butter in seven days her highest fat test being 5 per cent. This heifer is beautifully marked and an excellent individual, and is a direct cross of the DeKol 2d and Jessie Veeman families, two of the most noted of the breed, her sire

being the best son of DeKol 2d's Butter Boy 3d, with sixty-six A. R. O. daughters and twenty-one proven sons—or sons that have sired official record cows—and her dam, Jessie Veeman Hengerveld, A. R. O., 2042, the largest record daughter of Jessie Veeman A. The latter has been termed by experienced judges "the finest type of dairy cow now living, and won first prize and championship at New York State Fair in 1903, which is held annually in Syracuse, the "home" of the Holstein breed. In 1905, Jessie Veeman Hengerveld, with three of her sisters, won the first prize as "produce of cow" at New York State Fair, and in 1906 first prize and championship at Roanoke. While it would please me to do so, yet it would take too much space to give more than these few facts in the remarkable breeding of this young animal.

Hygeia Milla Veeman DeKol 88691, although forty-nine days had elapsed since calving before her test began, and her age being only one and a half months over two years, yet she gave 260.8 pounds of milk, 10.38 pounds of butter in seven days, her highest test being 4.5 per cent. fat. She is also a daughter of DeKol 2d's Butter Boy 3d, and is from Jessie Veeman DeKol, the only one of the seven daughters of Jessie Veeman A, all members of Hygeia Herd, which has not yet been officially tested. She will no doubt make a creditable production at her next freshening, however, which will give Jessie Veeman A a record in the particular of being the only living cow with seven living A. R. O. daughters. But two other Holstein cows have ever equaled Jessie Veeman A in this particular.

Albemarle Co., Va.

W. F. CARTER, JR.

THE BEEF BREEDS AND MILK PRODUCTION.

Editor Southern Planter:

I would like to state that my reference to Mr. French in the January issue of The Planter was in a most friendly spirit, and that, contrary to his supposition, I have been quite familiar with his writings, both in The Planter and in the Progressive Farmer. I will say frankly that he has given Southern farmers much good advice, and that his work is much to be commended. However, I think that this is all the more reason why he should be careful in his statements and not mislead his readers. For instance, I will leave it to anybody if the words "common frosted fall pasture" sound anything like "timothy, red top, and sapling clover." I did not suppose for a moment that Mr. French was pasturing his cow on the hen's nest grass (whatever that may be), for I believe him to be a truthful man, and it would have been impossible for his cow to be doing as well as he stated unless well cared for. It struck me that the way he described his pasture did not sound just right and that, with the general tenor of the article, led me to say that Mr. French evidently wrote hastily.

Now, I think Mr. French's article in the February Planter reads much better. I cannot see anything to criticize in this except his hint at my ignorance,

which I think is uncalled for, as I am a stranger to him, and he really does not know that I am an ignorant, though, to be sure, I am not denying the fact.

In regard to the original bone of contention, as to the Aberdeen Angus cows as milkers, I would like to call attention to the fact that the most famous of all the grand champions of the International Stock Show of Chicago the steer, Advance, bred by B. R. Pierce, and Son of Illinois, never had a nurse cow. Also, that the famous champion carloads of fat steers (which are usually of Angus breeding) are raised under practical farm conditions, and must come from mighty good milking cows. The mere fact of showmen using nurse cows does not prove anything against a breed, because many Red Polled breeders use these nurses, and Red Polls are generally admitted to be fine milkers.

Referring again to Mr. French, I remember that Wing, of The Breeder's Gazette, once paid him a nice compliment on the quality of his cattle. I want to say that I have nothing but the friendliest feelings for all fellow-cattlemen, especially the breeders of beef cattle, and, more particularly still, of black skins.

But should any of these friends at any time publish anything which, in my judgment, is overdrawn or in any way liable to mislead anybody as to the truth in regard to beef cattle, I shall feel it my duty, and it shall be my pleasure to state the truth as I see it.

Gloucester Co., Va.

N. S. HOPKINS.

HOW TO MAKE FARMING PROFITABLE.

Editor Southern Planter:

I was pleased last week when a friend, a neighboring farmer, said: "I never saw the Lynnwood Farm look better than it does now, and it has always been noted for its fertility." I replied that it could not be otherwise when nothing in the way of roughage or grain was sold, except in live stock, and every hoof of stock (from seventy-five to one hundred head) was kept on the farm and grain fed during every winter month, and many during the other months of the year. I use a one hundred bushel manure spreader and let no manure fire or mould in the barn yards, and have also commenced the use of lime, one ton per acre. Now, if good land farmed in this manner and not plowed wet will not grow bean stalks as large as the one Jack-the-Giant-Killer climbed, it is not the fault of the farmer. I believe the United States cannot show better land anywhere.

Any worn-out land well stocked with live stock properly fed and the manure properly and regularly applied will eventually produce any crop. I do not claim to be even an ordinary farmer, but I can redeem worn-out land by the use of lime, cowpeas, German clover and live stock, and after the use of these there will be no trouble in getting any of the grasses to grow, and when red clover becomes indigenous to the soil no better foundation can be laid for successful cropping.

I often wonder when I get inquiries from Eastern and Southern Virginians and North Carolinians for prices on "Percheron mares from 1,250 to 1,350 pounds in weight" what they could do with a hundred bushel manure spreader loaded with heavy, wet, half-rotted manure, except to do as the little ten-year-old boy does

when he takes hold of a wheelbarrow loaded with brick. I did see a boy of this age move the bricks once, for after much struggling he managed to turn the barrow over without moving the wheel. That is more than a team of four light-weight horses could do with the manure spreader.

My regular four-horse team of mares, the ones used most, averages 1,975 pounds, not fat, but in work-horse order. Next four-horse team 1,634 pounds, and the lightest, which includes a two-year-old, averages 1,545 pounds. These figures are given for two reasons, first to show the numerous readers of The Planter that they can buy no pony Percherons here, and also to show your readers that the favorite team of mares is the heaviest. Armour's world-wide-known team of six weigh over a ton on the average, and lots of farmers have never ridden behind a team that moves as fast at the trot.

Now, Mr. Editor, don't for a moment imagine that I am trying to boom the Percheron as a roadster, but while the above is literally true, I do not think the Percheron anything but a draft horse.

I heard two Rockingham farmers say last week that the Southern Planter had all of the other farm journals "beaten to a frazzle." I was not one of the two mentioned, but as I advertise only regularly in The Planter my sentiments are generally understood.

Rockingham Co., Va.

JOHN F. LEWIS.

HOG CHOLERA.

The Kansas Experiment Station has recently conducted experiments in the use of horse serum vaccine on a number of herds of hogs and reports as follows:

A "six-hour horse serum" vaccine which, after careful tests at the Station, was used in twenty-six herds of hogs. In eleven of these herds the experimental vaccine appeared to produce the disease. In most instances the disease appeared in a mild form, but in a few cases acute hog cholera was present. Of the total number of vaccinated hogs 7.1 per cent. gave evidence of contracting the disease from the vaccine. With almost no exceptions these were corn fed hogs. Nearly all of these eleven herds were in close proximity to hog cholera at the time of vaccination; therefore, in some cases, the disease may have gained access at the time of vaccination.

In eight of the total twenty herds, hog cholera existed at the time of vaccination. In these herds an average of 54.8 per cent. of the vaccinated hogs remained healthy and 60.7 per cent. of the unvaccinated hogs died. In one herd none of the twenty-four vaccinated hogs showed symptoms of the disease, while 51 per cent. of the unvaccinated animals became sick and 20 per cent. of them died.

On December 24, 1908, a herd of 268 hogs in Dallas, Texas, showed symptoms of hog cholera. During that morning three of the animals died and on that day 125 of the hogs were vaccinated with six-hour horse serum vaccine. One hundred and forty animals were left unvaccinated. On January 26, 1909, the Station received a message stating that two-thirds of the vaccinated hogs in this herd were alive and that practically all of the unvaccinated animals were dead.

SALES FROM LYNNWOOD STOCK FARM.

Mr. John F. Lewis, of Lynnwood Stock Farm, Rockingham county, Virginia, writes us that he has sold to Mr. Jonathan Herring, of Rockbridge county, Virginia, the Percheron stallion, Lafayette, four years old, Melissa, a six year old mare, and Belle, a five year old mare. Mr. Herring also bought an eight months old Shorthorn bull calf out of a daughter of Lord Lavender. The stallion weighed 1,830 pounds, and mares 1,740 and 1,725 pounds each. Mr. Herring is the owner of another Percheron stallion, which he bought from Mr. Lewis some years ago. We congratulate Mr. Lewis on these sales and Mr. Herring on the purchases. Every such purchase tends to the improvement of the stock in the section in which it is located and increases the average value of the stock in that section. Heavier horses and bigger and better cattle are what are needed all over the State to make farming more profitable.

DAIRYING THAT RETURNS \$59 TO \$98 PER ACRE.

At the recent annual meeting of the Illinois Dairyman, Professor Wilbur J. Fraser, Chief in Dairy Husbandry, University of Illinois, explained the first year's results on a twenty-acre farm started by him at the University to demonstrate how much can be produced per acre by good cows on feed raised wholly on that farm. Grade cows were bought and an average of twelve kept on the place; there was no changing of cows or selecting from pure-bred herds to artificially increase the production. The year's results are:

Pounds milk per acre, 5,952; pounds butterfat per acre, 192. Value of product per acre in different markets: Condensing factories, at \$1.39 per 100 pounds, \$82.73; shipped to Chicago, at (average) \$1.57 1-3, \$93.64; shipped to special agent, at \$1.64, \$97.61; local creameries, fat at 27 cents per pound, \$51.84; and 4,960 pounds skim-milk at 15 cents per 100 pounds, \$7.44; total, \$59.28; butter on farm, at (average) 32½ cents (equals 38 cents for fat), \$72.96; and \$7.44 for skim-milk; total, \$80.40.

These returns per acre are about three times as much as those of our best farm dairies, and they show the possibilities. The prices named are not fictitious. The seven cents extra has been secured from a Chicago dealer by an Illinois farmer, solely because better care makes this milk superior and a large uniform supply is assured, and this extra seven cents means more than \$800 per year to that dairyman. The butter price is that actually secured by a small dairyman who delivers to private customers in Freeport.

The Feed and Feeding.

There is no pasturing; soiling crops are fed; no feed is bought. The biggest problem was to buy cows good enough; they cost about \$90 and some produced over 10,000 pounds of milk.

The yields per acre were: Corn, 76.46 bushels; silage, 24,500 pounds; alfalfa, 7,679 pounds. Every farmer can raise his own feed. Certain incidents of the first year prevent an absolute statement of the cost of labor, but counting a hand at \$25 a month, extra work at 12½ cents an hour, the cost of a horse, 6¼ cents per hour.

the labor is not far from \$25 per acre for the year. The only thing purchased was straw for bedding, \$5 per acre. Taking \$30 from each of the stated returns per acre, the minimum profit is seen to be close to \$30 per acre, while the maximum is much more. There are wonderful opportunities here in dairying if it is done right. With these cows there will be ten or twelve tons of manure per acre; this is permanent farming; it is not robbing the soil.

Speaking of his summer inspection of European dairies, Professor Fraser said that from the milk production standpoint there was not a country in the world he had visited which has the natural advantages we have here.

Mr. J. P. Mason, of Elgin, gave a fine comparison. A neighbor on 120 acres, hiring two men, produced two to four cans of milk a day, and complained that dairying didn't pay. A young German of modern ideas bought this farm and now has sixty-four or sixty-five good cows; and is producing thirty cans of milk per day; his milk brought \$840 in December and will bring more this month. Four men do the milking. No complaint now that dairying doesn't pay. There are seventy-five tons of the best fertilizer to go out on that 120 acres.

If we dairy right we can make it pay on land worth \$300 to \$500 per acre. J. P. Mason produced 12,000 cans of milk the last year. W. B. Rundle told of Devonshire cream and a herd that made \$10 per cow per month producing it. Mr. Mason said that for four months last winter one of his herds, about fifty cows, returned him \$15 per month, and 20 per cent. of the herd had been giving milk for a year.—Hoard's Dairyman.

The cows often make trouble at this season of the year with lumpy or stringy milk. A good treatment is as follows: First, give a thorough purge, say a pound of Glaubers' salts. When it has ceased to act, give half an ounce of nitre and thirty drops of aconite twice a day for two days, or longer, if not cured.

A choked cow may be relieved by tying a stick in her mouth to hold it open for a while. Her effort to dislodge it will start the obstruction in the throat.

The best preventive of garget is clean, careful milking and a vigorous rubbing and kneading of the affected parts of the udder at the first sign of trouble. Three or four days of such treatment will usually ward off the disease.

As the German proverb says: "The manure pile is the farmer's bank," yet it does not receive the care and attention it deserves by farmers generally, though through no other agency can the farm be so quickly improved in appearance, and profits so readily increased, as by proper application of manure, accumulated by the diligence of the up-to-date farmer. "A man is known by the place he keeps"; therefore, when you pass a poor-looking farm you can conclude that the owner pays little attention to his manure pile.

The Poultry Yard.

POULTRY NOTES.

What I said in the Notes of last month in regard to incubators must have "pinched" some of the "cheap John" affairs, from the tone of several letters received. I took one of these "big talk" letters out into the hen yard and called a meeting of the "House Committee" on criminal libel, and read it very carefully to the full committee. It was promptly referred to the Chairman of the Committee, "Big Bill." He retired to his high perch and considered the temperature and humidity of the air contained therein. After deliberating for fully sixty seconds he rendered his decision. Here it is: "The temperature of this simoon when it started was 600 degrees and the humidity three per cent., but it has all been dissipated and strikes us as a gentle zephyr. You may say for me and the gentle members of my Committee that any ten members of my Committee can hatch more and better chicks than any kerosene lamp imitation that ever tried the trick." All the hens gave hearty support to the Chairman's decision, and cackled their full approval of his wisdom. "Big Bill" was hatched and brooded by the kerosene route, and here is his family tree. Number of eggs put in the incubator, 240; number infertile, 20; number of chicks hatched, 96; chicks dead in the shell 124; chicks died first week, 40; killed by lamp fumes, 42; lived to broiler size, 14. Eight of these were pullets and members of the Committee, and five cockerels went to tickle the palates of the aristocracy in Washington, D. C. How many readers of these Notes will say "that was just about my luck?"

This is the month to hatch the October and November layers. "Big Bill" is right when he says that ten good hens will hatch and raise more good chicks for the average farmer than any incubator. If I simply wanted to renew a flock of seventy-five to one hundred hens I would trust it all to hens. Where one wants to raise several thousand it is necessary to use the machines. To buy incubators and brooders for a small flock is a waste of money. To buy and use incubators profitably one must calculate to use them at least four months in the year. You must be prepared for disappointments all along the line. If I had been warned in advance I would have had less loss and been spared many disappointments. One among my first ventures with artificial incubators was with high-priced eggs. I was that shade of green peculiar to a cabbage patch. I paid \$15 per 100 for 240 eggs to fill the machine. It was one of the kind that "hatched every fertile egg." I set it in a cellar and managed it according to directions. I had brooder room ready for 200 chicks. The directions said "warm the brooder thoroughly a few days in advance of the hatch." I must have had it too far in advance for the hatch never overtook it. Not a single peep ever came from that \$36 worth of eggs. One man writes me thus: "No man with an ounce of brains will denounce incubators as you have done." I really believe that I have several pounds of brains and I believe, too, that a fair proportion is in the upper cranial region. Did I denounce incubators? No. I did denounce, and

always will denounce, the great big, improbable, impossible claims made by many of the incubator manufacturers. I have given much time and study to artificial incubation and know that an incubator to hatch a good per cent. of the hatchable eggs must be well made of good material and must be more than a mere box on legs with a lamp under it.

The 140 hens that have the run of the new yard where the tall broomstraw was, have it pulverized to a frazzle. They work it over from ten to twenty times daily and every spear of green that shows is promptly dug up by the roots. This flock has always had free range until I moved them to this yard and they cannot forget the freedom of former days. I feed them a variety of grains and seeds, meat and bone, water and grit, charcoal and lime, and they are laying splendidly, but they are looking for something more dear to the heart of a leghorn than feed and water—freedom and liberty.

The pen of White Leghorns are holding their record up to eighteen eggs per day. Four days in succession every hen and pullet in the pen laid an egg. These twenty hens and pullets were selected by applying the "standard type" form only and the result so far has been very satisfactory. It will be very interesting to know exactly how many eggs they will lay from January 1st to December 21st. I intend to keep them in the house 10x30 feet the entire year and keep an accurate record of their work.

My first hatch came off February 17th. One hundred and eighty eggs gave me 168 chicks. Sickness in my family prevented me from giving the personal attention so necessary to success. However, I am satisfied with this number at this time. I am reasonably sure of fresh eggs for Thanksgiving. The pullets from this hatch will begin to lay in July. I will have another hatch come off February 27th. During March I hope to get at least 1,000 out of the shells. I am constantly in receipt of letters asking advice about operating incubators. I wish to repeat what I have written many times in regard to this matter. I know no way to prevent chicks dying in the shell. I lose from five to fifteen per cent. in this way in every type of machine. It is with the hope of perfecting a type of incubator that will overcome this trouble and loss that I am investigating every avenue and phase of the process of artificial incubation. There must be a radical departure from the present type of machines to effect this end. I am operating hot water and hot air machines in the same room, all conditions identical, and have about the same per cent. of loss in both systems. Much depends upon the eggs and care, but this does not answer the question. With the best eggs obtainable, the best oil, the best care, many chicks fail to come out. Last year I took forty-five eggs out of one incubator on the eighteenth day and put them under hens and they hatched every egg. There were 145 eggs left in the machine to the end of the hatch and twenty-eight of these failed to hatch and every one had a fully developed chick in it the morning of the twenty-second day. Many people think it unprofitable to hatch chicks.

when only about 50 per cent. come out, but I think differently. We cannot get hens to set at this time of year. We could not get hens enough to hatch chicks by the thousand. We can get all the chicks we want if we incubate enough eggs. All that is wrong about the incubator business is the misrepresentations of many of the men who make and sell them. Where one really wants to hatch chicks in incubators, the best advice that I can give is about as follows:

Get a medium sized machine of some standard type, pay cash for it and do not hope or expect the agent or manufacturer to take it back if you fail to make a good hatch. They will not do it, as a rule. Last year I sold an incubator to a party and he failed to hatch a chick in it. He asked me to take it off his hands and refund the money. I sent his letter to the manufacturer and in return received this reply: "As regards the particular case of Mr. —, will write him a letter direct and I think we will curl his hair to such an extent that he will be a little more liberal if he isn't thoroughly convinced that it is him or his eggs. You may expect further trouble if we do not quarantine this brother. We will not take back any more incubators. If he has any complaint to make, make it to us, reporting the facts, of the case, how many eggs they started with, how many were infertile, how many times each day they turned the eggs, the average temperature, the lowest temperature, the highest temperature, how many chicks hatched, how many eggs were fertile and did not hatch, when did they commence pipping the shell, the nineteenth day, the twentieth day, or the twenty-first day. These fellows that make failures are usually caught in answering the above list of questions." I quote this letter to show how much the guarantee is worth. I endorsed the printed guarantee to this customer and, in order to make good, paid him back his money and took the machine. The fact was the machine was as good as any of the medium priced machines, but the guarantee was too broad. No machine will hatch every good egg every time. Not by a long way. No man can make them do so. If I get 500 good chicks from 1,000 eggs I am well satisfied. We cannot grow 125 bushels of corn every year on every acre yet it can be done on extra good soil in a good season, yet we are satisfied with less than fifty bushels, and plant again next year. Why! Because it is the best and only thing we can do. So it is with incubators.

CAL HUSSELMAN.

MARKETING EGGS.

Editor Southern Planter:

Ever since I began urging your readers to co-operate in selling first-class poultry through the Southern Table Poultry Club I have been receiving inquiries as to how to find a market for strictly first-class eggs at something above market prices. Mr. Husselman has been appealed to in the same way, and several months ago I told your readers that in order to secure and hold a trade at anything above quotation prices in a Northern city it would be necessary to supply a comparatively large number and with great regularity.

This, I suppose, is correct when consignment is made to a commission merchant who in turn must sell to deal-

ers or to hotels or other wholesale consumers. In Washington, however, there are some retailers, some lunch rooms and even some hotels which prefer to secure a part, if not all, of their supply directly from the producers and are willing to do business with persons in whom they have confidence if they can ship only one case per week. In these contracts or agreements the producer gets the top wholesale quotations and saves commission, and the premium, if any, which he gets above



First Prize "Ringlet" Banded Plymouth Rock cockerel, owned by Leslie H. McCue, Afton, Va.

top quotations is governed by the superiority of the eggs which he ships and the class of trade which is being supplied.

For instance, one of my friends has telephone connection with the city and supplies strictly fresh, clean, white eggs to one of the most fashionable hotels. They are sent in by trolley twice per week, or oftener, if the hotel rings up and claims to be in particular distress. These eggs leave the farm soon after daylight, and about 8 A. M. can be served soft-boiled to the guests. In this case the price is fixed by the month and is based on the highest retail price. In other cases, lunch rooms are willing to pay approximately retail prices for eggs by the case if they are produced, prepared and handled in such a way as to justify it. Hospital contracts are sometimes good, but are likely to call for a minimum supply, which must be furnished weekly all the year, and few producers can guarantee any fixed number during late fall and early winter months.

What, then, must a shipper do in order that his eggs may be worth more than quotation prices? He must make them show at a glance that they have received a degree of care not bestowed on other lots around them.

The Center Market in Washington is one of the interesting places of the city. It is one of the best equipped retail market buildings in the country. Here stalls dealing in similar lines are grouped together in long rows with broad aisles and no partitions between stalls, only narrow passages. By this arrangement a customer may

stand in one spot and see perhaps three hundred dozen eggs unpacked and in sight on the benches around him. Probably every egg in sight is fresh. How is one of these dealers to get more for his eggs than his competitors do for theirs? Simply by having a supply which by its uniformity, size and cleanliness catches and holds the attention of the customer and causes her to remark: "Oh, what a beautiful lot of eggs. How much are they?" Now, this dealer can get a special price for these eggs, and since he cannot get them from the average shipper he will pay something over market price to keep his hold on this supply and will take as many as he can get and will be glad to get the few which the shipper can supply in the short season.

The advantage to the producer will increase with time. If a dealer has such a trade established, remember you did not help him get it, and some other shipper has first claim on his best returns. If a trade is to be built up or increased by reason of your supply, remember that this cannot be done in a week or month.

If by taking all possible pains you can get a bonus of one cent per dozen at the start, you should be willing to keep it up until your dealer knows what he can depend on from you, and then if your margin over the market price is not increased ask him why it is that two cents worth of time and care spent in washing and grading your eggs only adds one cent to the price.

Now, what care is necessary in order that our eggs may be really worth a special price? I will give some of the more important of those bearing on the quality.

First, the eggs must be gathered in the evening of each day, so that no egg can by any possibility be under a hen all night in case one should become broody and go into a nest box instead of onto the perch at night.

Second, no eggs, either fresh or spoiled, should be left for nest-eggs. Use only China nest-eggs, or teach the hens to lay without any, as mine do. I have not used a nest-egg of any kind for years. As sure as you use spoiled eggs for this purpose just so sure will a mistake be made some day to the ruin of your reputation.

Third, never ship an egg which has been found in a "new nest." Children measure their triumph by the number of eggs which a new nest contains, and they should be rewarded by having eggs in their favorite style until all of those found have been used. It will not do to test them in water, or look through them at the sun and pronounce them "good." Everybody ships "good" eggs—you are supposed to ship fancy eggs. Quotations are for "good" eggs—you are not satisfied with quotation prices.

Fourth, keep eggs in open boxes or baskets where they will have plenty of air to keep them healthy if they were all hatched out and peeping. A fresh egg will deteriorate in a dark, damp cellar, or in a tight box.

Now, for appearance, which is almost as important as quality, keep one breed only if possible. If not, then try to grade your eggs in packing so that those of one color will be in one side of the crate and those different in the other. Do not expect the dealer in a crowded market stall with customers waiting to be served to do the sorting, which you could have done so much more easily when packing. Above all things, have the eggs

clean. This is absolutely essential to the best results, especially at this season, when the market will soon be flooded with eggs and prices will run low for a time.

What is a clean egg? It is an egg the shell of which is just as free from dirt or stain as is the dish upon which it is served. Nothing short of this will fully satisfy the very best paying trade. There is not one case of eggs in five hundred which approaches this standard. Such eggs can be obtained in various ways, but washing with clean water or fine sand on a damp cloth will usually be necessary. I would not use soap. If some fresh eggs have stains which cannot be wholly removed, pack them together in one layer on top of one side of the crate, do not hide or mix them with the rest.

One of my neighbors has all nests in a back room of his henhouse with floor deeply bedded with loose straw so that the hens partly clean their feet before reaching their nests. Others gather the eggs several times a day, which helps greatly, yet others are experimenting with automatic nests, which take the eggs out of reach as soon as laid, thus preventing both soiling and egg-eating. The means adopted will vary with conditions on each farm.

There is a prejudice against washing eggs which are to be used for hatching, and as the production of strong breeding stock and eggs for hatching is the important feature of my poultry work, I feel that I can better afford to take a little extra trouble to keep eggs clean than to wash them. However, as my fowls are all pure Barred Plymouth Rocks, they lay dark eggs, which do not show slight soiling as do Leghorn eggs. During winter all fresh eggs bring good prices and, as low price comes on, the demand for incubating purposes increases. For years we have not been able to supply this demand. This season we hope to be ready for all orders. This is a good field for raisers of first-class, pure-bred farm poultry. Already inquiries for Plymouth Rock eggs in 1,000 lots have reached me from both Connecticut and Rhode Island, but small orders have the right of way.

Vienna, Fairfax Co., Va.

W. A. SHERMAN.

A CONTRIBUTION TO THE ARTIFICIAL INCUBATION QUESTION.

Editor Southern Planter:

The writer hesitates to jump into friend Husselman's department, for he knows that he must be considered as only a novice compared to this Nestor of poultry, politics and pleasantries, but he has had a "fist full of experience," as Uncle Remus would say, during the past two years, and he wants to share his lessons with others who may be interested. Wanting to learn something about hatching chickens that a hen did not know he got a number of incubator books, and he learned that men differed about what an artificial hen should do and no one was willing to admit that a real hen did right, unless she did just what some particular machine would do. One man asserted that moisture had no influence on incubation and cited the fact that a hen sitting in a mud puddle would hatch just as well as a hen on dry hay, unless she caught cold and died of pneumonia before her time was up. Another could show that this was the only necessary thing, that not even did the eggs have

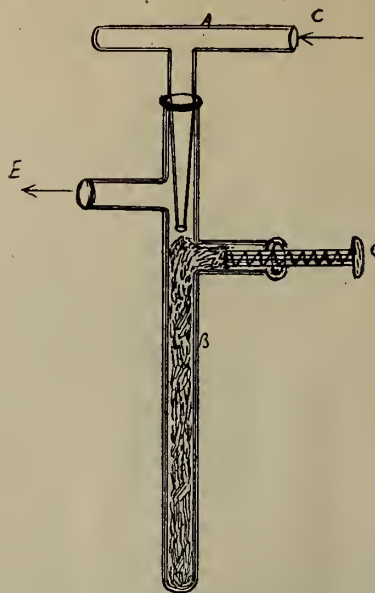
to be warm and occasionally they could be run up to almost cooking temperature, if it was not kept long enough at this temperature to singe the feathers on the chicks in the shell. Another told how fresh air was a bad thing, as this would keep the egg shells so hard that the chicks could not drill holes through the shells, and insisted upon keeping the atmosphere charged with carbon dioxide, in order that most of the carbonate of lime in the shell should be dissolved and thus let the chicken out, probably like some moth escapes from his cocoon by dissolving the crust of calcareous stuff that encloses him. To prove his point, chemical experiments were cited to show how carbonated water will dissolve egg shell, a fact known to the merest novice in chemistry. Still another described the panting chickens in a stuffy incubator, as they struggled for breath until tears would almost stand in their eyes at the thought of cruel men thus suffocating poor innocent little chicks. The writer learned so much that he was soon aware that he knew nothing and fell back on his old hens that, without any particular knowledge of science, did the work with an ease, exactness and success that should make any incubator maker green with envy. He had, however, a breed of chickens that refused to sit before March, and it was necessary to have chickens hatched before that time so, not knowing which incubator to buy, he determined to build one of his own just for the fun of the thing and see what he could learn about incubation. While he was planning a hundred egg outfit, he picked up an old copper box, devised a simple regulator for gas and put twenty eggs in this box and, heating it under the bottom, hatched twelve chickens, which could not be commended for their beauty, as some had hair instead of feathers, while others walked in circles instead of straight lines, and other preferred lying down to standing up. They were, however, chickens, and came out of eggs, though some might have doubted it. The wonder remains why any chickens came out at all under these conditions. It was evident first of all that the hen's plan of sitting on top of the eggs instead of on the other side of them had some reason in it.

After getting an incubator built to be heated with hot water, and it must be remarked that the experimenter never had the least knack about doing carpenter's work, so the job was not a neat one at all, and was made with just a single wall of tongued and grooved pine, not poplar. Incubator men build incubators with three walls and argue, don't they, that they do this because the hen has three walls. I believe that the hen is a triploblastic animal, so the biologist knows that she has three walls. I don't know how these incubator men found it out. Oh, I believe some biologists these days are incubator men.

Well, we won't discuss the construction of this incubator, for it is too simple for a long discussion. I wish you could see the glass door on this machine. You would laugh. A carpenter would pity the architect.

Gas being convenient, it was thought best to heat the tank with a simple Bunsen burner, and so a very simple pressure regulator and heat regulator was attached. One regulated the pressure, or kept it constant, while the second regulated the heat. This regulator is shown

in the drawing. The glass tube "B" is filled with mercury, as indicated, and the wood screw "C" passes through a wooden stopper made tight with sealing wax. "A" is a T-shaped stopper with ground surface, where it fits into mouth of the tube "B." Gas enters at "O" and leaves at "E." Mercury is set with screw "C" so as to



give a flame that will produce a given temperature. Tube "B" being in egg chamber, the contraction and expansion of the mercury will keep the flame right for the temperature chosen, provided the gas pressure is constant, and this can be secured with a similar regulator. To state that on the last run the temperature did not vary over one-quarter of a degree for sixteen days and the lamp was not touched in that time, nor was the regulator changed, should satisfy any one that this regulator regulates and it is so simple it cannot help working.

Well, the first hatch was a very poor one, only about fifty per cent. and several crippled and deformed chickens. The eggs had been weighed on a delicate chemical balance to determine loss in weight during incubation for eighteen days. The average for three eggs gave a loss of a little over 17 per cent. No moisture was supplied at all, thinking that the basement was damp enough to supply sufficient moisture with the air that was continually drawn through. On the second trial a hen was placed on a nest right beside the incubator and three eggs from the hen and three from the incubator were weighed carefully through eighteen days. The loss of weight for the hen's eggs was 10.9 per cent., 11.1 per cent., and 15.3 per cent. The first two eggs hatched the last did not hatch and was an egg of very transparent shell. The loss of the three eggs from the incubator here in the basement was 16.2 per cent., 16.8 per cent., and 17.5 per cent. Only one of these eggs hatched. It appeared from this that the loss of moisture from the eggs under the hen was only 11 per cent. As the last hatch with incubator was still bad, not over 60 per cent., it was thought best to supply moisture by adding cups of water with sponges, until the moisture was sufficient to keep the eggs about the same weight as under the

hen. This was easily determined, and in the last hatches the loss in moisture has ranged between 10.8 per cent. and 12.0 per cent., which should be near enough to the standard, and the writer is convinced that the moisture business is important, as the hatch was pushed up at once to 75 per cent., which is not bad for such an incubator as this one, but there remained another question which has been solved in a rather peculiar manner. How could the great loss from death in the shell during the last two days be avoided? Frequently, from ten to twelve chicks would die after the shells were pecked. One day the writer was looking at the thirty or forty chicks in the nursery drawer right under the egg drawer and began to wonder what would be the effect of this mass of little oxygen inhalers upon the air that came into the incubator and passed through them to the egg drawer above. It so happened that on that very night the writer went to a large hall in Atlanta to hear Campbell Morgan preach. There were about four thousand people in a hall ventilated only at windows, and the conditions of the incubator were almost exactly duplicated—the three thousand people on the lower floor got the air first, used it, and then passed it up to us in the gallery. One or two people collapsed during the evening and the writer was so weak he could hardly stand alone. His weakness was depressing. He tried to imagine himself in a close egg shell compelled to struggle out or die. He felt sure of his fate and he knew what had caused disaster in his incubator, so he went to work on a plan, which was intended to bring the chickens entirely out of the incubator after being hatched without opening the machine. By means of a spring bottom in the nursery drawer, the chickens drop through into a chute which brings them quickly and safely into a small nursery placed to one side of the incubator and heated by another lamp. Here the chickens have plenty of fresh air and are never chilled as they may sometimes be in a nursery drawer and a glass top enables one to watch the little chaps. It certainly entertains the children and it is fascinating to see the little chicks come sliding out into the nursery, often before they are dry. The incubator is freed at once from these contaminants of the atmosphere in which the remaining ones must struggle to get free, needing all the fresh oxygen they can get to supply the energy they need for this critical moment. This is good sense. It certainly has worked. Two hatches since adding this attachment gave over 80 per cent. One was 86 per cent., which is probably as high as one can go with this outfit. It has certainly given an opportunity to study incubation.

Georgia.

H. B. ARBUCKLE.

A SIMPLE, CONVENIENT POULTRY HOUSE.

After considerable study I devised a plan by which to construct a practical building for my farm poultry, and the building has now been in use four years. It was intended for eighty Plymouth Rock chickens, and has given entire satisfaction.

Since we so seldom see a satisfactory farm poultry-house, my plan may be the means of suggesting ideas to those who are fond of nice eggs, and fine broilers. The building faces the South and the roof slopes towards the North. It is fourteen feet long, eight feet high, on the south side, six feet high on the north side

and eight feet wide. The dirt floor affords no place for rats and mice to hide. The door, which is in the east end is two feet wide, and four feet high; there are two feet of siding below the door, which makes six feet from the ground to the top of the door, thus affording ample space for one to go into the building without stooping. At the same time small chickens cannot get out of the house when the door is open. The outside of the building is made of ordinary storm siding sawed from rough timber on the farm. The framing consists of ordinary "two-by-four" material except the sills which are "four by six." These sills are placed one foot above the ground and rest on locust posts sunk into the ground. The siding comes down even with the ground, thus keeping out small animals injurious to poultry. On the south side are placed two windows for ventilation, and also to let in the early morning sunlight. Wire netting is placed over the windows, which are left open, except on stormy nights, when they are shut by sliding window sash. On the inside, half the building is taken up by perches and a platform beneath the perches to catch the droppings. This platform is placed three feet above the ground, and the perches are placed one and a half feet above the platform. The platform and perches are placed on the north side and east end. A row of boxes for nests is placed along the south side, three feet above the ground. By this arrangement the entire floor space can be utilized for scratching room. The droppings are never in the way, and a man can easily stand up in the house and clean it any time. There are four locust posts placed along the center of the building reaching from the ground to the roof. To these are nailed cross pieces of timber, which are also fastened to the sides of the house. The platform rests upon these cross pieces. There is about 500 feet of lumber in the building, and 1,800 shingles. The building was constructed with ordinary farm labor, and cost me about \$10.00. After the building is securely locked at night, I feel sure of finding my poultry there next morning ready for their breakfast.

R. H. PRICE.



A Colony Breeding and Laying House used successfully by R. O. Berger, White Wyandotte Specialist, Richmond, Va. Capacity: twenty breeding or about 35 laying hens.

The Horse.



Class in Horse Judging, Farmers' Short Course, Virginia Polytechnic Institute, Jan. 21, 1909, Dr. J. G. Ferneyhough, State Veterinarian, Burkeville, Va., giving practical instructions.

NOTES.

By W. J. Carter. "Broad Rock."

At a meeting of the Board of Directors of the Virginia State Fair, held at Richmond on February 3d, the Hon. Henry Fairfax was elected President, to succeed Hon. Henry C. Stuart, whose voluntary retirement from the position he had so ably filled since the formation of the Association was much regretted, as his administration of affairs had been fraught with that measure of success befitting a man of Mr. Stuart's broad and liberal ideas. The selection of Mr. Fairfax, however, as the head of Virginia's largest and most important Fair Association is regarded as a most happy one, as he is both popular and widely known, while possessed of fine executive ability.

Formerly State Senator and later a member of the State Corporation Commission, likewise in other positions of trust, Mr. Fairfax has displayed signal ability, whilst as a breeder of hackney horses at Oak Hill Farm, his fine estate near Aldie, in Loudoun county, his success has been so pronounced as to make him prominent on both sides of the Atlantic. Not only an able judge of form in the hackney, but of various other breeds of horses as well, the master of Oak Hill is also partial to live stock interests in general and the stock breeders of Virginia can count upon liberal support in that direction and all others pertaining to the development of agriculture.

With the election of Mr. Fairfax as President of the Virginia State Fair Association, Alfred B. Williams was chosen as First Vice-President, and Samuel Cohen as Second Vice-President, while M. A. Chambers was re-elected Secretary, and Oliver J. Sands, Treasurer. Mark R. Lloyd, who served as Assistant Secretary and General Manager in 1908, will hold the same position again this year. The Board of Directors, in addition to Messrs. Fairfax, Williams, Cohen, Chambers and Sands, includes Henry C. Stuart, E. B. Sydnor, L. O. Miller, J. G. Corley, J. T. Anderson, M. C. Patterson, Legh R. Page, W. J. Carter, R. W. Spillman, C. H. Ratcliffe, and John M. Miller, Jr. The different committees will be appointed by President Fairfax this month, and no time will be lost in taking up various matters of importance. Mr. Fairfax advocated the appointing of an honorary Vice-President from each county in the State, and the gentlemen will be communicated with at

early date, with the object of securing their co-operation and assistance, as it is the earnest desire to have Virginia's largest and most important fair a State institution in all that its name implies, it being recognized that the agricultural interests of our grand Commonwealth are of the greatest importance, and as such ought to be fostered and encouraged in a manner befitting the Virginia State Fair Association, an organization fully capable of exercising a powerful influence for much that is good throughout the Old Dominion.

The dates of the Virginia State Fair for 1909 fall on the week of October 4th to 9th, following right after the Interstate Fair at Trenton, N. J. Most of the live stock exhibitors of live stock there will ship direct to Richmond, as during former years, while quite a number of race horses will accompany the caravan as well. In the matter of prominent Virginia fairs, Roanoke, Lynchburg and Richmond follow in direct succession, while Greensboro Raleigh and other North Carolina fairs come right along after Richmond, thus showing the circuit to be a most attractive one for owners of horses and live stock in general to follow.

The splendid exhibitions of live stock, especially of cattle, have come as little less than a revelation at our Richmond fairs, and the same high standard will be maintained, while strong efforts will be put forth to increase the attractiveness and importance of other departments as well, which, of course, applies to the horses entered for competition in the show ring, as purses and premiums will be increased, with added classes, which is sure to attract the attention of farmers and breeders in general. In passing it may be added, too, that the speed programme—while not the main feature, but certainly very pleasing to numerous attendants—will be handled with impartiality, and made attractive to fanciers of both harness horses and runners, as the liberal purses to be offered bring many good trotters and pacers, while contests on the flat and in the steeplechase events promise to be more interesting even than at our former fairs and race meetings.

In our business columns appears the announcement—and an unusually attractive one, too, it is, of Allendale Farm, Fredericksburg, Va., where the fine young trotting stallion Royal Swell, will make the season of 1909. This

blood-like and elegant son of Bow Bells, 2:19 1-4, and Rachel, 2:08 1-4, by Baron Wilkes, 2:18, is one of the best bred stallions that has been offered for service in Virginia, and his bloodlines are sure to prove attractive to breeders in general. No families in the Trotting Register are more highly valued than those of Bow Bells and Baron Wilkes, whose sons and daughters are breeding on with marked success. Boreal, a son of Bow Bells, got the trotter Boralma, 2:07, and Beauseant, a green pacer, that sold for \$17,500. This same Bow Bells also sired Royal Regent, a champion in the show ring, and one of the greatest runabout horses yet seen. Rachel, the dam of Royal Swell, was a great campaigner, and in the stud she has proven a wonderful producer of speed and race horse quality while her dam, Willis Wilkes, was one of the greatest daughters of George Wilkes, and back of that we find the golden blood of Mambrino Patchen, 58. On application an extended pedigree of Royal Swell may be had of Allendale Farm, and the tabulation is a marvel of richness in producing blood.

Petaurist, the bay stallion, by Peter the Great, 2:07 1-4, out of Telka, by Arion, 2:07 3-4, has wintered finely in the stable of his owner, Joseph Lassiter, at the Southern Stock Yards, Richmond's mammoth sales mart. Petaurist is a blue ribbon winner in the show ring, and also a trotter.

HORSE BREEDING FOR TIDEWATER VIRGINIA.

Editor Southern Planter:

Now, that the season for horse breeding approaches, the farmers of Tidewater Virginia will be considering the best mating for such mares as they may chance to possess, and for their assistance, I will offer some results of a considerable experience. But, first, let me clearly explain that these remarks are intended exclusively for this particular section of country to which I belong, and not for the Piedmont or other counties, of which the soil and climate may create different requirements and conditions. The first difficulty which confronts us, is in the extreme variety of the classes of horses which are used by our people. Anything from the shaggy-legged Shire horse to the Nondescript breed of blended parentage can be seen upon our roads, and we can make no claim to any peculiar breed for our country, so little thought or care has been bestowed upon the selection of animals beyond obtaining some brute which would render the best service at the least cost for its purchase. Most farmers find themselves at the end of a decade or two, in possession of quite a motley collection of horses in which variety has been still further increased by a haphazard system of breeding mares to the most accessible sire, regardless of results. Now, then, the usual principle in the heredity theory that like begets like, must obviously be laid aside in our case, at least for some generations, because, first, we must get some material sufficiently homogeneous to afford some basis of calculation as to what its offspring would be like. Therefore, we must look for the most prepotent influence we can find in the male to be used, hoping that his concentrated qualities may overcome most of the diversities of type belonging to the dam. This con-

centration is more generally found in the Thoroughbred running horse than any other for the simple and obvious reason that it has been cultivated with more care and for the longest time of all the races of horses in the world; and, now, we are speaking generally of the world, and not of some limited locality which may have made a specialty of some local breeds. But here, again, our course is not by any means, all plain sailing. For, among Thoroughbreds there is an enormous variety of type, and the sire we are now recommending for the farmer is not often found. In the State of New York the Breeders' Bureau, put out for farmers, some fifty stallions which bred to about 1,000 mares, produced about 500 foals. These stallions were selected for size, conformation and general quality to improve the breed of horses in the county. Well, the plan had its advocates and its opponents, and both sides advanced some good arguments, and the truth of the result lay, no doubt, between the debaters. But this much was certain: It was a step toward bringing some unity out of chaos, and the next generation produced by the experiment was more easily classified. The horse which, in my opinion, we need as the first step in improving our Tidewater stock is a well shaped, strong, vigorous stallion, not over twelve years old, and not over sixteen hands high, but well boned and muscled, and descended from a family of Thoroughbreds, distinguished for power, stamina, docility and thrift. Such a horse was Doswell's Orion and later Boulwares Bohemian, both horses which did service in this country. I have known colts from both of these horses, which made the best farm horses for regular farm work among a large number. The requirements which are needed in such a horse are not those of a racer. Not the keen, eager, impetuous disposition, essential very often to winners of races, but a much more steady and phlegmatic temperament. As in the Percheron breed, there are said to be two types, the "sanguine" and the "phlegmatic," so among Thoroughbreds, there are families of highly strung, nervous temperament, and those of steady, quiet, unexcitable disposition, just the class of horse which, with the qualities grafted upon the powerful inbred strength and endurance cultivated through so many years and so highly tested, would be best calculated to improve the nondescript stock of our country. It is said that seeing the advantage of such a cross, our Canadian neighbors are advertising largely for Thoroughbred stallions to improve the horses of their northwestern ranches, as well as the farming stock of this country generally. If the plan which has been proposed by prominent horse breeders to adopt the same experiment in Virginia which was done in New York, and place "Thoroughbred stallions" through districts of the State for farmers' use at normal fees, could be carried out, it would be a boon to our people, of inestimable value, provided the right selection was made of the individual horse to be used.

Essex Co., Va.

P. S. HUNTER.

Too much hay at a time is never good for the horse. Better feed a fair ration of hay and a little more grain.

Give the work teams regular exercise and liberal feeding to fit them for the season's work.

Miscellaneous.

THE ALL-ROUND FARMER.

Editor Southern Planter:

It has seemed to me at times as I have been going about among our farmers, that only a small per cent. of them are getting any happiness out of their business. They will talk with us as long as we continue to point out where they may be able to make more dollars. Dollars are necessary, of course, and should be looked after carefully. No one knows this better than the writer who has been obliged to make what he has. But there are other things that it seems to me are even more to be desired, and that will afford the true farmer more real pleasure than the quest for more dollars. How many of us realize that ours is a peculiar business. A real business first, then a science, and then one of the most delightful means of recreation. Thus we have an occupation, that if handled as I believe God intended it should be handled, may answer to every need of the educated, up-to-date, broad-minded man. First, from a business; second, from a scientific; third from an aesthetic standpoint, and it seems such a pity to the writer that so many of our farmers pay attention only to the business side of their occupation, and even fail at times to make the most of even this one part, leaving out of their lives all the broader, better things that may be theirs for the asking only. Our methods are undoubtedly improving, and we hope the time is not far distant when the average farmer will take hold of his work with a zeal born of a love for his business, and not for the few dollars only that he may be able to accumulate. Do you realize, my friends, that ours is the only business that is founded upon the soil itself and, that soil building, being allied with nature itself, is one of the greatest of sciences, and that the scientific farmer who is a soil builder has become a co-worker with nature. Then there is the great work of plant breeding lying right at the door of the farmer. Who will allow his life to so broaden as to cover this branch of his business, a business to which men of great brains have been content to devote their entire lives, and then go to the Great Beyond with the knowledge that the work was only just begun, and what may be said of plant breeding applies with far greater force to the breeding of animals. Do you know that not one in twenty of the animals the farmers of America are handling have been improved at all, are scrubs pure and simple? Well, it is a fact, and if animal breeding—to the end that these millions of scrub animals may give place to animals of improved blood and far greater productive capacity—is not a study worthy of any farmer's brain, pray tell me what would be? The people of the world are progressing; more is asked of a man to-day than was required twenty-five years ago, greater capacity is required of the same sized brain. The farmer must not, and I know will not lag behind. But he will be required to study his business as he has never done before. He will turn his brain loose, and solve these scientific problems that confront him, and will be a better man, more worthy of his great

business because of it. One of the greatest needs of the world to-day is for more practical scientific agriculturists. Our soils have been depleted by years of careless handling, and must be reclaimed if we are to continue to feed the world. Our plants are of inferior productive capacity, and must be bred up until they will pay for first class labor on first class land. Our animals are making not more than two-thirds the returns they might were they of improved type. These are only a few of the matters that are before the farmer of to-day for solution, and the study of which will afford not only profit in dollars, but vast pleasure as well.

But enough of this. I want you, Brother Farmers, to get the boys and girls, and go afield with me, as it is your and their right to see another side of country life. Have you ever seen during all the years that you have been living on the farm that grand old mountain standing back there in all its majesty and grandeur? You have seen it, of course, but have you realized what it meant to you; what an inspiration you might receive, if you would, from this sentinel standing back there in all its rugged beauty, a picture no artist has ever been able to copy, grand, sublime, the everlasting hills, all ours, if we would only be able to see with understanding. Then the clover meadow, with its acres of crimson bloom, and down there in the valley, alongside that saucy little stream, don't you see the pines, with the various shades of green, and almost hidden there are the dogwoods, wild plum and peach, in their bridal robes of bloom? If we walk down there we will hear the bees and humming birds as busy as they can be, and yonder only a little way is the pasture where millions of little plants—responding to the touch of spring air, striving in their silent way to repair the damage old Jack Frost did some weeks ago. The sheep are down there to the right in that sheltered spot, and the lambs—as full of play as ever—are vying with one another for the post of honor, the highest point on that great boulder, where battles of this sort have been waged every returning spring for more than fifty years. But I hear a gentle lowing, and methinks the cow must be just over that little hill, as that call sounds very like the tones of Lady Nosegay, calling to her bold, reckless son. It is as I had suspected, he has gone off with those big bull calves, and is fighting like a Trojan down there by the spring. Well, bulls will be bulls, but my word, isn't he putting up a good fight! Look, how those great muscles of his bulge, how the sod flies, as that big fellow—who ought to be ashamed of himself—sends the little fellow back on the fly. You had better look out, Mr. Big Bull, that old cow has been watching this fuss for some time, and if you don't "tote fair" with that little fellow you will find yourself lying on your back with a bad bump on your stomach, the first thing you know. Mothers can't stand everything.

Let farmers—hard workers though we be—try to listen to the music and see more of the silent beauty all around us. Wealthy city people pay thousands to hear and see

the things that cost the farmer nothing, but an appreciative understanding.

Rockingham Co., N. C.

A. L. FRENCH.

TILE DRAINAGE.

Editor Southern Planter:

It was somewhat of a surprise to me to be informed that the few manufacturers of drain tile in Virginia had closed down for want of orders. Whilst large areas have been drained by this method in Ohio, Indiana, Illinois, and to some extent in New York State, the art does not seem to have "arrived" as yet in Virginia. The most probable cause for such a condition in any section would be a surplus of naturally drained land of equal fertility, and a market value not higher than the total cost of tile-drained land.

Another cause, but I do not like to say that this is the trouble here, would be the lack of practical knowledge as to the classes of lands that can be profitably drained; the details of this system of draining with tiles instead of open ditches, and also as to first cost, future profits and permanency of such results, provided, of course that the work is properly performed.

When applying the first mentioned cause to any given locality it is well to remember that one seldom comes across naturally drained land that can compete for a series of years with properly under-drained land of equal fertility, when it comes to results, covering a series of years, that is, under extremes of drought and excessive rainfall. The chief reason for this is that with proper tile drainage there is an almost permanent water level, or height of wet subsoil, that can be located at the best distance from the surface for the crops, far enough below to allow an ample root depth, and yet placing ample moisture within reach by means of capillary attraction.

The writer has, in some instances, as when the land was to be used for trucking, arranged the mains so that at any time the system can be "plugged," or the drainage stopped over all or part, and a rough sub-irrigation given to the growing crops. Of course, this is not a safe practice unless all conditions of soils, levels or grades and perfect laying of tiles exist. The soil formations that can be profitably drained may generally be classed as follows, and they are placed according to profits.

1. Small wet areas dividing or cutting into cultivated fields. These, even if drained with open ditches are a constant cost and nuisance when working the field, and a seed bed for weeds. Pole, plank, brush, or stone drains are all more costly to construct than tile drains, and soon become useless, unless with unusually heavy grades.

2. Alluvial deposits.—These are often very rich in plant food, that the high water level has kept dormant; and especially when located in the backwater of the overflow which has deposited them. In many instances there is sufficient plant food waiting here to be the means of restoring the fertility to the adjoining hillsides of the farm.

Sometimes there are the cheapest of all to drain, allowing easy quick cutting, and so porous an under-soil that the ditches can be placed far apart; even as low as 730 feet of tile an acre doing perfect work. At the same time the grades, or fall of drains are generally low, and call

for careful work. Then again, in these deposits are found at times nearly all the troubles of the ditches, and certainly the worst of them, quick sands, soft bottoms, caving sides, buried logs, and trying floods of water. I shall never forget one swamp, nearly a mile long, with one in 1,335 all the fall that could be found for the mains. It was pretty nearly every kind of trouble all the time, and the men were certainly ready for their diplomas as experts when through.

3. Heavy clays, or loam underlaid with clay.—In these there is generally straightforward work, but heavy cutting—with good safe fall to the drains—say three in 100, but the distance that a drain will draw is less—usually calling for 1,200 to 1,500 feet of tilling to the acre, so cost may be anywhere from \$35.00 to \$45.00 an acre. It is usually three to four years before the full benefits are secured, and then only after a subsoiling. I have seen great crops of hay, oats and corn on such land that was worthless before drainage, but they want keeping up and liming for best results.

Now, it appears to me that even if the time has not yet quite come for much underdrainage, as an investment, for farm crops, it should at any rate, be a most profitable undertaking for truckers, and these represent many and large interests in Virginia and Eastern North Carolina, and I hope soon to hear of tiles made and for sale in the old State. To begin the good work no material output of cash is called for beyond the buying of the tile. The fall, or any mild time in winter when other work is not pressing, can be well utilized, making a start with even a small wet place on one or two acres, using the regular farm help. Experience will be gained that will lead to tackling larger areas next season.

If there is any active demand for tile drainage in Virginia the tile will soon be for sale, and I should think that the Experiment Station could be persuaded to do a little demonstration work in this line.

The art of tile (or as it was first called "thorough") drainage, originated some 140 years ago in England. The profits were found so certain that under the provisions of the Drainage Commission Acts a farmer had no trouble in borrowing money for this purpose, and had from twenty-nine to thirty-one years to pay back the loan, annual payments of four and a half per cent. clearing off interest and principal by the end of the period. Our (?) paternal government can advance money in million-dollar units for the West to carry water to arid and unsettled lands, but our coast swamps of the East still hold their locked-up riches, and only produce mosquitoes.

GEO. F. WESTON.

North Carolina.

NOTES ON AN OHIO TRIP.

Editor Southern Planter:

At the invitation of the Market Gardeners' Association of Cleveland, Ohio, I recently made my second visit to the City by the Lake to deliver two lectures at their annual meeting and Institute. The meeting was held in the large Pythian Temple in Cleveland on the 11th of February.

The large hall was packed with a very intelligent audience not only from Cleveland, but from Ashtabula, Hudson and other localities in Northern Ohio. I have always

found that at Institutes either for farmers or gardeners the places where men are already making a success in their business are always the places where they are most anxious to learn more.

It is always at the places where the cultivation of the soil is in the most backward state that the growers "know it all" and have nothing to learn and do not come out to the Institutes. But at Cleveland the gardeners are wide awake, more so, in fact, than in most places in the East. There is more winter forcing under glass in the lake towns of Northern Ohio than in almost any other section of the North.

Last fall I had an opportunity to visit the various gardening establishments in the suburbs of Cleveland, and was surprised to note the large capital invested there in glass, for they have dozens of acres in greenhouses mainly devoted during the early part of the winter to the growing of lettuce. They grow exclusively the Grand Rapids lettuce, a loose, curly variety that would not sell at all in our Eastern markets which demand a white-headed lettuce. But, so far as table quality is concerned, I agree with the Western people, and I grow the Grand Rapids for home use, having a cold frame right at my kitchen door, where the cook can get it handily. I think it a great deal more delicate than the head lettuce. But Eastern gardeners, of course, must cater to the demands of their markets and cannot afford to try to teach the people what they should eat.

At the meetings to which I refer the first address was made by Professor Lazenby, of the Ohio University, on "Profitable Crops in the Market Garden," giving his experience in the crops that paid best at the University garden. I followed with a paper on "The Use of Commercial Fertilizers in the Market Garden," a subject that seemed to interest them very much, as they have had little experience with commercial fertilizers, and the questions they piled in after the paper took me nearly an hour to answer.

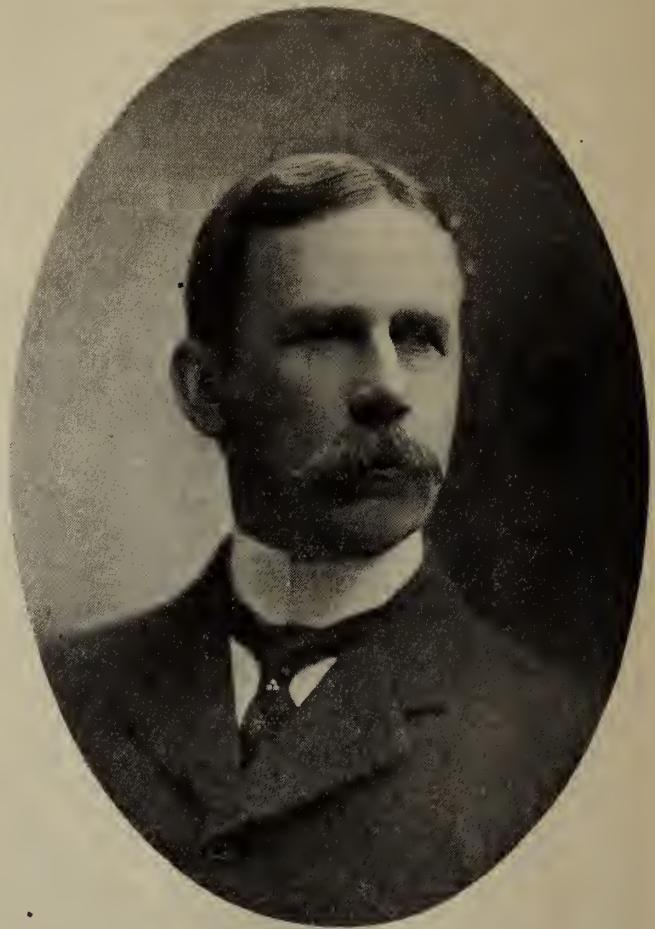
These gardeners have been depending almost entirely on the city manure, and I certainly did not try to discourage the liberal use of this manure, since it is in their case the best means for getting humus increased in their soil, for in working land worth from \$1,000 to \$2,000 per acre, they cannot afford the rotations with legumes that men on cheaper lands can use, but must keep their land hard at work all the time growing something of market value.

They have, however, found that the manure lacks something, and I tried to show that this lack is mainly in the mineral elements, and that by supplementing the manure liberally with phosphoric acid and potash it could be made far more effective. I cited the results attained at their own Experiment Station at Wooster, where an application of but forty pounds of pulverized phosphate rock to a ton of manure nearly trebled the crop made by a ton of untreated manure.

This at once provoked questions about the floats, and I tried to show the importance of the humus created from their manure applications in making the pulverized rock available, and the part that the mineral or ash elements play in the perfection of the crop, stating that the experience of truckers in the South had shown that

neither manure alone nor fertilizers alone would give the best results in the lettuce crop.

One large grower said that he had tried commercial fertilizer high in potash in growing lettuce, and that it seemed to injure the plants. On inquiry I found that he had made large applications and at once set the plants.



Hon. Henry Fairfax, of Loudoun County, who succeeds Hon. H. C. Stuart as President of the Virginia State Fair Association. Mr. Fairfax has always been actively identified with Agricultural interests, being a large farmer and stock breeder. As a member of the Constitutional Convention and of the State Corporation Commission, he was a tower of strength to those interests.

I then cited the experience of a gardener in North Carolina, who one fall sent me some of his lettuce plants that had recently been set and asked what was the matter with them. The leaves were turning red on the edges. I could find no diseases on them, but the roots seemed to be injured. I set them in my frame and they grew off finely. I learned that he had filled the soil with fertilizer containing 10 per cent. of potash from muriate, and at once told him that doubtless the caustic effect of the potash had burnt the roots. He removed the plants and let the rain have a chance at the soil and replanted afterwards and had no further trouble.

I explained to the Cleveland man that the best growers in North Carolina never put fertilizer in the beds before setting the plants, but filled the soil with well rotted manure, and then set the plants, and when well started they apply the fertilizer between the rows and

rake it in lightly, so that the soil absorbs the fertilizer and furnishes it to the plants as needed and danger is avoided.

One man, evidently a farmer or a grower on cheaper lands than the nearby growers use, asked if it was practicable to keep up the fertility of the soil by fertilizers and legume crops plowed under. I told him that it was perfectly practicable to do so, and that the organic matter of the legume crops would certainly take the place of the organic matter in the stable manure, but that the question would be in regard to the profitableness of the method as compared with the feeding of stock and the making of manure. It might pay with the high-priced crops of the market gardener to plow under all the growth of the legume crops, but that in general farming I did not think that it would.

For instance, a farmer has a crop of peas or clover that will make him two tons of hay per acre. That hay certainly has a feeding value of \$10 per ton, and by carefully saving the manure he can recover fully 80 per cent. of its manurial value. Can he afford then to plow under that \$20 worth of feeding value for the sake of the 20 per cent. of manurial value? I think not, and that all the talk about chemicals and legumes without stock feeding is a matter of farm economy that each man must study for himself, and that in the majority of cases it is bad farm economy to bury a valuable food crop as manure direct, for the greater availability of the 80 per cent. recovered would make it worth as much as the whole.

The Cleveland gardeners are now marketing their second crop of lettuce and are pricking out the tomato plants ready to follow the lettuce. There are no benches at all in their greenhouses, but the whole surface is manured and planted. In one house I saw there a whole square acre included under a ridge and furrow roof, with eaves high enough to walk under, and is plowed with a team and plow. The owner said that he had steam pipes running through the soil for the purpose of sterilizing the soil. But he found this a bad thing, for in the sterilization he found that he also destroyed the bacteria of nitrification and made his manure comparatively worthless, and would sterilize no more. The sterilization was begun for the purpose of saving the cost of removing the soil and replacing with fresh compost. But he finds that it is better to do this and use the old compost out doors. It is, of course, a big job to remove acres of soil eighteen inches deep and replace it, but this is what they have to do after going to the expense of putting steam pipes in the soil.

This man has his own private well of natural gas and uses it for an engine to pump water for irrigating his outside garden, but uses coal for heating his boilers. On his place there were six acres in greenhouses all growing lettuce, to be followed by tomatoes and cucumbers.

In the afternoon I spoke on the progress of market gardening in the South, and told them that so far as out door crops were concerned they had nothing to fear from the South, as each section has its own turn at the market. It was, of course, strange for them to see products coming from the South and selling at fancy prices

before their outside crops were planted, but that if they once had had experience with Southern railroad rates they would understand how small a part of the fancy prices go to the growers in the South. But I said if the Southern growers ever wake up to the great advantage their sunny winter climate gives them for forcing under glass they would have a real competition in winter, for sunshine counts for more than fire heat under glass, and the long dark spells they have up there in winter would handicap them badly in competition with men in the upper South, who have so much winter sunshine, and need to burn so much less coal. But so long as truckers in the upper South stick at the cost of glass and continue to use cloth on cold frames they would have the forcing market to themselves.

The extent to which this winter forcing has grown in the North is surprising to one who has not visited the growers. There are probably seventy acres under glass in vegetable crops at Cleveland, more at Ashtabula, Toledo and at Grand Rapids, Michigan, and at Irondequoit, New York. I was told that there are over two hundred large establishments engaged in this winter gardening under glass. Then, around Boston, at Arlington and Belmont, Mass., there are immense establishments, and in all these places the growing of lettuce is the most important crop. One Arlington man has tried to overcome the winter darkness in Massachusetts by stringing arc lights along outside his greenhouses and claims that it pays.

And yet, in the South, we can grow just as good lettuce in a simple frame with glass sashes, but the growers stick to cloth and send an inferior article that sells for less than the greenhouse lettuce.

W. F. MASSEY.

GREATER HIGHWAYS CONVENTION.

On the 10th of February there assembled in Richmond one of the most representative gatherings of the citizens of the State which it has been our pleasure to see for many years, to discuss and formulate some plan for the creation of a system of Greater Highways throughout the State. The gathering was called to order by State Senator C. T. Lassiter, of Petersburg, and a roll-call of members disclosed near 500 gentlemen present, representing nearly every county and city in the State. After the Convention had been welcomed by the Mayor, Hon. D. C. Richardson, the Convention was addressed by Governor Swanson, who is an enthusiastic advocate of the good roads movement, and has evidenced his interest therein by securing from the last Legislature the first State appropriation for road building of \$250,000, which he made the leading feature in his message to that Legislature. He strongly emphasized the importance to the material advancement of the State of the building of good roads in every county, and especially of the building of such a system of Greater Highways, as would link up each section of the State with the adjoining ones, and the cities and railroads. The Convention was heartily in accord with the Governor in his remarks. State Highway Commissioner Wilson, Superintendent Morgan, of the State Penitentiary, Otto Evans, of Amherst county, and Senator Lassiter addressed the Convention on various phases

of the road building problem, and Senator Lassiter outlined a plan which he had formulated for the effective prosecution of the work based on a system of bond issues by the counties, the interest on which was to be provided by State taxes on automobiles and vehicles of all kinds, to be paid into the State Treasury, and to form a sinking fund for the bonds and the interest thereon, this system to supplement the State aid given by the Legislature in the way of appropriations, and in convict labor. Major Crosby, of Maryland, explained what his State had done in the way of providing means for building roads, and the progress they are making, and Major Logan Page, of the office of Public Roads, of the Department of Agriculture, promised all the aid which the National Government was authorized to give in any way in which that help could be utilized for the benefit of the State. The Convention adopted an organization to have charge of the work of perfecting a Greater Highways system for the State. The Hon. Robert W. Withers, of Suffolk, was made President of this body. Senator C. T. Lassiter, Vice-President and Chairman of the Executive Committee; M. L. Harwood, of Richmond, Secretary and Treasurer, and George W. Rogers, Assistant Secretary. The organization adopted provides for Executive and Legislative Committees, the former to be composed of one member from each Congressional District, and five members at large, and the latter to be composed of two members from each Congressional District, and five members at large. The members of these two committees were selected by the delegates present at the Convention from the several districts. We trust that this organization will at once get together and set about the work of perfecting the legislation to be asked for at the next meeting of the Legislature, to make progress with the work. Before separating, the Convention pledged over \$6,000 to carry on the work. We will have something to say as to the nature of the legislation which we think should be asked for. We want to see the cities carry their full share of the cost of making highways. They will be benefitted as much as the counties, and this point must not be lost sight of.

DARK TOBACCO FERTILIZERS.

Since writing the article "Work for the Month," in one section of which we fully discussed the question of the fertilizer to use in growing dark and bright tobacco, we have received a note from Prof. Mathewson, in which he says that in 1908 he changed the formula for the dark tobacco, which gave such excellent results in 1907, so as to make it somewhat less costly and yet gave as good results. He used in 1908, 100 pounds of nitrate of soda instead of 150 pounds, 500 pounds of acid phosphate instead of 300 pounds, and 100 pounds of sulphate of potash instead of 200 pounds, and left out the bone meal. The formula thus changed runs 1,000 pounds ground fish, 100 pounds nitrate of soda, 500 pounds acid phosphate, and 100 pounds of sulphate of potash per acre, costing \$30.00, instead of \$32.00, as first used. We commend this change to the notice of our readers.

HORSES FOR FARM WORK.

Editor Southern Planter:

I am an advocate of using heavy draft horses on the any breed of draft horses is good enough

if they have the bone and weight, but I prefer the Percheron for reasons heretofore given. I do, however, get worried when I receive inquiries for "prices on registered Percheron mares from five to seven years old that will weigh from 1,250 to 1,350 pounds." I have a registered five-gaited saddle mare that weighs 1,250 pounds, that has seen hard usage under saddle and in harness for the past nine years, and up to date I have not found the road that was long enough to make her "leg weary," or would make her "ease up on the bit"; nor have I ever seen the time when she needed a whip. I have a driving mare close to twenty years old by the trotting stallion, "Dundee," and out of the thoroughbred mare, "Chiquita," and this mare weighs to-day 1,300 pounds, and if I mistake not, Mr. Shepherd, of the Planter has driven behind this mare, and if so, he can testify to her qualities as a road mare, and an all-day harness animal; but while these mares have these weights, they have not the qualities of the work horse, and were never intended for farm work, or slow and heavy pulling; one of the best and most satisfactory farm workers that I own is a mare that in ordinary work horse condition weighs over 1,900 pounds, and is eleven years old.

Some persons think because animals show a lot of nervous energy that they do not mind the heavy tasks imposed, but it isn't natural to suppose that a light weight animal can stand to draw heavy loads and heavy farm machinery, and last as long as the heavier kinds. It has been demonstrated in the armies of many nations that the light or medium weight man can stand the long marches and wear out the big husky messmate; but put these men to work on the docks, or in stone quarries, and see how soon the lightweight man succumbs, while the big, burly mate is not made tired; the same rule will hold good in all cases. The Jerseys, Guernseys and the Holsteins make the Shorthorns, Angus and Herefords "look cheap" in a dairy contest, and, vice versa, in a butchering contest; an all-wise Providence has made no man or animal perfect in all things, but has given us animals for every purpose, and when man tries to make a good work horse out of a saddle horse, trotter, runner, coacher or pony, then he is wasting energy, time and money.

Rockingham Co., Va.

JOHN F. LEWIS.

TAXING AUTOMOBILES.

The proposed Massachusetts law, strongly favored by the State Highway Commission, plans to annually tax each machine fifty cents per horse power. Thus the rich owner of a 40-horse power car will contribute to the State the modest sum of \$20.00, while the owner of the small car will pay proportionately less. This fund will do something toward repairing the damage to highways which results from the operation at a very high rate of speed of the big autos. Only recently, in his inaugural address, Governor Hughes recognized the necessity of protecting the highways from ruin as a result of high power automobiles, and, furthermore, asked the Legislature to fix adequate license fees uniform in New York and adjoining States. This movement in the Legislatures is not an attack on automobiles, which are now everywhere recognized as having a legitimate place. It is simply a determination that they be operated in a manner fair to all.

THE
Southern Planter

PUBLISHED BY
THE SOUTHERN PLANTER PUBLISHING CO.,
RICHMOND, VA.
ISSUED ON 1ST OF EACH MONTH.

J. F. JACKSON,
Editor.

B. MORGAN SHEPHERD,
Business Manager.

B. W. RHOADS,
Western Representative, 844 Tribune
Building, Chicago, Ill.

MANCHESTER OFFICE,
W. J. Carter, 1102 Hull Street.

ADVERTISING RATES
Will be furnished on application.

The SOUTHERN PLANTER is mailed to subscribers in the United States, Mexico and island possessions at 50 cents per annum; all foreign countries, \$1; the city of Richmond and Canada, 75 cents.

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

SUBSCRIBERS failing to receive their paper promptly and regularly will confer a favor by reporting the fact at once.

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.



TOWER'S
FISH BRAND
SLICKERS
wear well
and they keep you
dry while you are
wearing them
\$3.00
EVERYWHERE
GUARANTEED WATERPROOF.
CATALOG FREE
A.J. TOWER CO. BOSTON, U.S.A.
TOWER CANADIAN CO. LIMITED, TORONTO, CAN.

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.

WHOSE MONEY?

On February 20th we received a \$1 bill in one of our return envelopes, which has been posted in San Domingo, the post-office being illegible.

On February 22d we received a \$1 bill in envelope marked Rockcastle, Va.

As no name appeared in connection with either of these remittances we are unable to credit them.

WITH THE ADVERTISERS.

T. W. Wood & Sons, Seedsmen, Richmond, Va., are desirous of making contracts with farmers for growing an endless variety of seeds. Look up their advertisement.

Note the advertisement of the Springbrook Poultry Farm. This is an old advertiser who has some good stock at reasonable prices.

Horse owners will be interested in the advertisement of the Visio Remedy Co.

Parke, Davis & Co. resume their advertising this month. Look up the ad.

The Wells Remedy Co. is a new advertiser and is offering Craft's Dis temper Cure.

A. B. Farquhar Co. have a couple of advertisements in this issue of particular interest at this time.

The Earp-Thomas Farm-O-Germ Co. has two prominent advertisements elsewhere in this issue, to which your attention is invited.

C. F. Grossmann, seedsman, has an announcement of "Mogul" seed corn on another page.

Poultrymen will doubtless be interested in the ad. of the Williamson Farms, to be found on another page.

Philadelphia Silo is advertised as usual this season by the E. F. Schlichter Co.

Plant Wood's Seeds
For The
Garden & Farm.

Thirty years in business, with a steadily increasing trade every year—until we have to-day one of the largest businesses in seeds in this country—is the best of evidence as to

The Superior Quality
of Wood's Seeds.

We are headquarters for
Grass and Clover Seeds,
Seed Potatoes, Seed Oats,
Cow Peas, Soja Beans and
all Farm Seeds.

Wood's Descriptive Catalog the most useful and valuable of Garden and Farm seed Catalogs mailed free on request.

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



WE SHIP ON APPROVAL
without a cent deposit, prepay the freight and allow 10 DAYS FREE TRIAL.
IT ONLY COSTS one cent to learn our unheard of prices and marvelous offers on highest grade 1909 model bicycles.
FACTORY PRICES Do not buy a pair of tires from anyone at any price until you write for our large Art Catalog and learn our wonderful proposition on first sample bicycle going to your town.
RIDER AGENTS everywhere are making big money exhibiting and selling our bicycles. We sell cheaper than any other factory.
Tires, Coaster-Brakes, single wheels, parts, repairs and sundries at half usual prices. Do Not Wait; write today for our special offer.
MEAD CYCLE CO., Dept. K262 CHICAGO

WARD POULTRY FENCE.
Old fashioned 40-carbon elastic spring steel wire. 30-days free trial. Best and strongest. Turns Stock as well as Poultry. Send for free catalog No. 57A. Address The Ward Fence Co., Box 252 Decatur, Ind. — Also manufacturers of Ornamental Wire and Ornamental Steel Picket Fence.



PILLING **Cattle Instrument Case**
"Easy to Use"—no Veterinary experience necessary. Contains \$3.00 Milk Fever Outfit and eight other "Easy to Use" Cattle Instruments needed by every cow owner. Complete in Oak Case \$10.00, regular value \$15.00, sent prepaid with "Easy to Use" directions on receipt of \$10.00. Send for Free Booklet '23
G. P. PILLING & SON CO., Arch St., Philadelphia, Pa.

BANK OF RICHMOND,
Main and Ninth Streets.

CAPITAL, \$1,000,000 00.

SURPLUS, \$475,000.00.

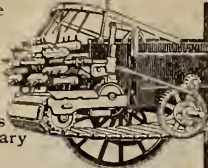
Special attention paid to out-of-town accounts. Correspondence invited.

Three per cent. Interest Allowed in Savings Department.

Compounded Semi-Annually.

FEARLESS Manure Spreader

Here is a Manure Spreader which spreads wider than any other spreader, yet is built narrow enough to pass over farm lanes and through farm gates as easily as an ordinary farm wagon.



THE CIRCULAR BEATER DOES IT.

Look at the cut below showing the "FEARLESS" circular beater which spreads six and a half feet wide from a box three feet wide.

Other spreaders cover a strip only their own width—hence must be wide and heavy. The "FEARLESS" spreads outside its wheels—therefore can be built narrow and light. That means less horse power to operate; more trips to the field per day, and no driving over manure already spread.

Other advantages—an endless apron, doing away with dangerous automatic return mechanisms, and a perfect rake for leveling load. Write for catalogue and prices.



Harder Mfg. Company
BOX 32
Cobleskill, N. Y.

Fertilizer, Sower

Handles All Commercial Fertilizers

wet or dry, coarse or fine. Positive feed, no choking, no skips.

For Broadcast Top-dressing

or Drilling in Rows. Spreads to width of 5 ft. 10 inches, 200 to 4000 lbs. per acre.



LOW—EASIEST TO LOAD

Broad tires, no rutting. Quick changes from drilling to broadcasting, also for thick and thin spreading. Furnished with shafts or tongue. Write for descriptive circulars and testimonials.

Special Large Size, Sows 8 Feet 3 Inches Wide.

BELCHER & TAYLOR A. T. CO.,
Box 25, Chicopee Falls, Mass.

De LOACH 3 1/2 to 200 H. P. SAWMILLS

Steam, Gasoline and Water Power Planers, Shingle Mills and Corn Mills.

WE PAY THE FREIGHT.

Send for Catalogue.

DeLoach Mill Mfg. Co., Bridgeport, Ala.
Box 265

Please mention the Southern Planter.

Farm bargains are offered in a full page ad. by C. G. Stephenson.

The Indian City Farm offers to lease two splendid hackney stallions.

Joseph Haas Hog Remedy is advertised in another column. Your attention is invited to it.

Gilbert Bros & Co. have a full page advertisement of Yager's liniment for man and beast, in this issue.

Look up the advertisement of the National Phonograph Co. on another page.

The International Harvester Co. has several advertisements in this number, to which your attention is asked.

Breese Bros. & Co. are advertising rubber roofing in an attractive manner in this issue.

Deere & Mansur Co. are advertising their celebrated corn and cotton planter this month.

The Ohio Carriage Mfg. Co. is a liberal user of space this month. Its vehicles are familiar to a number of our readers.

W. T. Rawleigh Medicine Co. have a card in another column, to which your attention is asked.

Patent Vulcanite Roofing Co. has two advertisements in this issue, to which your attention is asked.

A CURE FOR HOG CHOLERA.

Hog cholera or swine plague, as it is sometimes called, is a highly contagious disorder.

When a hog shows any symptoms of this disease, he should be isolated at once and the pen fumigated in order to save the other hogs if possible.

Mix one part Sloan's Liniment with two parts milk in a bottle and give every sick hog a tablespoonful of this mixture night and morning for three days. Sloan's Liniment is a powerful antiseptic, kills the disease germs, soothes all inflammation and acts as a tonic to the animal.

A. J. McCarthy, of Idaville, Ind., says: "My hogs had hog cholera three days before we got Sloan's Liniment, which was recommended to me by a neighbor who was using it with success. I have used it now for three days and my hogs are almost well. One hog died before I got the Liniment, but I have not lost any since."

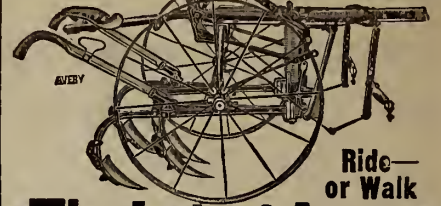
A 250,000 BUSHEL ELEVATOR.

The John A. Salzer Seed Co., La Cross, Wis., by all odds the largest farm, grass, clover, potato and vegetable seed growers in America, if not the world, have just broken ground for a unique seed elevator with storage and cleaning capacity of more than a quarter of a million bushels.

This great firm is sending out clover seed testing 99.95 per cent. pure, a record justly to be proud of.

If you haven't Salzer's catalogue, look up their advertisement and write for it to-day.

"The Universal" Cultivator



Ride—
or Walk

The Latest Avery

Has such Special Features as Adjustable Arch, Balance Levers, Accurate Depth Regulators with Cushion Springs.

All this in addition to the features which years ago made Avery Cultivators famous, including Double-Acting Lifting Springs, Rod Fenders, Special Shape Shovels, Etc. Every Avery has the reputation of "Going In," Easy Handling and Long Service. It pays to know Avery Cultivators. Free catalog tells all. Write for it.

EVERY CO. Makers of Corn Growing, Steam Plowing and Threshing Machinery
443 Iowa Street
PEDIARIA, ILLINDIS

The Improved New Stump Puller Write for Prices



Chamberlin Mfg. Co., Olean, N. Y.

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.

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

THE GENUINE — STUMP PULLERS —
SMITH
30 DAYS' FREE TRIAL
W. Smith Grubber Co., Dept. D29, LaCrescent, Minnesota

A. K. ROBINS & CO.
CANNING MACHINERY
CANS CASES LABELS.
726 E. PRATT ST. BALTO. MD.

ONE MAN DOES WORK OF TWO

With Iron Age Riding Cultivators. You can do it easier and better, because they are built on lines that make this possible. Hoes are under perfect control. Can regulate depth and keep hoes desired distance from growing plants. More advantages in our IRON AGE Booklet FREE.

IRON AGE

Pivot or fixed wheel, wheels high or low

RATEMAN MFG. CO., Box 167C GRENLOCH, N. J.



MODERN SILAGE METHODS

Send for this new 224-page book on Silos and Silage. 1908 edition—size 5 1/4 x 7 1/2-in.—indexed—over 40 illus. Used as a text book in many Agricultural Colleges. Contents by chapters follow: "Advantages of Silo," 25 pages; "Silos: How to Build," 76 pp.; "Concrete or Cement Silos," 10 pp.; "Silage Crops," 16 pp.; "How to Make Silage," 19 pp.; "How to Feed Silage," 22 pp.; "Feeder's Guide," etc., 66 pp. A vast amount of knowledge boiled down—nothing so complete ever published—answers every silage question. Mailed for 10c coin or stamps, if you mention this paper.

SILVER MFG. CO.,
Salem, Ohio

10c

SILOS

The "PHILADELPHIA," 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 Eleventh St., Philadelphia, Pa.

ECONOMY SILO

Metals and Highest Award at the Jamestown Exposition. No spoiled ensilage in Economy Silos. Absolutely air-tight. Strong and simple in construction. Staves of seasoned white pine or cypress. Hoops of refined iron, forming perfect ladder. Doors, simplest and tightest made; quickly adjusted without hammer or wrench. Every silo easy to erect, and fully guaranteed. Write today for free illustrated catalogue with experiences of users.


Economy Silo & Mfg. Co.
Box 38G Frederick, Md



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 42, Cobleskill, N. Y.



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

A FAVORITE ROOFING.

Among farmers in all parts of the country, Amatite Roofing has been growing rapidly in favor on account of its low cost and its great durability. Although it is a better and more permanent roof than the average "ready roofing," it is as easy to lay as a carpet, requiring no special tools or skilled labor. The silver gray mineral surface of Amatite is easily recognized on the roofs and adds much to the appearance of the farm buildings.

Sample and booklet will be sent in reply to a postal addressed to the nearest office of the Barrett Manufacturing Co., New York, Chicago, Cleveland, Allegheny, Kansas, City, St. Louis, Minneapolis, Philadelphia, New Orleans, Boston and Cincinnati.

MODERN CATTLE FEEDING.

The history of the cattle business in the United States has been for some years a record of successful effort to introduce improved breeds and better methods.

Most people can well remember when the Texas Long-Horn was the typical "Western steer," and many a prairie farmer's "best room" is even yet decorated with a pair of wide-spreading "Texas" horns, whose ample proportions fully attest the half-wild character of the animal that carried them.

But it's not by any means the type of animal alone which has brought the marvelous expansion of the cattle business. Methods have much more to do with it than breeds. Feeders know now what they didn't realize then—that system must prevail at every step in the feeding process in order that digestion shall be perfect and food-waste eliminated.

This is the prime point on which stress must be laid, and the reason is too plain to need more than a moment's explanation. Every one knows that a certain proportion of the grain and fodder a steer eats is assimilated and taken into the blood to renew and upbuild bodily tissue and that a larger proportion passes off as waste.

Now, it's evident on the surface that to increase assimilation and decrease waste is good business. It means more fat on the ribs and less in the manure pile. It means a bigger steer and a better one; and this is what "The Dr. Hess Idea" is teaching feeders to do with unqualified success everywhere to-day.

"The Dr. Hess Idea" teaches that the one important function of the body is digestion. It points out the fact that digestive organs must be strengthened to meet the constant strain of heavy feeding. It shows that neglect here is fatal, because it invites digestive weakness, causes loss of appetite and brings about a general and disastrous reaction of the whole animal economy.

THIS IS IT

ELECTRIC

The wagon you are looking for; the wagon folks are all talking about. By every test it is the best—no living man can build a better. Of course you have guessed that it's the

ELECTRIC HANDY WAGON

Low steel wheels; wide tires and durability and good service written all over it. Don't be talked into buying an inferior. Get the wagon that lasts. Or we'll sell you a set of Electric Steel Wheels and make your old wagon new at slight expense. Spokes united with the hub; absolutely impossible to work loose. Sold on a money-back guarantee. Their saving in time, labor, horse flesh and repair bills will pay for them in a single year. More than a million and a quarter in use. All we ask is a chance to tell you more about them. Drop us a line, we'll do the rest. Catalog free.

ELECTRIC WHEEL CO.,
Box 146 Quincy, Ill.




Haul Bigger Loads
but don't put more work on your horses

With the **Empire Farmers' Handy Wagon** fitted with "Good-Roads" Steel Wheels you can haul from 25 to 50 per cent heavier loads without causing any heavier draft.

Tests have shown that on a clay road in deep mud a team will draw a ton and a half on the Empire Farmers' Handy Wagon and do it easier than the same team will draw an even ton on an ordinary wagon. Send for Free Book telling why "Good-Roads" Steel Wheels Make All Roads Good."

EMPIRE MFG. CO., Box 625, Quincy, Ill.



HARNESS
By Mail

You can buy custom-made oak-tanned harness direct from our factory at wholesale prices. You save two profits—the jobber's and dealer's. Write for our new illustrated catalogue and see for yourself just how much money you can save. All our harness is guaranteed, and we leave you to be the judge. If you're not satisfied, money back. Every farmer should have our booklet. Write to-day and ask for catalogue 0.

THE KING HARNESS CO.,
16 Lake St., Oswego, N. Y.



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., 433 17th St., Racine, Wis.

Free Trial To You

WHEELS, FREIGHT PAID \$8.75
for 4 Buggy Wheels, Steel Tires. With Rubber Tires, \$15.20. 5 mfg. wheels 1/2 to 4 in. tread. Buggy Tops \$5.50, Shafts \$2.00. Top Buggies \$31; Harness, \$5. Learn how to buy direct. Catalogue Free. Repair Wheels, \$2.50. Wagon Umbrella FREE. W. V. BOOB, Cincinnati, O.




KELLY DUPLEX GRINDING MILLS

Grind ear corn, shelled corn, oats, rye, wheat, barley, Kaffir corn, cotton seed, corn in shocks, sheaf oats, or any kind of grain; coarse, medium or fine. The only mill in the world made with a double set of grinders or burrs.

SIX SIZES
Easily operated. Never choke. Fully guaranteed. Especially adapted for gasoline engines.

Write for catalog and any information desired.
DUPLEX MILL & MFG. CO.
Box 20 Springfield, Ohio

Free Catalogue



\$1500 to \$5000 a Year

has been made by hundreds of people operating the

"American" Drilling Machines

There is no business in the world where a few hundred dollars investment, combined with a little energy, will obtain a competency so surely or quickly as the operation of an "American" Well Machine. 40 years' experience and 59 regular styles and sizes make them the world's standard.

Complete New Catalog **FREE**.
The American Well Works
Gen'l Office & Works, Aurora, Ill.
First Nat. Bank Bldg., Chicago.

Sydnor Pump Company, Richmond, Virginia.



Corn Belt Mill

Sent, Freight Paid, **FREE**
On 20 Days' Grinding Test
This is the only mill that grinds Corn and Cob Meal perfectly. No other mill grinds the cobs evenly with the kernels. It cuts before it grinds. Doesn't beat the ground feed. Unexcelled for easy grinding and fast work. It grinds feed that fattens in shortest time at lowest cost. Any responsible stock owner can have one on 20 days' free trial, freight paid in advance. Write for **FREE BOOK ON FATTENING STOCK** Worth dollars to stock owners. Gives full facts about our famous Sweep and Power Mills. Write for it now. **SPARTAN MFG. CO., Dept. 1140, PONTIAC, ILL.**



ONLY \$3

Prepaid to Your Depot
Here's a hand-mill that always pleases. A larger and better mill for the money than any other. Grinds corn, wheat, rice, coffee, hominy, etc. Instantly adjusted to grind as fine or coarse as desired. Fine for cracking grain for poultry.

Black Hawk GRIST MILL

turns easy (see long crank) grinds fast. Very durable, nothing to get out of order. Write now for free book **A. H. PATCH, Mfr. Hand Mills and Corn Shellers exclusively. Agents wanted. Clarksville, 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 canvassing for petitions for new Rural Route. Write today.
KENTUCKY STAMPING CO., DEPT. 35 LOUISVILLE, KY.

A TEN-YEAR ROOFING GUARANTEE BACKED BY A SURETY COMPANY BOND.

In the advertising columns of this paper the United Roofing and Manufacturing Co. are offering to every purchaser of 3-ply Congo Roofing a National Surety Co. guarantee bond, which covers a period of ten years. This Company is one of the largest surety companies in the world (capital and assets of about \$2,000,000), and when they back a proposition there must be a great deal in it or they would not have risked their reputation on something about which there could be any question.

The Congo people are desirous of making this roofing the most used in the world, and with their usual foresight hit upon this excellent plan of giving the buyer satisfaction as well as increasing their sales. The bond is a plain statement of what they can and will do, and offers such protection that no prospective buyer can afford to overlook. This bond means protection to you.

It isn't necessary to buy the roofing to learn the contents of the bond—which is another pleasant feature. By writing to the United Roofing & Manufacturing Co., Philadelphia, Pa., they will be glad to send you information regarding same and sample free.

THE FARMER AND HIS SON.

Why do so many boys consider farm work drudgery? Impossible to answer fully in "abbreviated" space because there are so many boys and so many farms—and fathers. But we will offer a suggestion, and shall hope that it will be like sowing seed in good ground.

Fathers who earnestly desire that their boys shall become interested and stay on the farm must make farm life attractive; must stir up some enthusiasm. Our suggestion would be to get together—do it now—and form a limited co-partnership. The first act should be to draw up a lease for one acre of good land. Rental to be determined by the value of the crop grown on the same land during 1908. Then plan for a good garden—a boy's garden. Ten to one a better garden than father ever had. Appoint a committee of neighbors to decide this. Think of the interesting topics for discussion—for the boy, for father, and mother; the seedsman, the man who manufactures fertilizers, our agricultural colleges, et. al. Think of the interesting and instructive correspondence—all of this during the long winter evenings. For plowing the garden a charge should be made for the use of the team, payable in overtime work—at the wood pile, or in the corn field. Books should be kept and everything from the drawing of the lease to the marketing of the crops should be done in strict conformity to business

A Postal Card
To Us Will Save You
Money on any

FARM IMPLEMENT

OR MACHINE

It Matters not who or where you are

Write us for Prices

Don't fail to get our prices on **WOVEN WIRE FENCE**

for your spring work before buying elsewhere.

We sell the **AMERICAN**, which is the best.

Seay-Dillard H'd'w. Co.
BLACKSTONE, VA.

"The Big Store in the Little Town."

The FARMERS' GARDEN

A Seed Drill and Wheel Hoe is indispensable—not only in a village garden but on largest farms. Farmers should grow all manner of vegetables and "live on the fat of the land." Should provide succulent roots for Cattle, Swine, Poultry, and save high priced feed stuff. Great labor-saving tools of special value for the home as well as the market garden. Send for free book.

SAVE HIRED HELP

Only One of Many Iron Age Tools

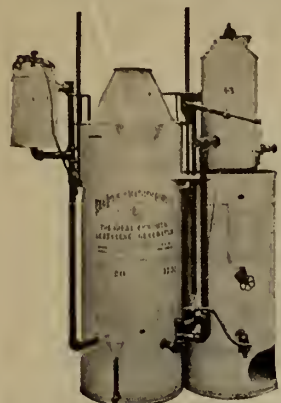
IRON AGE

The most complete tool made



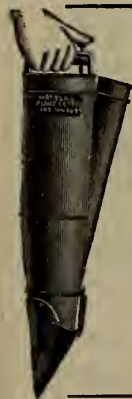
BATEMAN MFG. CO., Box 167G GRENLOCH, N. J.

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.**



Here is a
Money Maker
for every
**TOBACCO, CABBAGE, TOMATO
AND SWEET POTATO GROWER**
**Masters
Plant Setter**

takes away all the tedious work of setting out a field of plants. This Setter is a great labor saver, a crop producer and a drought breaker. Is worth **TEN TIMES** its cost to every farmer and grower in the U. S. Send us your name and address and we will tell you all about it and what it will do, price, etc.

**COUNTY AGENTS WANTED
MASTERS PLANTER CO
184 So. Water St., Chicago, Ill**

Make Your Own Fertilizer



at Small Cost with
WILSON'S PHOSPHATE MILLS
From 1 to 40 H. P. Also **Bone Cutters**, hand and power for the poultrymen; grit and shell mills, farm feed mills, family grist mills, scrap cake mills. Send for our catalog.
Wilson Bros., Sole Mfrs., Easton, Pa.

**Great Power - Small Cost
No Risk**

Buy a powerful engine that is durable, economical and absolutely safe.

Waterloo Gas Engines

develop the full rated horse power and more. They are guaranteed for five years at any kind of work, never shut down for repairs, are absolutely simple in operation, and all sizes furnish the cheapest power for every purpose. Best for machinists, miners, millers, manufacturers, printers, farmers—for drilling, pumping, running air, compressors, dynamos, etc. Sold on credit if desired. Write today for free Encyclopedia of Engine Facts.



**Waterloo Gasoline
Engine Company,
201 West Third Ave.,
Waterloo, - Iowa.**

**Horace L. Smith, Gen'l Agt.,
24 Bollingbrook St., Petersburg Va.**

rules. The Bateman Mfg. Co., Box 167, Grenloch, N. J., manufacturers of "Iron Age" garden tools, will cheerfully send their "Iron Age" book, free of cost, if requested, and will gladly correspond and offer suggestions. They are located in the Garden State, in one of the most fertile sections. Their first "shop," illustrated in the autumn number of the "Iron Age Farm and Garden News," which may also be had for the asking, and contains many valuable suggestions, was a tiny acorn, seventy-two years ago, but has grown into a mighty oak. Let the father and his son get together. Mother and sister will lend a helping hand if they may plant flowers in a little plot in one corner of the garden.

HOW TO MAKE HOT-BEDS.

A very practical and extremely interesting book telling all about hot-beds—their uses, cost and construction—has just been issued by the Gordon-Van Tine Co., 1677 Case St., Davenport, Iowa.

Professional market gardeners and florists have always used hot-beds very extensively. In fact, this simple, yet wonderful system of forcing the growth of vegetables is the foundation of their success and profits.

The money-making possibilities of hot-beds, however, are now so easy to grasp, that anybody who has a garden, large or small, can profit by their use.

The little hand-book on hot-beds above referred to gives a wealth of information on the subject. It tells how to construct them, where to locate them, and how to manage them for best results. Gives a handy guide to aid you in your spring planting. Offers valuable suggestions on raising vegetables and flowers.

The owner of a hot-bed is always first to have fresh vegetables. A hot-bed extends the growing season throughout the entire year. The Gordon-Van Tine Co. have gone into the manufacture of hot-bed sash on a large scale. They sell the very finest sash, made of Louisiana Red Cypress, with blind-mortised, double-shouldered joints, at just half the price of old-style hot-bed sash.

Copies of the book on hot-beds are now being distributed free. Send for a copy and get the latest and best ideas on this money-making system of forcing the growth of plants.

**DRUGGIST KNOWS VALUE OF
CAUSTIC BALSAM.**

Please send pictures of horses and any advertising matter you may have. I sell Gombault's Caustic Balsam, and have used it personally and know its value.—L. W. Oneacre, New Martinsville, W. Va.

Fine Plowing
*Deere Books
Tell How—*



You can get them and a 16-page illustrated farm paper free

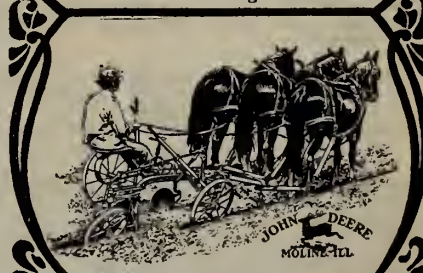
Don't miss this chance

If interested in farming, get our farm paper. You can have it one year absolutely FREE. This paper will give you some new ideas. No other paper like it. We will also send you *three mighty nice booklets* which show all kinds of plows at work in the field. There are plows from many foreign lands, also pictures of modern walking plows, sulkeys, gangs and immense steam plows that turn forty acres a day. Get posted.

Hired Help Costs Big Money

Your land is high priced and hired help expensive. There is only one way to make big money—use implements that cut down the cost of your crops. Isn't it true that when you break something on a plow it is nearly always a cast part? Wherever strain comes on a JOHN DEERE PLOW there you will find steel—tool steel. Take any plow that has had hard work for five years, put it along side of a JOHN DEERE which has been in service that long—and see the difference. Then there is no paint to cover up poor material. You can see the wear and the defects. The JOHN DEERE will be solid, staunch and ready for the hardest job. Then you begin to know that quality counts.

There is comfort and profit in having good plows. You can take pride in owning a JOHN DEERE—the standard plow of the world for two generations.



We will send you the farm paper and the three booklets free. All you have to do is to write us a postal card and ask for

Package No. 5

Mention the number of the package then you will get exactly the right stuff.

DEERE & COMPANY, MOLINE, ILL.

ENGINES FOR SALE.

Ten horse traction \$250; 10 horse portable, \$150; 12 horse portable, \$200; 6 horse boiler and engine, \$90; 1 horse gasoline engine, \$40; 3 horse, \$60; 6 horse, \$125; 10 horse, \$175. Boilers and engines from 1 to 100 horse carried in stock for immediate shipment.
Casey Boiler Works, Springfield, Ohio.

Men Wanted Quickly By Big Chicago Mail Order House to distribute catalogues, *advertisers, etc.* \$25.00 a week. \$60.00 expense allowance first month. No experience required.
MANAGER, Dept. 90 885 WABASH AVENUE, CHICAGO

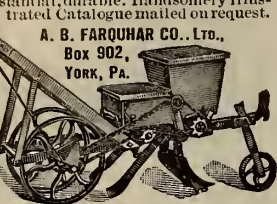
FARQUHAR

Keystone Corn Planter

Easily plants 10 to 12 acres per day. May be adjusted to hills or drills any distance apart; force feed fertilizer attachment. For all soils; plants field, sweet or ensilage corn, beans, peas, etc. Substantial, durable. Handsomely illustrated Catalogue mailed on request.

A. B. FARQUHAR CO., LTD.,
Box 902,
York, Pa.

Engines
Boilers
Saw Mills
Thrashing
Machinery



Running Water Everywhere

A constant supply for as many purposes on your place as you desire. No trouble, no expense when you have installed a

RIFE HYDRAULIC RAM

Pumps water from spring, stream or pond automatically. Inexpensive, simple, reliable. Satisfaction Guaranteed. Raises water 30 feet for every foot of fall. 7,000 in use.

Write For Free Plans and book of valuable suggestions.

RIFE ENGINE CO.
2112 Trinity Bldg.
New York



BARGAINS IN

2nd Hand Machinery.

THE WATT PLOW COMPANY,
Richmond, Va.

- 1—15 H. P. (8x10 cylinder) Pitts Engine and boiler. Mounted on Steel Wheels.
- 1—8 H. P. Gelsner Engine and Boiler on wheels in first-class condition.
- 1—10 H. P. Gelsner Engine and Boiler on wheels. In fine condition.
- 1—12 H. P. Gelsner Engine and Boiler on wheels in good condition.
- 1—12 H. P. Ames Engine and Boiler on wheels.
- 1—20 H. P. Gelsner Engine and Boiler on wheels in first class condition.
- 1—No 2 American Saw Mill with saw and belt^s as good as new.
- 1—No. 1 Lane Saw Mill with 52-inch saw, all belts. One swing cut off saw. Both in good order.
- 1—4-inch, 4-sided Molder.
- 1—22-inch Planer, Matcher and Molder complete with countershaft and pulleys.

We invite your correspondence and will gladly give any information desired.

THE WATT PLOW CO.,
1426 E. Main St., Richmond Va.

A HARBINGER OF GOOD TIMES.

The bright outlook for business conditions all over the country is not a new thing to the farmer. His prospects were brightened long ago by the invention of wonderful labor-saving and time-saving implements, which have enabled him to increase his yield and market his output with corresponding increase of profits, despite depressed conditions in the industrial world. People must live, and to live they must eat. Whatever else they are compelled to do without, they cannot do without food, so that what-

ever adds to the efficiency of the farmer in his food-producing vocation adds to his blessings. One of the most important factors in bringing about this condition was the invention of Planet Jr. farm and garden implements. They have revolutionized the slow, laborious old gardening and farming methods and have put them in the class of twentieth-century achievements. As an instance, No. 4 Planet, Jr., which is a combination hill and drill seeder, wheel hoe, cultivator, furrower and plow, is the most complete tool a farmer or gardener can have on his place. He can do more work with it and keep things in better condition in one-sixth the time it would take without it. The No. 4 is only one of the many Planet Jr. implements—there is one for every farm and garden task, whether for hand or horse power—and all of them are sold with an iron-clad guarantee of absolute satisfaction.

S. L. Allen & Co., Box 1107X, Philadelphia, Pa., who make these implements, have issued a handsome 56-page illustrated catalogue for 1909, which they are sending out to any one interested in better farming methods and labor-saving devices.

BUYING FARM MACHINERY.

Prominent in this class is the extensive line of farm machinery put out by the firm of A. B. Farquhar Co., Limited, of York, Pa. This firm manufactures the renowned "Keystone" corn planters, the Pennsylvania grain drills, and a great variety of potato diggers, harrows, engines, boilers, thrashing machines, saw mills, etc.

The story of Farquhar implements is fully told in the handsome catalogue for 1909, just issued. This book is attractively printed and illustrated and contains much valuable information relating to the company's products. Interested parties, whether intending purchasers or not, should write for a free copy, addressing the A. B. Farquhar Co., Ltd., Box 902, York, Pa.



SHIP ME YOUR OLD METALS

HIDES
RUBBER

SCRAP IRON

Car Lots a Specialty

50,000 Hides Wanted

Write for Prices.
Satisfaction Guaranteed.
No Commissions.

CHECKS SENT SAME
DAY FREIGHT BILLS
ARE MARKED PAID.

Clarence Cosby,

Established 1890.

RICHMOND, VA.

LARGEST DEALER IN
Scrap Iron, Metals, Hides,
Etc., in the South.

REFERENCES:

National Bank Virginia,
Bank of Richmond,
Bradstreets and Dun.

PERFECT POTATO PLANTING

Every farmer knows the importance of proper potato planting. Here's a machine that does it perfectly. Has none of the faults common with common planters. Opens the furrow perfectly, drops the seed correctly, covers it uniformly, and best of all never bruises or punctures the seed. Send a postal for our free book.

IRON AGE (Improved Robbins) Potato Planter

SAVE HIRED HELP

No Misses
No Doubles
No Troubles

BATEMAN MFG. CO., Box 167P GREENLOCH, N. J.




POTATO DIGGER

The Hoover

Does perfect work. Fully guaranteed. Write for illustrated catalogue of Diggers, Pickers and Sorters.

THE HOOVER MFG. CO., Box No. 69, Avery, Ohio

Transfer points—Buffalo, N. Y.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Marshalltown, Iowa; Idaho Falls, Idaho; Portland, Oregon; Spokane, Wash.; Winnipeg, Man.; Hamilton, Ont.



SAVE MONEY ON ROOFING

\$1.00 buys full roll (108 sq. ft.) of strictly high grade roofing, either rubber or flint coat surface, with cement and nails complete.

Most liberal offer ever made on first class roofing. Better than goods that sell at much higher prices. Don't spend a dollar on roofing until you have seen

UNITO ASPHALT ROOFING

You send no money when you order Unito Roofing. Satisfaction Guaranteed. Write today for free samples for test and comparison and our unparalleled selling plan.

UNITED FACTORIES CO. Dept. A9, Cleveland, O.



MONTROSS METAL SHINGLES

Offer you the ideal roofing. Never crack or scale. Light, durable and handsome. Fire and storm proof. Inexpensive. Last a lifetime. Easily laid, hammer and nails only needed; no soldering. Write for our illustrated catalogue; explains them fully. Sent free.

OCTAGON SHINGLE

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



FIX YOUR ROOF

5c Per Square.—We will guarantee to put any 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

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

A NOTABLE EVENT.

The endeavor now being made to make farm life more attractive to the growing generation has assumed proportions that portend very favorable results in the near future.

Doubtless, the chief causes of unrest and dissatisfaction among the younger generation has been the constant drudgery of the old, unscientific system of farming, which holds forth no chance or hope of progress or of making money. Thus the glare and turmoil of the city holds out to them a false promise of wealth and position.

The movement now so well under way aims at the "stay on the farm" result, rather than at attracting back the earlier deserters. Scientific farming—in theory and practice—not for the sake of botany or nature study, but rather for the purpose of making money out of agriculture, is now being taught and is doing more than any other one factor in making farm life attractive.

Agricultural colleges, as well as President Roosevelt's "Country Life Commission," are teaching the farmer that he can make money from his efforts. At the Agricultural College at Albert Lea, Minnesota, one boy raised \$2.70 worth of produce on an experimental plot, dimensions of which were 4x10 feet. This is at the rate of \$1,400' per acre.

Another important point is that a large percentage of farm-raised produce has heretofore been wasted. "Save the waste and turn it into wealth," is now the urgent cry. No better way to accomplish this result has yet been devised than that of canning at home all the surplus fruits and vegetables. In many localities fruit raisers and truck growers are to-day receiving profitable results from the operation of home canning outfits.

Large capital is not necessary. Commercial canning machines, which are capable of doing a large and profitable amount of business, can be bought for from \$20.00 up. No farmer with an orchard or garden—and what successful farmer does not possess both?—can afford not to have a canner of suitable capacity.

J. B. MOGFORD.

Lamont, Pa., July 11, '08.
Dr. B. J. Kendall Co.,
Enosburg Falls, Vt.

Gentlemen:—Having used your Spavin Cure for lameness and different ailments to advantage on both trotting and work horses, would be very thankful if you will mail me one of your books, A Treatise on the Horse and His Diseases.

Yours truly,
C. S. COSGROVE.

Tell the advertiser where you saw his advertisement.

Try this for a Big Load

The easiest running wagon or dray is the one lubricated with Mica Axle Grease.

Kills friction; stops wear; makes a two-horse rig run with one-horse power.

MICA Axle Grease

contains powdered mica which coats the axle with a non-friction surface—that's the why of it.

No grease helps as much as Mica Axle Grease.

If you try it, you'll know it.

Ask your dealer.

STANDARD OIL COMPANY
(Incorporated)




DEHORNING ISN'T CRUEL

It may be with a saw, but not so when the

KEYSTONE DEHORNER is used. It cuts from four sides at once; makes a sliding, sharp shear cut. Any stock-raiser can do it easily. No crushing or splintering of horns or tearing of flesh. Done in 2 minutes. Send for free booklet.


M. T. Phillips, Box 45, Pomeroy, Pa.



33 1/3% MORE LIGHT

Without extra cost. Equal to gas or electricity with a **'BIG' GLASS TOP LAMP BURNER**. It fits common lamps. To advertise will send postpaid, one to a family for dealer's name and 25c to pay for packing and postage. Either No. 1 or No. 2 size.

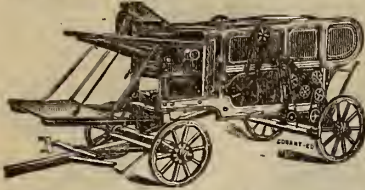
Dept 11 Bing Burns Co., Minneapolis, Minn.



LEARN VETERINARY DENTISTRY

and **\$2000** a year. We teach you at home in three months of your spare time by illustrated lectures and grant diploma with degree. Particulars Free. **Detroit Veterinary Dental College, Detroit, Mich.**

Farquhar Threshers



Especially adapted for the Southern trade. Thresh and clean all kinds of grain—wheat, oats, etc.—perfectly. Can be run with small steam engines or other light power. Simple but substantial and light running. Write about our new pea thresher and shredder. Also threshers oats and rice.

Handsome 68-page Catalog of engines, boilers, saw mills and threshers mailed free.

A. B. FARQUHAR CO., Ltd., Box 902, York, Pa.

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

Before you contract or buy write for our proposition



Neat-Nobby-Handy.

All Styles 3 to 30 h. p.

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.

\$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, Sole owner Pat. U. S. and Canada. Lodi, Ohio.

THE NEW CENTURY GATE

CAN be opened or closed from your wagon by small child. No springs, no hinges, no castings, no cog-wheels, no wood, no sagging, no dragging. So simple, so easy, no harness and almost no machinery; nothing to wear out or break, nothing to be getting out of fix. Not affected by drifting or deep snow, sleet or ice. Always ready for use and will last a life-time. A model of simplicity, durability and cheapness. If there is no Agent in your locality, please write New Century Steel, Wire & Iron Works,

602 S. REGISTER ST. BALTIMORE, MD

ORNAMENTAL WIRE AND STEEL FENCE

Cheaper than wood, combining strength and art. For lawns, churches, cemeteries. Send for FREE CATALOG. Address THE WARD FENCE CO., Box 656 Decatur, Ind

LAWN FENCE
Many designs. Cheap as wood. 32 page Catalogue free. Special Prices to Churches and Cemeteries. Coiled Spring Fence Co., Box Q Winchester Ind

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

IS THE SCALE KILLING YOUR TREES?

Among the best San Jose scale destroyers is Good's Caustic Potash Whale-Oil soap, \$3.00. It is guaranteed to exterminate all scale, apple scab, peach curl, lice and similar pests.

It is manufactured by James Good, in Philadelphia, who has been making it for years. It is used and endorsed by the United States Department of Agriculture and by many of the State Experiment Stations.

Mr. Good guarantees that his soap does not contain any salt, sulphur or mineral oils to injure the trees. The potash and whale-oil are fine fertilizers. The soap dissolves easily in water, and can be used in any sprayer.

It can be bought in any quantity from Mr. Good, at 959 N. Front St., Philadelphia. The price is reasonable.

MODERN POTATO HARVESTING.

That it has long since passed the experimental stage, and is now absolutely necessary on every farm where potatoes are grown in quantity, is witnessed by the large factory of the Hoover Manufacturing Co., which is devoted exclusively to the manufacture of potato harvesting machinery. This Company reports a gratifying increase, year by year, in the sale of their outfits.

The Hoover diggers are noted for their unusually light draft, and are made under the careful personal supervision of the inventor. It is a point of pride with the Company that no contract work whatever enters into the construction of their diggers.

A particularly attractive feature is the fact that Hoover diggers are sold upon a liberal trial offer, which gives the grower opportunity to test the machine before paying for it.

Details of this trial offer, together with literature describing their various potato diggers, pickers and sorters, may be obtained upon request to The Hoover Manufacturing Co., Box 69, Avery, Ohio.

This is indeed the "catalogue" season, and not the least among them is the attractive little booklet called "1909 Pocketbook of Pointers," published annually by the O. E. Stock Food Co., of Chicago, Ill. It contains not only an array of information on the value and merits of their goods, but an interesting article on "Modern Poultry Problems," by D. J. Lambert, Vice-President of the Company and Instructor in Poultry Craft, at the Rhode Island College of Agriculture and Mechanical Arts. The booklet is a little encyclopedia of progress and up-to-date knowledge, with suggestions and plans for each month in the poultry year, and we understand will be mailed to any one for a two-cent stamp.

The "Jubilee Year" of Page Fence



A Quarter-Century of Unparalleled Success

Page Fence is the Pioneer—the oldest woven wire fence on the market. Twenty-five years of test prove the supremacy of Page Woven Wire Fence in tensile strength, elasticity, durability and economy. Over 800,000 farmers, stockmen, dairymen and poultrymen use and praise it. The Government uses Page Fence as the highest standard of quality. The first Page Fence sold is still in service—never has needed repairs. The Page Fence we are selling today is vastly better. It is a genuine High-Carbon, Best Open-Hearth, Steel Wire Fence. Money cannot buy better. Send for a free copy of the "Jubilee Edition" of the Page Catalog.

Page Woven Wire Fence Co., Box A51 Adrian, Mich.

A WELL KEPT-FARM should always have its fences in good order. The fence question can be settled permanently by erecting a **SUPERIOR WIRE FENCE**. No more repairs—no more expense. It always stays tight and will be perfectly good when you are ready to retire and turn the farm over to your children. Also Steel Gates for every purpose. **Prices Low Easy Terms**. Let us send our Free catalog explaining how we can give such extraordinary fence value for so little money. **THE SUPERIOR FENCE CO.** Dept. J Cleveland, Ohio

BALL BEARING AUTOMATIC GATE. IF NOT THE BEST AUTOMATIC GATE ON THE MARKET SEND IT BACK. GUARANTEED THE SIMPLEST, STRONGEST AND EASIEST OPERATED AUTOMATIC GATE ON THE MARKET. Don't I Look Neat? MONEY REFUNDED IF NOT SATISFACTORY IN EVERY WAY. **E. W. ADAMS.** STATION A, TOPEKA, KAN.

RANGER BARB WIRE. HEAVY SINGLE WIRE. STRONG, DURABLE. The only absolutely successful single strand barb wire ever made. **M. M. S. Poultry Fence Saves 50%**. We make the most complete line of Field, Hog, Poultry and Lawn Fencing in the country. Write for our new catalogue. **DeKALB FENCE CO., - DeKALB, ILL.** Southwestern Office and Warehouse, Kansas City, Mo.

15 Cents a Rod. For a 22-inch Hog Fence; 16c for 26-inch; 19c for 31-inch; 23 1-2c for 34-inch; 27c for a 47-inch Farm Fence. 60-inch Poultry Fence 37c. Lowest prices ever made. Sold on 30 days trial. Catalog free. Write for it today. **KITSELMAN BROS.,** Box 14, MUNCIE, IND.

VETERINARY COURSE AT HOME. \$1200 year and upwards can be made taking our Veterinary Course at home during spare time; taught in simplest English; Diploma granted, positions obtained for successful students; cost within reach of all; satisfaction guaranteed; particulars free. **Ontario Veterinary Correspondence School, London, Can.**

30 Lbs. SUGAR Best Granulated 75c

SEND NO MONEY. We will ship you the following goods to your city with the privilege of seeing them before paying the agent \$7.58 and if not found in every way as represented and what you would have to pay your merchant \$12.86 they can be returned to us at our expense. **FREIGHT PAID** if the full amount of cash is sent with order.

	Merchants Price	Our Price
30 lbs Sugar best granulated.....	\$1.80	.75
2 " A & H Soda or our own.....	.20	.10
2 " Corn Starch best quality.....	.20	.10
1 " Pepper Pure Gr. In tin can.....	.40	.20
1 " Cinnamon " " " ".....	.60	.35
4 oz. Vanilla Extract strictly pure.....	.60	.35
4 " Lemon " " " ".....	.50	.30
10 bars Castle & G.P. Tar Soap (1/2 each)	1.00	.60
1 lb. Chocolate Bakers Best.....	.50	.35
1 " Coconut Shells Best.....	.19	.19
1 " Coffee Pure Java and Moca, roasted	2.10	1.60
2 " Tea Y.H.G.P. or Eng. Break best	1.80	1.20
10 bars Soap Lenox or our own.....	.50	.25
3 large cans 1/2 size Mustard Sardines..	.30	.20
3-2 lbs. cans Peas E. J. Finest.....	.36	.20
5 lbs. Prunes choice Cal.....	.60	.35
5 " Rice best Japan.....	.60	.30
5 " Rolled Oats Quaker.....	.30	.10
2 Pkgs. East Foam.....	.10	.05

Price list FREE
 Grocery, Jewelry Merchants Price \$12.86 7.58
 Hardware Etc. Our Price 7.58
 Your saving \$5.28

DEERING MERCANTILE CO.
 60 WABASH AVE., CHICAGO, ILL.

CHAMP CLARK'S KID WON THE BET.

Owing to rapid changes in the weather, there was an early and flourishing crop of colds this season, and as coughs and sneezes were heard, and handkerchiefs came often into play, Champ Clark dropped into the story-telling mood. He is an old newspaper man, and always manifests a kindly interest in the newsboys, and anything that concerns them makes a lasting impression on his memory. He is very proud of their keen wit, and believes that the American newsboy has no equal in repartee or shrewdness.

On the particular morning of the story—in chilly, frosty January, he was waiting on a New York dock while his friend, just over from England, saw to the collection of his luggage. The Congressman thought it a good opportunity to dilate on his favorite theme. The Britisher rather resented his boasting, and said that to his mind the London newsboy was without an equal. "He is always ready with a retort, don't you know, that is as good as the latest in *Punch*. The London newsboys are keen students of human nature—not a detail in a man's appearance is unnoted by them," said the Englishman warmly.

Champ turned his quid to the other side, "You just try one of these New York kids," he said.

A lad approached to sell a paper, and the Londoner promptly opened fire while the boy took an inventory of his customer.

"Now, my boy," said the Englishman, "can you tell me the time by your nose this morning?"

The boy glanced up at the Englishman's aristocratic features, and, smiling serenely, replied: "Ask your own nose, sir; mine ain't runnin'."

The Londoner, somewhat confused, took out his handkerchief, and nothing more on the subject of newsboys was mentioned. Champ retired with the gleam of victory in his eye.—National Magazine.

A NEW EDITION OF "POTATO CULTURE."

The wide demand for "Potato Culture," published for free distribution, has exhausted the first issue, and we are informed that a second edition is now ready for mailing. This is the work of Mr. L. A. Aspinwall, President of the Aspinwall Mfg. Co., and it is not surprising that a treatise from such an authority on this subject is greatly appreciated. Requests for free copies should be addressed to the Aspinwall Mfg. Co., Jackson, Michigan. For thirty years this Company has been recognized as headquarters for potato machinery of all kinds.



CYPHERS INCUBATOR COMPANY
BUFFALO, N.Y.

MANUFACTURERS OF
INCUBATORS, BROODERS,
POULTRY APPLIANCES, FOODS
AND ST. BARNARD SUPPLIES
1898

IT
WILL
NOT
COST
YOU
A
CENT

This Great Book Is Free

It has five long chapters on Feeding Chickens; Laying Records; Incubating; Brooding; and "What the Poultry Business Is." It is full of pictures of Standard-Bred Farm Fowls and Prize Winners; Photographs of the Highest Priced Birds Ever Sold (five fowls for \$7,500), and letters from their Owners; over seventy pictures of the Biggest Poultry and Duck Farms and Experiment Stations; over fifty photographs of Leading Breeders and Experts you have read about but perhaps have never seen; also pictures of some nice flocks of fowls raised by women on the farm.

ARE YOU GOING TO BUY AN INCUBATOR?

If so, this is the one book you should get. It explains fully the New Rules of Fire Insurance Companies; tells about our Newly Invented Electric Hatchers, and our Mammoth Incubator holding 40,000 eggs, and our New 1909 Pattern Insurable Incubators and Brooders.

We pay postage on this great book of 212 pages and give it to you free if you mention the name of this paper when you write. Address nearest office.


CYPHERS INCUBATOR CO.

Buffalo, N. Y.; Boston, Mass.; New York City
 Chicago, Ill.; Kansas City, Mo.; Oakland, Cal.

Ertel's

POULTRY DIARY

is our new book for the use of poultry raisers. Keep account of your eggs, chicks and profits. Our Diary shows how and also tells about our new Incubators. It tells why our prices are so low. The Diary is free. Better write for it today. Tell us if you are thinking of buying an Incubator and what size you want. We pay freight. Geo. Ertel Co., Quincy, Ill.



Early Chicks Make Early Winter Layers.

CHAS. A. CYPHERS

MODEL

INCUBATORS. BROODERS. FEEDS. SUPPLIES
 Safest, Easiest and Best. Factory prices. Free catalogue.

W. J. TODD, 426 N. 6th St.
 Richmond, Va.

Headquarters for Chicken Feeds.

Mandy Lee Incubators AND Brooders

Are the only kind that will give results in every condition of climate and altitude. Endorsed by poultry raisers everywhere. The handsomest, best built and most satisfactory machines on the market to-day.

See the machines or write for catalogue and circulars.

THE IMPLEMENT CO.,
 1302 East Main Street,
 Richmond, Va.

Hatch Chickens By Steam


Stahl's "Excelsior" and "Wooden Hen" Incubators are famous for their hatching records. Perfectly designed, well constructed, satisfactory in every detail—require but little attention. 50 to 600 eggs. Catalogue free on request.



GEO. H. STAHL, BOX 76, QUINCY, ILL.

Ideal The Low Priced Standard Incubator

25 years of experience in it. Tried and proven. Makes results certain. Send for great free book, "Poultry for Profit." 128 pages, practical, reliable. Worth dollars for fine pictures alone. Free. Send today to



J. W. Miller Co., Box 312, Freeport, Ill.

Hatch With the Least Cost Per Chick

That is what we guarantee you can do with the

Invincible Hatcher

Try it and if it don't produce more strong, healthy chicks than any other incubator, regardless of price, send it back. 50-Egg Size Only \$4.00. Same low prices on larger Hatchers, Brooders and Supplies. Write for 176-page FREE catalogue.

The United Factories Co., Dept. X 6, Cleveland, O.



\$6.15 For 1853 Quarter; \$3600 for certain dollar; big premiums paid for many kinds of money dated before 1895. We buy every kind of Stamps, including those now in use. You can make big profits, perhaps a fortune; no interference with regular employment. Send postal for **Free Booklet**. Address, Honey & Stamp Brokerage Co., 160 Nassau St., 1, New York.

GET THE BEST

A Good Spray Pump earns big profits and lasts for years

THE ECLIPSE

is a good pump. As practical fruit growers we were using the common sprayers in our own orchards—found their defects and then invented The Eclipse its success practically forced us into manufacturing on a large scale. You take no chances. We have done all the experimenting.

Large fully illustrated Catalogue and Treatise on Spraying—Free. MORRILL & MORLEY, Benton Harbor, Mich.

IT PAYS TO SPRAY

The Iron Age 4-row Sprayer gives perfect satisfaction. Puts solution just where needed and in fog-like mist. Pump delivers spray under high pressure, thus reaching every part of vine, effectually killing bugs and preventing blight. Has Orchard Spraying attachment. Write for free catalog illustrating this and other Iron Age tools.



Iron Age Four-Row Sprayer

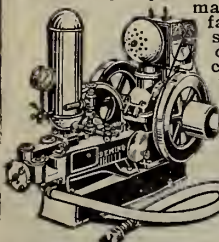
IRON AGE
Nozzle Strainer Prevents Clogging



BATEMAN MFG. CO., Box 1678 GRENLOCH, N. J.

SPRAY PUMPS

for your little garden or big orchard. There are 24 varieties of Deming Sprayers, known wherever used as "The World's Best." They are the most carefully and skillfully hand-fitted pumps made—right there is the main reason they never fail to run easily and smoothly, with little or no wear. Our 1909 catalogue with Spraying Chart free upon request. Add 4 cents postage and get a valuable guide book on Spraying.



THE DEMING COMPANY
715 Depot St., SALEM, OHIO.

DEFENDER SPRAYER



Easiest Working most powerful Brass Spray Pump, Automatic mixer, Brass expansion valves and double Strainer.

Write for illustrated circulars. Agents wanted. J. F. GAYLORD, Box 82, Catskill, N. Y.

Make Money

working for us, to complete your education, buy a home, or start in business Address, P. B. R. MOSS, Chase City, Va.

Always mention The Southern Planter when writing advertisers.

THE TRUTH ABOUT TONICS.

A stock tonic is not a medicine, a cure a remedy, but an aid to the digestive and assimilative processes of nutrition. It is thus a preventive of disease. A rightly compounded stock tonic simply supplies the animal artificially with certain necessary elements for the perfect regulation of the processes of nutrition, just as does the supplying of salt in the same way.

Note that we say a rightly compounded tonic. For either an excess or a lack of certain ingredients depreciates the value of a tonic just as an incorrectly balanced feed lowers its nutritive value.

There is no secret about the composition of the well-known stock tonics. Indeed, most States have laws requiring that the ingredients of the contents be plainly printed on every package.

The exact proportion of certain elements differ in different brands, but the approximate proportions are known to most stockmen, or can be obtained from the National Department of Agriculture, or from the different State Experiment Stations.

The question then arises, why cannot a farmer make his own tonics? He can, just as he can make his own clothing, if he can spend the time, get the correct proportions, and accomplish the most effective combination. For it must be remembered that the right amount of each material simply put together in some sort of a way does not make a suit of clothes—no more does it make an effective stock tonic. Not only must the proportions be correct, but the condition of each ingredient must be right and its consistency such that it will properly blend with all the others. The makers of stock tonics have the proportions and the proper consistency of the elements "down fine," and the thrifty stockman knows that he is not only buying the right material in a reputable stock tonic, but he is also buying the skill and experience it takes to compound the tonic correctly.

ANTITOXIN FOR ALL DOCTORS.

New Regulations Adopted.

Virginia State Health Department will aid in the fight waged on Diphtheria.

The comparative rarity of diphtheria in this community during the present winter, and the generally mild character of the disease, is due, in the estimation of the doctors, to the general use of diphtheria antitoxin by people. The people are beginning to realize, they say, that in this antitoxin they have a remedy which will insure recovery in practically all cases of diphtheria where it is promptly used. Moreover, the use of antitoxin will prevent the appearance of diphtheria in children who have been exposed to the disease.

The chief difficulty in the way of

SPRAYING IS NECESSARY

if you would succeed with your fruit and vegetables. At the first signs of spring, fungus, blight and other diseases and hordes of bugs and slugs make their appearance. Be ready for them. Equip yourself with a

"SUNSHINE" SPRAYER.



Fig. 825—Pump with automatic agitator and two spray leads.

Our "Sunshine" Sprayer is, we claim, the only durable, heavy, first-class Sprayer that can be bought at a price within the reach of small fruit growers. We can furnish them in any size or for any purpose you want.

Write us at once for descriptive circular and prices and don't wait until you need a sprayer, or the heavy rush of business is on. It will be worth many hundred dollars to you to be ready in time.

The Crestline Mfg. Co.
CRESTLINE PUMP WORKS
Crestline, Ohio.

ESTABLISHED 1903

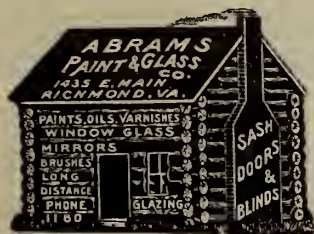
Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manuf'r., 2 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.



Write for Prices.

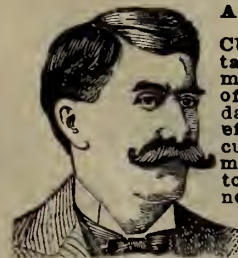


Write Me a Postal For My New Paint BOOKS FREE

Two full gallons free to try—You Pay no Freight to try my Paint.

Let me send you my Books and big Color Cards to select from—all FREE. They tell why my Made-to-Order Paint is better than ready-made or painter-made Paint—tell why I save you money and give you a satisfactory long-lived paint—made fresh to order for the individual user—shipped in cans dated the day it's made—and sold under a \$100-gold guarantee as to its purity. Write me today—just a postal.

O. L. CHASE, The Paint Man ST. LOUIS, MO.
Dept. 133



A Great Discovery. DROPSY

CURED with vegetable remedies; removes all symptom of dropsy in 8 to 20 days; 30 to 60 days effects permanent cure. Trial treatment furnished free to every sufferer; nothing fairer. For circulars, testimonials and free trial treatment

write DR. H. H. GREEN'S SONS, Atlanta, Ga.

WANTED ACTIVE, ENERGETIC MEN

to represent us; profitable, permanent position; hustlers can make big money; exclusive territory, cash weekly advances; complete canvassing outfit free. Teachers, students, farmers, and others find our business profitable. Write immediately for our liberal offer.

W. T. HOOD & CO., Old Dominion Nurseries, Dept DX., Richmond, Va.

CALVES Raise Them Without Milk, Booklet Free.

S. T. Beveridge & Co., Richmond, Va.

the general use of antitoxin has been the high price charged for it by druggists generally. This price placed the remedy beyond the reach of the poor of the community. To prevent this, the State Board of Health, last summer, made arrangements with two of the leading manufacturers of antitoxin whereby it was sold at a very low figure to the medical members of the local Boards of Health for sale to those who could not afford to buy it at the regular rate. Up to the first of January, nearly two million units of antitoxin were sent out by the State Department of Health. At the recent meeting of the State Board of Richmond, it was decided to furnish this antitoxin to all physicians of good standing in the State whether members of the local Boards of Health or not. These physicians can furnish it at cost to patients too poor to buy it at the standard rate, but are not to sell it to other persons. The members of the county boards can, as heretofore, secure the antitoxin for free distribution or for sale to indigent patients.

In this manner it is hoped that the use of antitoxin will be encouraged throughout the State. A physician can now telegraph his order to the State Department at Richmond and can receive the antitoxin by mail or express within a few hours.

Chicago House Wrecking Co., Chicago, Illinois.

Gentlemen:—The car of lumber reached its destination Tuesday night, was unloaded Wednesday, and the men that unloaded it say it is as fine a car of lumber as they ever saw.

I am well pleased and everything was in fine condition.

Thanking you for the prompt shipment, I remain, Respectfully,
(Signed) MRS. E. N. GRAY.

Fence users will be pleased with Kitzelman Brothers' prices—15 cents a rod up. See ad. in this paper and write them to-day for free catalogue.

Kitzelman Brothers, fence manufacturers, Muncie, Indiana, report their sales larger this year than ever before. They sell fence for 15 cents a rod up. It will pay you to get their free catalogue. See their ad. in this issue.

LARGER QUARTERS NECESSARY.

There has been such a constant increase in my business, and such demand for ABSORBINE, that our present equipment will no longer accommodate us. Consequently we are about to move to 75-77 Temple Street and 273 State Street, where orders will henceforth be received. Prompt attention given to correspondence, and all orders filled promptly. I thank you for your past patronage, and solicit a continuance of your orders. W. F. Young, P. D. F., 109 Monmouth St., Springfield, Mass.

AGRICULTURAL LIME.

PLAIN ROCK OR SHELL LIME BAGS OR BULK

SPECIAL FINE HYDRATED LIME FOR DRILLING.

If in the market for any grade and any quantity of

LAND LIME

Write for our pricelist and particulars

T. C. ANDREWS & CO., Inc.

NOBFOLK, VA.

THE TREE PRESERVER.

Save your fruit trees! Kill all San Jose Scale worms, insects, scab or fungi, by spraying thoroughly with

GOOD'S CAUSTIC POTASH SOAP No. 3

It is sure death to all enemies of vegetation. Contains no salt, sulphur or mineral oils to injure or poison the tenderest trees, plants or shrubs. The potash and fish oil are active fertilizers, and enrich the soil. The soap dissolves easily in water, and sprays perfectly. Used and endorsed by State Experiment Stations and by the

U. S. Department of Agriculture 50 lbs. \$2.50; 100 lbs. \$4.50; larger quantities proportionately less.

Write today for free "Manual of Plant Life."

JAMES GOOD

Original Maker, 959 N. Front St. Philadelphia.

Bone Phosphate

Phosphoric Acid	22 1/2%
Equivalent to Bone Phosphate of Lime	50%
Ammonia	4 1/2%

(Guaranteed Analysis.)

A PURE ANIMAL BONE FERTILIZER

In the manufacture of which no Chemicals or Filler are used.
Ton (2,000 pounds) \$28.50
Sack, (200 pounds) 3.00
Sample on request.

RICHMOND ABATTOIR, Richmond, Va.

Box 267. Office Sixth and Cary Sts.

ROCK PHOSPHATE

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



Wanted At Once—A Man
To Make \$100 Per Month Above Expenses

1000 MEN ARE NOW MAKING BIG MONEY with our Medicines, Extracts, Spices, Soaps, Perfumes, Toilet Articles, Stock and Poultry Preparations, Polishers, etc. We are one of the largest importers and manufacturers in the U. S. Our capital and surplus is One Million Dollars. We make over 60 products, all guaranteed. Our factories have over 3 acres of floor space.

WE NOW WANT one man in each unoccupied locality to take full charge of all deliveries to farmers and others from a wagon similar to the above; in short, a man able to take full charge of everything pertaining to our business in his district. Not every man can fill this position nor can we afford to contract with one who is too extravagant or too old or too young. We want to hear from men who have been fairly successful—honest, industrious men who will be satisfied to make not less than

\$100 Per Month Clear Profit

above expenses the first year, \$1800 the second year, and \$2400 the third year.

If you are fairly well acquainted in your locality and you think you can fill the position, lose no time in writing us for full particulars as we are now rapidly filling all vacant territory. We do not want to hear from men under 21 or over 50 years of age, colored people, or women. To get this position a man must be able to furnish 1 or 2 horses to conduct the business, also good business men as references. If you cannot meet these requirements do not write; if you can meet them, write us; you are the man we are looking for. The position pays big is honorable and permanent.

W. T. RAWLEIGH CO. 20 Liberty St. Freeport, Ill.

Heiskell's Ointment
 and
Medicinal Toilet Soap

Do skin eruptions, pimples and blotches spoil your good looks and make you unhappy?

HEISKELL'S OINTMENT will cure such troubles, and when they're cured HEISKELL'S MEDICINAL TOILET SOAP, used daily, will keep your skin like a baby's.

Both are vegetable compounds—one a healer, the other a preserver.

Send a postal for a new booklet of general interest.

JOHNSTON, HOLLOWAY & CO., 405 Commerce St., Phila., Pa.

DAIRY
OUTFIT

A complete outfit for a home dairy, consisting of a 3½ horse-power International Gasoline Engine, one DeLaval Cream Separator, one Davis Cream Separator, one Mason Butter Worker, one 40-gallon Box Churn, 10 Patent Butter Boxes with Ice Chamber, Shafting Hangers, Pulleys and Belting,

J. H. BOELTE, News Ferry, Va.

FUMA 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

FUMA CARBON BI-SULPHIDE

as others are doing. It fumigates poultry houses and kills hen lice.

Edward R. Taylor, Penn Yan, N. Y.

Please mention the Southern Planter.

Sixty acres of strawberries is a pretty considerable patch. This acreage accommodates over six million plants. The owners of these vast fields also have about 700,000 fine young peach trees and nearly 500,000 Apple trees, and Pears and Plums and Quinces and Currants and Cherries in vast numbers.

Of course, they are not farmers, in the strict sense of the term, but nurserymen. Their place is located in the heart of the fertile territory of the eastern peninsula of Maryland, at Berlin, and is known as Harrison's Nurseries. The proprietors are J. G. Harrison & Sons. Mr. Orlando Harrison is the active head of the firm.



ORLANDO HARRISON

The nurseries of this firm cover more than 1,000 acres, all under cultivation, and personally supervised by a member of the firm. The business has been built up from a comparatively small beginning, in about 25 years, on the quality of the stock supplied. Customers of Harrison's Nurseries, in every state of the Union, gladly testify that they have secured "the best only" when they have bought of this Maryland firm. Harrison's Strawberries and Peaches, especially, have a national reputation, and in other fruits, as well as trees and shrubs for ornamental planting, the quality of the stock they sell is equally good.

This year Harrison's Nurseries have published a catalogue of most unusual character. Every illustration in it is from a photograph, and conveys an accurate idea of the actual appearance of the fruits, etc., that the book offers. Every description has been rewritten, with the purpose of avoiding all exaggerations. All who have seen it commend this book as the most practical and honest nursery catalogue yet published. The covers are in full colors—natural colors. On the front page is shown a cluster of Klondike Strawberries, natural size, not as some artist thought they ought to have grown but as the photographer found them growing. On the back there are two specimens of Crawford's Late Peach and two of Stayman's Winesap apples—likewise in the colors of nature. The colors are perfect, and the pictures lose nothing in artistic quality by reason of the fact that they are true to life.

A postal card addressed to Harrison's Nurseries, Box 608, Berlin, Md., will bring you a copy of this catalogue by return mail. The great cost involved in its production made it necessary for the edition to be limited, so write before the books are gone.

Amherst Co., Va., Nov. 19, '08.

I have been reading the Southern Planter for a number of years and cannot do without it.

J. D. PENDLETON.

Highland Co., Va., May 20, 08.

The Southern Planter is the best farm paper I have ever taken. I feel I could not do without it.

W. H. WILLIAMS.

Artistic Home Papering at 1-3 Cent Lz
 We'll show you how to paper a room yourself—we'll send you plain, practical directions. We'll show you how to buy bright, attractive, up-to-date papers at manufacturers' prices. You'll save at least two-thirds of your usual papering bills. These rooms will cost you only what one did formerly. Samples and instructions free. Write for them today.
PENN. WALL-PAPER MILLS
 Dept. S Phila.

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.

Endorsed by U. S. Department of Agriculture.

Carbolineum Wood Preserving Co.,
 346 West Broadway, New York.

PRODUCE YOUR OWN HONEY.

Complete Outfit \$11.

5 Bee Hives (flat)....	\$8.50
250 Sections	1.25
1 lb. Comb Foundation ..	.60
1 Smoker50
1 Bee Veil25

\$11.10

W. E. TRIBBETT, Staunton, Va.
 (State Agency A. I. Root Co.)

PATENT WHAT YOU INVENT!

CONSTANT DEMAND FOR GOOD INVENTIONS
 Our free books tell what to invent and how to obtain a Patent. Write for them.



Send sketch for free opinion as to patentability. We advertise patents for sale free. Highest class of services. Ask for our references.

WOODWARD & CHANDLEE,

Registered Attorneys,
 1237 F. Street, Washington, D. C.

PATENTS SECURED OR FEE 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.

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.

"PRACTICAL FARMING"

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.

ANNOUNCEMENT

Owing to the many letters received, relative to crop rotation and formulae for the home mixing of fertilizer, and the amount of time and labor necessary to intelligently indite my replies, I have determined to give up some other work, and devote some time at regular intervals to correspondence of this character, making a nominal charge, graduated to accord with my earning capacity at other lines of work elsewhere.

I, therefore, invite my friends, the public to write me freely concerning Agricultural Matters. A statement of the value of the time spent in framing my replies will accompany each letter, and the amount mentioned be due me only when my correspondent is satisfied of its value to himself. **PERCIVAL HICKS,**
North, Mathews Co., Va.

FARMERS

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, CHESTER, VA.
Organized January 9, 1899.

FIRST NATIONAL BANK
Richmond, Va.

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

Capital \$1,000,000.00
Surplus, 800,000.00
Deposits, 6,000,000.00

JOHN B. PURCELL, President.
JNO. M. MILLER, Jr., Vice-Pres. and Cashier.

A Savings Department for the Thrifty.

W. J. T.

SCRATCH FEED.
MASH FEED.

Complete Egg Ration, \$2 per 100 lbs.
EGGS \$1.50 PER SITTING 15
\$7.50 PER 100

From choice matings pure-bred stock. Barred Plymouth Rocks, Partridge Wyandottes, White Wyandottes, R. C. and S. C. Rhode Island Reds, Black Langshans, White and Brown Leghorns, Black Minorcas, Light Brahma, P. H. Games, Mammoth Bronze Turkey eggs, 40c. each. White Pekin Ducks, \$1.50 setting of 11.

WALTER J. TODD,
426 N. 6th St., Richmond, Va.

WE PAY \$96 A MONTH SALARY

and furnish rig and all expenses to introduce poultry and stock powders; new plan; steady work. Address, **BIGLER COMPANY, X378, Springfield, Illinois.**

HELPS TO HOME COMFORT.

How a Portable Heater Saves Time and Money.

There are many houses whose weatherside rooms are cold in winter regardless of how hard the furnace is driven. There may be sudden changes in the weather, or cold halls that cannot be heated effectively with the regular heating apparatus. A portable heater such as the Perfection Oil Heater will overcome these conditions perfectly.

The "Perfection" is an oil heater, handsomely finished in japan and nickel, and is equipped with a patent burner and smokeless device which prevents the flame being turned too high or low, and the heater from smoking.

With the "Perfection" at hand you can in a few minutes warm any room or hall in the house that happens to be cold. It will supply sufficient heat when it is too warm to run the regular furnace and too cold to do without heat entirely, and will prove a great factor in improving the comfort and, furthermore, saving trouble and expense in any household.

At night there is nothing that will add more to the real comfort and coziness of a home than the Rayo Lamp. It gives a clear, steady light, perfect for reading or sewing, or any purpose, and suitable for any room. It has latest improved burners and is an unusually safe, clean lamp for household use. Being made entirely of metal, except the shade, the danger of carrying a glass lamp about is eliminated by its use.

Perfection heaters and Rayo lamps are sold by all dealers.

WHICH MANURE SPREADER?

Most spreaders are alike in many particulars. But there is this great essential difference between the old line Success Spreaders, made at Syracuse, N. Y., and other spreaders. The Success Spreader is roller-bearing. Other spreaders are not.

The advantage which the Success Spreader thus enjoys is plainly manifest. Spreading manure by machinery is dreadfully heavy work. It is hard on the machine and hard on the team. The roller bearings in the wheels and in the operating machinery take off the friction and the wear and the strain from the machine and they take a great part of the pull off the team. They make the machine light running and they certainly prolong its life.

The above is just one of the good points of the old original Success Spreader. It is deserving of great emphasis. No one going to buy a spreader can afford to ignore it. There are other great Success features. It is the original spreader, and it has been over thirty-one years working them out. It has always been in the lead in adopting approved devices. We know of no point in which the Suc-

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.
W. H. MACNAIR, Tarboro, N. C.

HACKETT'S GAPE CURE
KILLS THE WORM AS WELL AS THE GERM

THE NEW WAY

T. C. HACKETT
REGISTERED HILLSBORO, MD.

HACKETT'S GAPE CURE.

It's a powder; the chicks inhale it; goes right to the spot. Kills both worm and germ; whole brood treated at once. Full size package by mail, 35c. Dealers supplied by the jobbing trade. Let me tell you the one nearest. Very truly,

T. C. HACKETT, Hillsboro, Md.
Peter Van Schaack & Sons, Chicago; Bowen, Sunderlin & Co., Baltimore, Md. Geo. H. Hastings & Co., Atlanta, Ga., Distributors.

PROTEIN

Fed now to the hens that are to produce your eggs for hatching will insure strong, healthy chicks.

"RARVA" MEAT MEAL

85 per cent. Protein, 7 per cent. Fat. Will increase the fertility of the eggs and is a most economic appetizing and wholesome ration to rapidly mature the early broiler.

Sample on request.
Sack, 100 lbs. - \$3.25.

RICHMOND ABATTOIR,
Box 267, Dept. M, Richmond, Va.

Send for the "Rarva" Booklet.



NEWTON'S Hoars, Cough, Diarrhoea and Indigestion Cure.
A Veterinary Remedy for wind, throat and stomach troubles. Strongly recommended. \$1.00 per can, of dealers, or exp. prepaid. The Newton Remedy Co., Toledo, Ohio.

Tell the advertiser where you saw his advertisement.

You Can't Talk
it too strong. **What?**

Gombault's
Gaustic Balsam
As a Liniment
For the Human Body

Springfield, O., Sept. 19, 1904.
Lawrence-Williams Co., Cleveland, O.—Lewis Evelisizer, Urbana, R. F. D., a farmer, had a bad cancer on back of his hand. When I first saw it he was on his way to have his hand amputated. I persuaded him to first try GOMBAULT'S GAUSTIC BALSAM, which he did, and on second application could rest well at night—the first for weeks. In less than three months he was at work on the farm. He will certify to this statement over his signature. Then Mr. Jenkins, storekeeper and postmaster at Seth, O., had a bad cancer on his cheek-bone. I saw him at a grange meeting and sold him to use CAUSTIC BALSAM twice a day, rubbing it in for five or ten minutes. In three months it was healed over and is now all sound. These two are all that I have the address of just now. I have had CAUSTIC BALSAM used on old shin sores. One man had walked with crutches for more than a year, and several pieces of bone had come out. I persuaded him to try CAUSTIC BALSAM, and today you would not know he was ever lame. Then, it is a sure cure for piles, using it with sweet oil. I could tell of dozens of cases where I have induced different ones to use CAUSTIC BALSAM. I have been the means of more than fifty bottles being bought, because I know just what it will do. You can't talk it up strong enough. I wish you success.

R. L. HOLMAN,
In charge Co-operative Work of Ohio State Grange.
Price \$1.50 per bottle. Sold by druggists, or sent by us express prepaid. Write for Booklet H.
The LAWRENCE-WILLIAMS COMPANY, Cleveland, O.

Fistula
and
Poll
Evil

Any person, however inexperienced, can readily cure either disease with

Fleming's
Fistula and Poll Evil Cure
—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; 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

Fleming's Vest-Pocket
Veterinary Adviser.
Best veterinary book for farmers. Contains 192 pages and 69 illustrations. Durable bound in leatherette. Write us for a free copy.
FLEMING BROS., Chemists,
280 Union Stock Yards, Chicago, Ill.

KENDALLS SPAVIN CURE

FRIEND OF THE HORSE

No other remedy so sure and speedy for Curb, Splint, Ringbone, Spavin, Lameness.

"I have used your Spavin Cure and found it the greatest horse medicine I have ever seen."
W. A. Varney, Canada, Ky.

World's greatest liniment for man and beast. At all druggists. \$1 a Bottle; 6 for \$5. Get the genuine. The great book, "Treatise on the Horse," free at drug stores, or write

Dr. B. J. Kendall Co.,
Enosburg Falls,
Vt.

Please mention the Southern Planter.

cess Spreader lags behind others in what makes for right and proper spreading of manure.

THE LAND CONTAINS WEALTH.

Beneath the surface the extent of these resources should be determined in every neighborhood. Under any farm or any rugged hill, there may be found great quantities of mineral which should be mined, as people are in need of coal, oil, gas, pure water, etc., and the laboring people need the employment. A group of farmers and prospectors should combine in an effort to have a permanent development organization in every township or school district. By organizing a corporation for this purpose the burden of loss would not fall on anyone alone and the sure profit in some cases would go to the stockholders in equal measure. Our readers should correspond with the American Well Works, Aurora, Ill., in regard to procuring drilling machinery, and ask for catalogue.

BLUE RIDGE BERKSHIRE FARMS.
ACQUIRE VANDERBILT'S
BERKSHIRES.

Biltmore Farms, as the live stock department of Mr. Vanderbilt's estate is designated, have discontinued the breeding of hogs, and have recently sold their fine Berkshires to the Blue Ridge Berkshire Farms, of Asheville, N. C.

It has not been stated what prices was paid for the pigs, but it was probably a good one, as the Biltmore Berkshires commanded very big prices, being descendants of the best imported pigs that money could buy, often prize-winners in Europus.

At the annual sales which have featured the live stock department of the estate purchasers came from all parts of the country, and bids ran from \$100.00 to \$700.00.

This addition to their already great herd, gives the Blue Ridge Berkshire Farms one of the largest and most attractive herds of Berkshires in the country.

"BROILERS" ALWAYS IN STOCK.

Money-making possibilities in raising "broiler" chickens have never been greater than to-day. The demand throughout the country exceeds the supply. The market is always ready to pay the highest rates. Hence, the profit that comes to the chicken raiser who uses the economical incubator and hatches his stock so that they will be ready for market when prices are best.

From March until May rates are high, and the poultrymen use the incubator exclusively for hatching for this season. It makes them independent of the hen, and enables them to regulate their supply perfectly.

Most large breeders use the incubator almost exclusively, but many

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), Conjunctivitis and Cataract, Shying horses all suffer from diseased eyes. A trial will convince any horse owner that this remedy absolutely cures defects of the eye, irrespective of the 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, postpaid on receipt of price.

Visio Remedy Ass'n., 1939 Wabash Ave., Chicago, Ill.

CURE THE SORE
ON
YOUR HORSE

Work him while doing so if you have to—but a day or two rest is better—yet in either case

WILSON'S
GOLDEN SUCCESS
HEALING POWDER

Will actually heal quickly and permanently any Collar or Saddle Galls, Open Sore, Cuts, Burns, Mud Scalds, Scratches, Grease Heel or any wound on Horse or Cattle. A purely antiseptic powder, and with each package goes the endorsement of six hundred physicians.

Send twenty-five cents in stamps to
TRY ONE
PKG.
GILBERT BROS. & CO.
9-11-13 N. HOWARD ST.
BALTIMORE, MD.

And receive a package by mail.

Every horse owner should have it.
ASK YOUR DEALER FOR IT HE MAY HAVE IT



Seldom See

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat.

ABSORBINE

will clean them off without laying the horse up. No blister, no hair gone. \$2.00 per bottle, deliv'd. Book 8 D free. **ABSORBINE, J.K.**, for mankind, \$1. Removes Painful Swellings, Enlarged Glands, Gout, Weas, Bruises, Varicose Veins, Varicosities, Old Sores. Allays Pain. Book free.
W. F. YOUNG, P. D. F.,
109 Monmouth St., Springfield, Mass..



Distemper

Cured by the use of **DR. CRAFT'S DISTEMPER AND COUGH CURE**. Endorsed by leading breeders, turfmen and farmers. Send today for a bottle or get it from druggist. 50c and \$1.00. Guaranteed to cure. Your money back if it fails. Send for free booklet today.

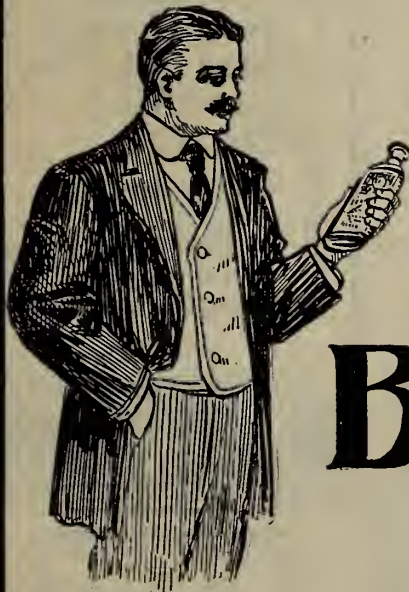
WELLS MEDICINE CO.
Lafayette, Indiana

HORSES

Going Blind. Barry Co., Iowa City, Ia. Can cure.

Always mention The Southern Planter when writing advertisers.

YAGER'S CREAM CHLOROFORM LINIMENT



FOR
MAN
OR



BEAST

THE UP-TO-DATE REMEDY

and the Liniment universally used by all well informed people, recognized as the most wonderful and most certain of results for use in the Home, Stable or Barn. For general use it is the best of all. Especially valuable for Rheumatism, Sprains, Aches, Pains, etc. Prevents Croup, Pneumonia and La Grippe. Sold Everywhere--25 cents.

GIVE IT ONE TRIAL—FOR MAN OR BEAST

PREPARED ONLY BY

GILBERT BROS. & CO., Inc., Proprietors, BALTIMORE, MD.,

Dr. Jos. Haas Hog Remedy

Used by Breeders and Feeders for 31 years to arrest and prevent hog diseases. 25 lb. cans, \$6.75. 12½ lb. cans, \$3.75. Cartons, \$1.50 75c. and 25c. Send for our 96 page booklet 'Hogology' free.

Use Haas-Oleum best coal tar animal dip and general disinfectant. Gallons, \$1.25; 5 gals. \$5.

Stockton, tonic for horses, cattle and sheep, 25 lb. pails, \$3.50, 100 lb. drums, \$12.00.

20th Century Poultry Tonic. Cartons 25c., 50c., and \$1.00; 25 lb. pails \$3.50. Free goods to cover transportation on all shipments.

Send for our Special Offer.

DR. JOS. HAAS REMEDY CO.,
112 So. Penn St., Est. 1877. Indianapolis, Ind.



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.

O. K. STOCK FOOD CO.,
651 Monon Bldg., Chicago.

Cow Peas!

Clay, Black, Wonderful, Whippoowill. Mixed and other varieties.

SOJA OR SOY BEANS,

Canada Field Peas,

Millet, Buckwheat, Etc., Etc.

Write for prices to headquarters.

WALLERSTEIN PRODUCE CO.,

Richmond, Va.

JOUANNET'S GIANT ARGENTEUIL ASPARAGUS

Are the Best.

Price: 100 Roots \$1.00; 1,000 for \$5.00.

JOUANNET'S CABBAGE PLANTS

Give Satisfaction. All Leading Varieties. Price, 1,00 for \$1.25; 5,000 and over, \$1.00 a 1,000.

SPECIAL PRICES ON LARGE LOTS.

Everything shipped from Charleston, S. C. Cash with order! Please.

ALFRED JOUANNET.
Mount Pleasant, S. C.

Tell the advertiser where you saw his advertisement.

smaller chicken raisers still stick to the mother hen, principally because they believe that the cost of an incubator and its upkeep is beyond their means. How incorrect is this idea, is shown by the low price of the Stahl Excelsior and Wooden Hen Incubators, and the low cost of maintenance.

For years Geo. H. Stahl, of Quincy, Ill., has made incubators—thousands and thousands of them—with always the thought of reasonable prices in his mind.

Some valuable and interesting information on incubator hatching may be had free by addressing George H. Stahl, Quincy, Ill.

A FATHER WHO IS JUSTLY PROUD OF HIS BOY.

The "Waterloo Boy" keeps on growing. That's what the father of the "Boy" tells us, and here's a father that tells the strict truth about his boy—"The Waterloo Boy." He sticks so close to the truth in what he says that he is willing to let anybody adopt the boy for thirty days, and prove his claims.

Here is a picture of the father, Mr. George B. Miller, President of the Waterloo Gasoline Engine Company, and you will find a picture of his fine "Waterloo Boy" on another page of



this issue. We have just heard from Mr. Miller. He tells us that his company is away behind with their orders, but they have made arrangements to increase the size of their plant sufficiently to enable them to more than double their present output. They are making and shipping twenty complete Waterloo Boy Gasoline engines daily. They employ 250 men, and are running day and night shifts. When the new additions are complete their foundry will be 80x300 feet, their machine shop 140x300 feet, and fifty instead of twenty Waterloo Boys will go out each day for thirty days absolutely free trial.

Seeds

In any quantity. Highest quality. Prompt delivery. Our price list giving complete information, prices, varieties, &c., FREE upon request.

**Clover Seed,
Grass Seed,
Millet Seed,
Seed Grain,
Seed Potatoes,
Cane Seed,
Etc., Etc.**

Write to-day.

S. T. Beveridge & Co.
1217 E. Cary St.,
RICHMOND, - - VIRGINIA



COTTON SEED and COW PEAS

1,000 bushels Columbia Cotton Seed at \$1 per bushel; 1,000 bushels mixed cow peas at \$1.25 per bushel, f. o. b. here.

Columbia cotton was originated by the Plant Breeding Bureau U. S. Department of Agriculture. Lint 1¼ to 1½ in. Productive as most short staple varieties. Second in yield and first in money value at S. C. Experiment Station, 1907. Brings good premium over short cotton.

J. L. COKER & CO., Hartsville, S. C.
Reference: Dun and Bradstreet.

STRAWBERRY PLANTS.

Forty varieties. My plants give perfect satisfaction everywhere. For 30 years we have been growing and selling plants. Second-crop seed potatoes, choice seed corn, asparagus roots, Barred Rock Eggs. Farms for sale. My free catalog gives full and complete description and price of stock. Buy the best and save money. Write to-day.

JOHN W. HALL, Marlon Sta., Md.

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



BILLIONS OF STRAWBERRIES

Big and sweet and good—will be grown from the great stock of plants that are now ready at Harrison's Nurseries. Thousands of our customers of the past 25 years know that our Strawberry plants are the best, but we want to prove this fact to other thousands who do not know how we can help with pedigree plants.

We Will Send You Free, a Book which tells all about the largest and best assorted stock of Strawberries to be found in America. It also describes and illustrates our complete line of good Fruits and Ornamentals. We are proud of this book; it tells the truth and has been made right. It cost a lot of money, but you can have it free. **HARRISON'S NURSERIES, Box 214, BERLIN, MD.**

FERRY'S SEEDS

Nobody can know everything. To become expert means to specialize. We are specialists in producing the best flower and vegetable seeds. In 52 years we have become experts. Sow Ferry's Seeds and reap the results of our care. For sale everywhere. Read our 1909 catalogue and profit by our experience. Sent free on request. Address **D. M. FERRY & CO., DETROIT, MICH.**

ALMO STRAWBERRY

The most prolific variety; often bears a quart of fruit to the plant. **Keiffer Pear and Elberta Peach trees, Ensilage Corn, Soja Beans.** Write for circular and prices to-day, this ad will not appear again. **E. W. JONES NURSERY CO. Woodlawn, Va.**

SEED BARLEY 60 cts. a bu.

See Salzer's catalog page 129. Largest growers of seed barley, oats, wheat, speltz, corn, potatoes, grasses, clovers and farm seeds in the world. Big catalog free: or, send 10c in stamps and receive samples of barley yielding 173 bu. per acre. Billion Dollar Grass, Oats, Speltz, etc., easily worth \$10.00 of any man's money to get a start. Or, send 14c and we add a sample farm seed novelty never seen by you before. **THE SALZER SEED CO., LaCrosse, Wis.**

SEED CORN
"ALBEMARLE PROLIFIC."
The finest sample I have ever grown. Book your orders now. Write for prices, stating quantity wanted.
ARROWHEAD STOCK FARM,
Sam'l B. Woods, Prop.,
CHARLOTTESVILLE, VA.

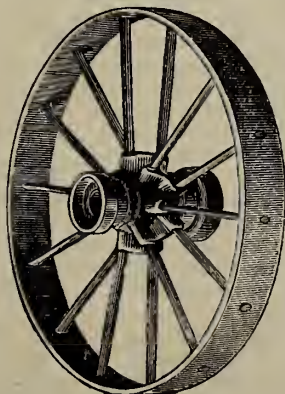
FOR SALE
Cow Peas and Soja Beans
Simpkins' Prolific and King's Improved Cotton Seed, Cane Seed, Millet, Sweet Potatoes, Etc. Send for FREE Bulletin No. 29
HICKORY SEED CO., Hickory, N. C.

Tell the advertiser where you saw his advertisement.

THE WIDE-TIRED HANDY WAGON.

About twelve years ago when the low wheel, wide-tired Handy Wagons first began to attract serious attention the Missouri Agricultural Experiment Station, at Columbia, Mo., became interested in wide tires, and made some experiments with the following results:

"Numerous tests of the draft of wide-tired wagons have been made at this station during the past two years, on macadam, gravel and dirt roads in all conditions, and on meadows, pastures and plowed fields, both wet and dry. The draft has been determined by means of self-recording dynamometers. The net load was in every trial the same, viz.: 2,000 pounds. Contrary to public expectation, in a large majority of cases the draft was materially less when tires six inches in width were used, than when the tests were made with tires of stand-



ard width—1 1/2 inches. A summary of some of these results follows:

"1. On macadam street, as an average of the two trials made, a load of 2,518 pounds could have been hauled on the broad tires with the same draft that a load of 2,000 pounds required on the narrow tires.

"2. Gravel Roads. In all conditions of the gravel road, except wet and sloppy on top, the draft of the broad-tired wagon was very much less than that of the narrow-tired wamon. Averaging the six trials, a load of 2,482 pounds could be hauled on the broad tires with the same draft required for a load of 2,000 pounds on the narrow tires.

"3. Dirt roads. When dry, hard and free from ruts and dust, 2,530 pounds could have been hauled on the broad tires with the same draft required for 2,000 pounds on the narrow tires. On clay road, with mud deep and drying on top and spongy underneath, a large number of tests showed uniformly favorable to the broad tire. The difference amounted to from fifty-two to sixty-one per cent.

"A large number of tests on meadows, pastures, stubble land, corn ground and plowed ground in every condition, from dry, hard and firm to very wet and soft, show without

SEEDS

We are headquarters for Superior Seeds of all kinds.

- Grass and Clover Seeds
- Garden and Flower Seeds
- Seed Potatoes
- Onion Sets
- Cow Peas
- Field Beans
- Seed Oats
- Seed Corns
- Vetches
- Rape

And all seeds of the highest quality and germination.

Also:

POULTRY FOODS
AND
SUPPLIES

FERTILIZERS, ETC.

Southern Agents for the Celebrated Cornell Incubators and Brooders.

Write to-day for our free Catalogue and Price List.

DIGGS & BEADLES,

The Seed Merchants,
1709 E. Franklin St.,
RICHMOND, VA.

Your Correspondence Solicited

CROPS that PAY

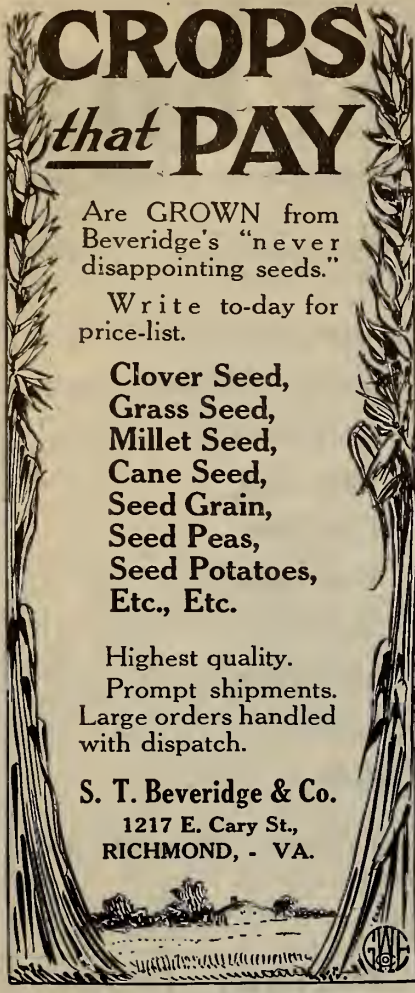
Are GROWN from Beveridge's "never disappointing seeds."

Write to-day for price-list.

**Clover Seed,
Grass Seed,
Millet Seed,
Cane Seed,
Seed Grain,
Seed Peas,
Seed Potatoes,
Etc., Etc.**

Highest quality.
Prompt shipments.
Large orders handled with dispatch.

S. T. Beveridge & Co.
1217 E. Cary St.,
RICHMOND, - VA.



PURE- BRED Boone County White Seed Corn

This corn, grown and handled especially for seed purposes, is offered at the following rates which, in view of the expense of selecting, curing, sorting and testing, are as low as can be made to allow a reasonable margin of profit. Boone County White Corn won all premiums at Va. State Fair, 1908.

One bushel on cob \$2.25; shelled, \$1.75.
10 per cent. reduction for 10 bushels and over; f. o. b. here.

C. U. GRAVATT, M D., Port Royal, Va.

SEED CORN

I offer a choice lot of carefully bred and selected Seed Corn, yielding as much as ninety bushels per acre. Also a choice lot of Cocke's Prolific Ensilage Seed Corn.

Write for prices, stating quantity.

J. B. ANDREWS,
Drawer 762, Roanoke, Va.

BOONE COUNTY

White Seed Corn

Thought by some to be the best sample at State Corn Show; 52 to 60 ears to bushel, 50 bushels to acre on poor land. Write for prices.

W. S. GUTHRIE, Troutville, Va.

a single exception, a large difference in draft in favor of the broad tires. This difference ranged from seven-teen to 120 per cent.

"These statistics throw a strong light upon the question of draft, and make distinctly in favor of the employment of wide tires. There is little reason to doubt that the opinion of practical teamsters would support the same proposition. Perhaps it would be better to provide for a gradual adoption of wide tires, but that they are certain to come cannot be well doubted."

The farmer can now take his choice of several ways to get a Low Down Handy Wagon. He can purchase a set of steel wheels of any size, with any width of tire, to fit his farm wagon, and by changing his wheels can have a Low Down Handy Wagon or a high wagon as he pleases. These wheels sell for from \$10.00 to \$15.00 per set, according to size and width of tire. The most popular sizes are wheels 26 inches in diameter in front and 32 inches in the rear, with tires 4 inches wide, 3-8 inch thick. These wheels sell for about \$12.00 per set of four. The tires are furnished plain or grooved at the same price. Any of the manufacturers of these wheels will send a diagram and full explanations for measuring your skeins.

He can buy a Low Down Handy Wagon complete for from \$23.00 to \$30.00.

For farm purposes it is easy to calculate the saving that these wagons accomplish. It is conceded that they will haul from twenty to fifty per cent. more of a load on farm land than can be hauled on the high wagons with narrow tires. It is also conceded that one man with a low wagon can practically load and unload as much produce in a day as two men can handle with a high wagon, and as practically all farm produce is hauled more or less, the saving in a year's time is a large item, in a case of this kind where the hauling goes on every day.

DISTEMPER MAY BE PREVENTED.

It may be also cured; but it is economy to use the tonic in the feed two or three times a week, Craft's Distemper Cure, and thus save the use of the horse or the dog, and prevent decline of flesh of the sheep. This remedy is guaranteed, and its cost, if it fails, will be refunded by the druggist or the party who supplies it. The advertisement in our columns gives particulars. This is an old, reliable, tested and tried preventive, and cure already familiar to many of our readers.

Pulaski Co., Va., Feb. 3, '09.

We like the Southern Planter very much and cannot well do without it.

R. B. MORGAN.

SEED CORN

The Excelsior—A Pedigreed Corn.

Eight generations in ear row breeding plots under most intensive methods known in the breeding up of corn has produced in my Excelsior, a corn of greatest productivity and perfection. In a variety test plot of 35 leading varieties of corn, conducted under the supervision of the Md. experiment station, the Excelsior far out-yielded all other varieties. At the Maryland State Corn and Wheat Show, held in Baltimore December, 1907, Excelsior won 1st prize in every class for white corn. Also the Bolgiano Cup as sweepstake prize for the best corn, any color, in the show. Again last December (1908) did Excelsior sustain its reputation at the Maryland State Corn Show, winning over three-fourths of all prizes for white corn. While bred for highest yields, it is also a most perfectly typed corn.

Free Corn Booklet describing methods employed in its production. Highest professional references. Write to-day to

W. Oscar Collier, Corn Specialist.
Easton, Maryland.

Try Our

SEEDS

Quality the best, with prices to suit all.
Write for our Special price list.

CHAS. F. GROSSMANN,

Seed Grower & Merchant,
PETERSBURG, VA.

SEED CORN WARNER'S GOLD STANDARD STRAIN NUMBER 16

This is the earliest and highest yielding strain of the highest yielding variety ever produced. This strain No. 16 represents the results of the newest and most perfect system of corn breeding ever devised.

FREE Circular giving prices, and my methods of corn breeding. Write to-day to

H. W. WARNER, Corn Specialist.
Easton, Md.

CLOVER SEED

Absolutely Pure, No Weeds.

Ex. Gov. Hoard of Wisconsin, from 30 acres sown to Salzer's 20th Century Alfalfa, harvested within 24 weeks after seeding \$2500.00 worth of magnificent hay, or at the rate of over \$80.00 per acre. Big seed catalog free: Or, send 10c in stamps for sample of this Alfalfa, also Billion Dollar Grass, Oats, Wheat, Barley, etc. Or, send 14c and we add a sample farm seed novelty never seen before by you.

THE SALZER SEED CO., LaCrosse, Wis.

Campbell Co., Jan. 21, '09.

I have been a subscriber to the Southern Planter for ten years and feel now that I cannot do without it.

CHAS. P. SHANER.

SPECIAL NOTICE

Farmers and Gardeners who can grow to advantage one or more acres of the following seeds under contract the coming season are requested to communicate with us. In writing, please state your previous experience in growing the crops you desire to grow:

**BUSH LIMA BEANS,
POLE LIME BEANS,
CANTALOUPE,
WATER MELONS,
CUCUMBERS,
SOJA BEANS.**

Special stocks of Blackeye Peas. We also desire to place some large acreages of the principal varieties of

FIELD CORNS

with reliable farmers. Parties who are in position to undertake to grow any of these seeds are requested to communicate with us.

T. W. WOOD & SONS,

Seedsmen,

Richmond, Va.

NEW WARD BLACKBERRY

ONE OF THE BEST.

Fine stock of plants for spring delivery. Send for descriptive circular of the Ward. For other nursery products, send for general price list.

FRED. SHOOSMITH, Chester, Va.



FREE To prove that **Blizzard Belt Evergreens** will grow in all parts of the country we offer to send 6 Fine Spruces $\frac{1}{4}$ to $\frac{1}{2}$ ft. tall free to property owners. Wholesale value and mailing expense over 30 cents. To help, send 5 cents or not as you please. A postal will bring the trees and our catalog containing many colored photo plates of our choice Blizzard Belt Fruits. Write today. The Gardner Nursery Co., Box 105, Osage, Ia.

"Feeds and Feeding"

AND

The Southern Planter

for only \$2.25, including delivery of the book. This is Professor Henry's great work on Feeds and Feeding Stock and is the recognized standard everywhere. Every one with half dozen head of stock should have it.

Southern Planter,

Richmond, Va.

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

THE AMERICAN MANURE SPREADER.

Long practical experience and ample facilities, in any line of manufacturing, are destined to bring the best results. Perfecting one machine year after year, and being in close touch with the latest improvements on all machines makes it possible for a wide-awake manufacturer to produce the acme of perfection in his own machine.

This is true in the case of The American Harrow Company, of Detroit, Michigan, manufacturers of the celebrated

AMERICAN MANURE SPREADERS.

This company has been manufacturing Manure Spreaders and other lines of farm implements for the past twenty-seven years. They have made a study of and have employed experts on the subject of fertilizing for years. They know the conditions that exist on all kinds and classes of farms, from actual investigation—they have experimented with their machines under all conditions—and they have perfected the various sizes and styles of their American Manure Spreader to a point where this machine will do perfect work on any farm, no matter what the conditions.

Do not confuse the American Harrow Company with any of the catalogue "mail order" houses who buy up the machines they sell from some other factory. Remember that The American Harrow Company are themselves the manufacturers of their machines—that they have made a life-long study of farm implements of all kinds—and that they have experts in their employ all the time who make a study of fertilization and who are competent to give you any advice you may need on this important question. They issue a handsome catalogue for 1909, giving prices direct, and with this catalogue they send other literature that will give you full information about the most practical Manure Spreader to purchase. They have been advertising with us for years, and we know of thousands of satisfied customers that they do business with every year. Their address is, The American Harrow Company, Hastings street, Detroit, Mich.

SILAGE FOR SHEEP.

Silage is looked upon with great favor by sheep men, says Prof. Wool, in his book on silage; sheep do well on it, and silage-fed ewes drop their lambs in the spring without trouble, the lambs being strong and vigorous. Silage containing a good deal of corn, is not well adapted for breeding stock, as it is too fattening; for fattening stock, on the other hand, much corn in the silage is an advantage. Sheep may be fed a couple of pounds of silage a day and not to exceed five or six pounds per head. Prof. Cook re-

RARE BARGAINS

IN

Northern Virginia Farms

A Few Specimens:

No. 162. Contains 280 acres—80 acres in timber, balance cleared. This land is a splendid quality of grass, hay and corn land. It is smooth and level. Fronts on a good level road $3\frac{1}{2}$ miles from station. Farm is very well fenced and watered by streams with a good well at the house. About one acre in orchard, apples and peaches. Buildings: A new six-room house, barn 30x40 for horses and cows, corn crib and hen house. 75 acres of this land is in meadow. This is a bargain for a progressive man. Price \$5,000.

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. 176. Contains 346 acres, about 70 acres in timber, mostly oak and hickory, situated 1 mile from store, school church, shops, etc.; 6 miles from R.R. station. This land is a little rolling and is a fine quality of chocolate clay soil, excellent for grass and grain of all kinds. Good orchard of about 200 apple trees. Farm is well fenced and watered by never failing streams. Spring in every field. Improvements. A good $2\frac{1}{2}$ story dwelling with 8 large rooms, 4 attic rooms, basement, barn, 40x70, in good repair, other outbuildings, all in good condition; farm is located on good road, and about \$10,000 is subscribed to macadamize this road to the railroad station. Price per acre, \$30.00.

No. 193. Contains 156 acres, smooth land, chocolate clay soil, with good stiff clay subsoil, just rolling enough to drain well, 30 acres in good timber, balance cleared, watered by running stream, very well fenced. In good neighborhood, located 7 miles from railroad station, in Loudoun county, sufficient fruit of all kinds for family use, 5-room house in fair repair, other small out-houses in good repair. Price \$3,000.00.

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.

Send for my Complete List,
Wm. Eads Miller,
HERNDON, VA.

Selected Offerings in NORTHERN VIRGINIA REAL ESTATE \$25.00 PER ACRE

Contains 735 acres, 2 1-2 miles Railway station, on thoroughfare; 125 acres of good timber; 60 acre blue grass meadow; cultivate 200 acres in wheat and corn and graze 125 head of stock annually; watered with mountain stream, running full length of farm, and numerous springs, also well at each house. Improvements: new 6-room dwelling, two large halls, two porches, cellar, large lawn and abundance shade; dwelling center of farm and well elevated; new horse barn 33 x 54 containing 12 stalls and modern in design; one large bank barn; two machine houses; two good tenant houses; stone out buildings; large and small fruits; fencing in good condition. A very valuable stock farm in good state of cultivation.

\$20.00 PER ACRE

Contains 280 acres; 60 in small timber; balance in grass and in cultivation; one-half mile from railway station; on two public roads; apple orchard of about two hundred trees and in bearing; 7-room dwelling, good barn and all outbuildings, and all in good condition.

\$27.00 PER ACRE

Contains 400 acres; 60 in timber, balance in grass and in cultivation; wove wire and rail fencing and locust posts. At railway station on public road; bordering two large streams of running water; two wells at house. Improvements, 7-room dwelling, two halls, large lawn, and abundance of shade, dwelling well elevated, near center of farm. Until recently was used as a dairy farm and is a valuable one. Must be sold to settle an estate.

For the asking, I will furnish description of a Northern Virginia farm, and the one you desire. No unreasonable delay.

GEORGE W. SUMMERS,
Box 21, Sterling, Va.

FARMS For Sale.

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

W. W. BARNES & CO.,
LAND AND TIMBER AGENTS,
Amelia Courthouse, Va.

"Strout's Farm Buyers' Guide"

is the title of a big circular, illustrated and describing an amazing assortment of low priced, profit-paying properties, with stock, tools and crops included; thrown on the market at startling sacrifices to insure immediate settlement of estates. Copy mailed free from our nearest office. E. A. STROUT CO., 294 Washington St., Boston; 150 Nassau St., New York; Land Title Bldg., Philadelphia; Scottsville, Va.; Kent's Hill, Me.; University Bldg., Syracuse, N. Y.

Please mention the Southern Planter.

ports as follows in regard to the value of silage for sheep:

"I have fed ensilage to sheep for three winters, and am remarkably pleased with the results. I make ensilage half the daily ration, the other half being corn stalk or timothy hay, with bran or oats. The sheep do exceedingly well. Formerly I was troubled to raise lambs from grade Merino ewes. Of late this trouble has almost ceased. Last spring I hardly lost a lamb. While ensilage may not be the entire cause of the change, I believe it is the main cause. It is positively proved that ensilage is a most valuable food material, when properly fed, for all our domestic animals."

The foregoing article appears on page 156 of "Modern Methods," a 224 page book, published by the Silver Mfg. Co., Salem, Ohio. Every reader of this paper should look up their ad. in another page.

FEEDING A FARM FLOCK.

Editor Southern Planter:

Owing to the distance of fifteen miles from nearest shipping point on railroad, with two mountains to cross, and shipping facilities not being what we were led to expect, we found that the shipments from Burke's Garden did not always give satisfaction, so for this and other reasons we moved in November to Clifton, Va., twenty-seven miles from Washington, on the Southern Railroad.

Notwithstanding the long, crowded trip on freight car, our flock of Brown Leghorns soon seemed to feel at home in their new and comfortable quarters, and after only a short time they began to give us eggs.

As to feeding, the last thing in the evening after the birds have gone to roost, sheaf wheat is scattered in scratching shed for the early risers. If the morning is fine and warm, the flock is given free range by daylight, and thus has an opportunity for the early worm. But if the ground is frozen or rough weather prevails they are kept in house and given a scant mash of table scraps and ground meat trimmings, with a dash of cayenne pepper, and this, with the wheat, keeps them busy and happy until noon, when extra fountains are filled with milk and corn on the cob is given to keep them interested. Grit, oyster shell and beef scrap are kept before them all the time with fountains always full of fresh, clean water. The hens also enjoy the clover chaff from the barn floors, which is gathered in bags when clover is being fed to stock. Before night whole corn is scattered so that the hens go to roost with craws well filled, yet having scratched for their living though within doors all day.

This flock is paying, but a better percentage of eggs is gotten from five hens which are confined all the time. In the southeast corner of barn are

CRITTENDEN'S VIRGINIA REAL ESTATE AND LOANS OFFICE

North-Western Virginia Farms for Sale. A Land of Sunshine, Short Winters and Healthy Climate.

No. A 15.—145 acres, 35 in timber, 2½ miles from R. R. station. Well watered and fenced; good buildings. Price right, \$5,500.

No. 160—30 acres, 6-room house; new barn, young orchard of 4 acres; 2¾ miles from R. R. station, one mile from church and school. Price \$2,250 terms to suit.

No. A. 21—230 acres, some timber, \$23 per acre; buildings out condition; farm has been generally neglected but very good value at the price. 2 miles from R. R. station, church, stores and school. Easy terms.

No. A. 15.—175 acres, 15 in timber. Under high state of cultivation; near church and school, 4 miles from R. R. Well watered and fenced; fine fruit. Good and commodious buildings of all kinds. Price \$12,000.

No. A 23.—156 acres, at \$50 per acre. Elevation 450 feet. It would make one of the show places in Loudoun—fine home for hunt club, 2 miles from R. R. station, good water, comfortable buildings.

No. A 24.—346 acres. Fine stock farm, finely watered, good land, average buildings, plenty of timber, church and school near, 6 miles from R. R. Price, on easy terms, \$10,000. Good value.

No. 103.—One of the most attractive agricultural homes in Loudoun County. Beautifully located in a highly desirable neighborhood. Fine buildings, all modern improvements; two tenant houses, plenty of fruit; well watered and fenced. This farm embraces 486 acres of highly productive land that may be utilized along any agricultural lines with profit. ½ mile from R. R. Price \$34,000. Terms to suit.

No. 111.—Fine stock farm of 290 acres, borders on the Potomac river, 150 acres river bottom that will make 20 barrels of corn per acre, the upland will produce not less than 10 barrels. Fine spring; good fruit. Comfortable buildings, 200 ft. or more above the river—very healthy, 5 miles from R. R. This property is a bargain, at \$60 per acre on very easy terms.

No. 161.—This attractive proposition of 428 acres, borders on the Potomac River, 200 acres of river bottom, 100 acres well set Blue Grass of long standing. The buildings are beautifully located overlooking the Potomac River for miles, all in good condition; modern house containing 11 rooms—standing well back from the river on a prominent elevation. Large and ample outbuildings. The soil mostly good strong clay, producing well. 8 miles from R. R., with good stone road for most part of way. Price \$25,000, half cash.

Farther and special descriptions furnished on application. All business transacted through this office guaranteed to be as represented, and strictly confidential.

DeL. S. CRITTENDEN, Broker,
Ashburn, Va.

CLAUDE G. STEPHENSON,
Virginia Properties
HERNDON, VA.



View of House on "B."

Herndon is the center of the Dairy interests of Northern Virginia. It is located on the Bluemont Div. of the Southern Ry., only 27 miles from Washington, D. C.

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.

"B." A fine stock farm of over 340 acres of good blue-grass land in the famous BLUE-GRASS Region of Loudoun; about 20 acres in hard wood timber, balance in high state of cultivation; fine grass. Well fenced, with stone and wire chiefly, and in tip top shape. Rolling and well drained; splendidly watered with spring or running stream in every field. Fine old stone house of 9 rooms, some 19x19 feet; high ceilings; barn, tenant house and farm buildings; all in best condition. Small orchard. Five miles from good town on the R. R.; fine neighborhood. Reasonable terms if desired.

This is an excellent farm in every way; soil of the very best; improvements good, and beautifully located in a charming country, the REAL farming and delightful "home" region of the State.

The illustrations will give you some idea of the fine old stone dwelling and the gently rolling character of the land in the midst of attractive scenery.

Come and look at this and other properties. Take the Bluemont Division of the Southern, from the Union Station in Washington. Write or wire in advance if possible.

"H." A good small dairy farm of 160 acres equipped for 25 head; silo, dairy buildings, etc.; good house; convenient to shipping station. Price and terms reasonable.



View of Fields on "B."

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.

CLAUDE G. STEPHENSON,

VIRGINIA PROPERTIES.

HERNDON, . . . VIRGINIA.

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.

VIRGINIA FARMS

Convenient to Richmond and Washington.

200 Acres near Ashland and the Electric Car Line—\$2,750. Many other bargains in Farm Property.

FRANK H. COX,

Resident Agent, Ashland, Va.

MARYLAND AND VIRGINIA

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.

A charming old VIRGINIA home in Albemarle County, 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.

REAL ESTATE FOR SALE.

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

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

Please mention the Southern Planter

two box stalls not in use, being well lighted by glass windows. With little work and no expense the hens were fastened in these and have averaged a fifty per cent. egg yield, receiving the same care as given larger flocks, with the exception of odds and ends of vegetables and fruit to make up for the range of other birds. This experiment may interest owners of large flocks who can confine a few selected singing hens with red combs and doubtless get better results than if the hens were crowded and distracted by the flock at large.

Before closing, to be strictly truthful, I must tell how by accident or man's absent-mindedness the stall door was left open, and one day of liberty and excitement caused empty nests for several days to follow. So don't let hens thus closely confined realize there is anything beyond their little corner, their greatest excitement, the daily cackle of duty accomplished. Humdrum, but it pays!

MRS. W. B. DOAK.

STEEL SHOES FOR FARMERS.

Thousands of farmers have discontinued the use of all-leather work shoes and are now wearing the new Steel Shoes. They are the Shoe Success of the century. They cap the climax of the splendid series of modern inventions of benefit to the American farmer.

The Steel Shoe is designed to afford foot comfort and protect the health of the farmer himself.

The comfort and health of the animals on the farm has heretofore received more attention than that of their owners. Yet the prosperity and success of the farmer depends primarily on good health. The farmer undergoes much discomfort and often suffers from colds and rheumatism as the result of working long hours, in wet and cold, with inadequate foot protection.

All-leather shoes, no matter what they cost, become water-soaked in a comparatively short time when worn in the mud or slush. Coughs, colds and rheumatism, or even the dread pneumonia, result from cold, wet feet. In drying out, the leather soles curl up, and thus the shape of the entire shoe is ruined. Corns, callouses and bunions result from wearing such shoes.

Steel Shoes have an absolutely rigid sole, which forces the leather to keep its shape.

This extends an inch above the bottoms all around the shoe. The bottoms are studded with adjustable steel rivets, which can be replaced as fast as they wear out. No other repairs are necessary. The fact has been demonstrated time and again that one pair of Steel Shoes will outlast three to six pairs of all-leather shoes. Yet the cost of Steel Shoes is less than all-leather shoes.

Readers of this paper who seek an



VIRGINIA FARMS

\$8 per Acre and up

with improvements. Good productive soil, abundant water supply and best climate on earth. Near railroad and good markets with best church, school and social advantages. For list of farms, excursion rates and our beautiful pamphlet showing what others have accomplished, write to-day to F. H. LA BAUME, Agri. and Indl. Agt., Norfolk & Western Ry., Box 500, Roanoke, Va.



STANDING TIMBER

For sale—A splendid piece of oak and pine timber on about 100 acres of land 1-2 mile from station, good hauling. About 500,000 feet is the estimate. Will sell in a lump or have it cut on shares, taking 1-3 of selling price for my part. The wood also can be handled with a good profit.

W. M. WATKINS,

Saxe, Charlotte Co., Va.

Virginia Farms

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

FREE CATALOGUE.

R. B. CHAFFIN & CO, Inc.

Richmond, Va.

Old Virginia Farms.

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

CASSELMAN & COMPANY,
RICHMOND, VA.

CHOICE VIRGINIA FARMS

Along Chesapeake & Ohio Ry. as low as \$5.00 per Acre.

Rich Soil, Mild Winters. Good Markets. For Handsome Booklet and Low Excursion Rates address G. B. Wall, Real Estate Agent C. & O. Railway, Box G., Richmond, 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.

FARMS.

Mineral and Timber Lands.
Free list on application.

W. A. PARSONS & CO.,

1527 East Main St., Richmond, Va.
Davis Hotel Bldg.

A Neat Binder for your back numbers can be had for 20 cents. Address our Business Department.

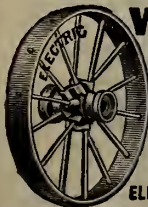
SOUTHERN POULTRY GUIDE

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.

SOUTHERN PLANTER,
Richmond Va.

VIRGINIA RIVER FARM.

350 acres fronting $\frac{1}{2}$ mile on river; estimated to be 100,000 feet of oak and pine timber, besides a large amount of cord wood and R. R. ties; 50 acres rich bottom land; good upland for pasture, hay and grain; nice young orchard; new 2-story, 6-room house; barn, stable, poultry houses; fine water; owner has other business and for immediate sale cuts price to \$3,300; Part cash and easy terms. See details page 23. List 21, copy free.
E. A. STROUT CO. Scottsville, Va.



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.

- EGGS -

ONLY TEN CENTS

apiece from some of the Best Birds in the South—none better anywhere. Every pen headed by a prize-winning cock—several composed entirely of prize winners.

Black Langshan, S. C. Black Minorca, Black Sumatra, Red Pyle Game, S. S. Hamburg, Buff Orpington, S. C. R. I. Reds, S. C. White Leghorns.

Better order now—the pens are small, the supply, of course, limited.

CARROLL MENEFEE,

Fancier,

SPERRYVILLE, VA.

Member and Va. Secretary National Black Langshan Club; member American Black Minorca Club; R. I. Red Club of America.

easy, comfortable shoe and perfect safety from all the ills that follow cold, wet feet, should wear steels. The Steel Shoe Co., Dept. 76, Racine, Wisconsin, or Toronto, Canada, make them.

AN OLD RELIABLE HORSE REMEDY.

The most common horse ailments are very similar from year to year. Spavin, Curb, Ringbone, Splints, Swellings and Lameness are liable to attack any horse at any time. It is therefore the duty of all horse owners to be prepared to deal with such ailments themselves, and not to be too much at the mercy of the veterinary.

The long-time popularity of Kendall's Spavin Cure, a remedy known to horsemen all over the world, made by the Dr. B. J. Kendall Company, at Enosburg Falls, Vt., has been found to be an excellent remedy for the most common ailments of the horse. It is just as good a remedy to-day. Ringbones, Curbs and Swellings on horses have not changed. Kendall's Spavin Cure has not changed. It is the same remedy that was compounded originally by Dr. B. J. Kendall, and it effects the same cures it did then.

Druggists everywhere handle Kendall's Spavin Cure. This is necessary because the average horse owner feels like he cannot be without it. The Dr. Kendall Company's book, "A Treatise on the Horse and His Diseases," enables horse owners to know and treat horse ailments intelligently. It helps out of many a tight place. Usually it can be had at the drug store. It will also be mailed free if you address the Dr. Kendall Company at the address given above.

A LITERAL PATIENT.

The subjoined anecdote was told me by a very old lady, who said it had occurred within her circle of acquaintances, long before the Civil War, and it is really so racy and amusing that I feel as if I ought to share it with others.

A certain man (not overburdened with grey brain matter) called in a physician to practice on him for ague. In those days quinine was called "Peruvian bark," or sometimes simply "bark." The physician prescribed for him to take Port wine and bark three times a day. Just before dinner the family heard strange noises proceeding from the patient's room as if a dog was being beaten. Hurrying there they found the sick man trying to imitate the barking of a dog. "What on earth is the matter with you?" they exclaimed, thinking he had suddenly gone mad. "I have taken my Port wine," he replied, "and now I am barking." He had construed the word "bark" as a verb instead of a noun, and was trying to literally obey his physician.

EDGEHILL POULTRY FARM, Luray, Va. C. H. DICKINSON, MANAGER



Eggs for hatching from the following high scoring birds: Dunston strain White Wyandotte, Silver Laced and Partridge Wyandotte, Biltmore Barred Plymouth Rock Buff and White Plymouth Rock Whitman strain Brown Leghorn, Cornish Indian Games, Buff Orpington, R. C. R. I Red, Northrup strain Black Minorcas. Price, \$1 for 15. Special prices for large quantities. A few choice Trios for sale. Cockerels \$1.25 to \$2.00. Pullets \$1 to \$1.50. I have quite a large number for sale and my birds are finer than ever. Satisfaction guaranteed.

EGGS! EGGS!! EGGS!!!

Strictly fresh ones of Mammoth Bronze, White Holland and Half-Wild Turkeys at \$2.25 per 9; Barred Plymouth Rocks at \$1 per 15, \$1.50 per 30, \$5 per 100; Mammoth Pekin Ducks, \$1 per 11 or \$1.50 per 22; White African Guineas, \$1 per 15.

Stock For Sale.

All eggs carefully selected, well packed and satisfaction guaranteed. A strong statement but a plain fact—you get the worth of your money when your orders are filled from

BLUE HILL POULTRY YARDS,
Route 1. Somerset, Va.

PEKIN DUCKS WHITE GUINEAS WHITE WYANDOTTES TOULOUSE GESE

Bred from winners at Madison Square, Jamestown Exp., Phila., and State Fair.

I am now booking orders for eggs for spring delivery.

EVELYN HEIGHTS FARM,
W. W. Thomas, Prop. Catlett, Va.

BELMONT POULTRY FARM

Spring-hatched Cockerels and Pullets for sale of the following breeds—White, Barred and Buff Plymouth Rocks, S. C. White, Buff and Brown Leghorns, R. & S. C. Rhode Island Reds, R. & S. C. Black Minorcas, White and Silver Laced Wyandottes. Cockerels \$1.25 to \$1.50; Pullets, \$1 to \$1.25. Eggs, \$1 for 15.

ALBERT NICHOLS, Luray, Va.

We Are Now

BOOKING ORDERS FOR EGGS

White Holland Turkey, \$2 for 9
Crested Pekin Duck, \$1 for 11
S. C. Brown Leghorn, \$1 for 15
Buff Plymouth Rock, \$1 for 15

LAUREL HILL POULTRY FARM,
Roxbury, Va.

Mt. PLEASANT FARM

Single Comb

White Leghorns

Are the best for the Farmer, the Trucker, the Amateur. They lay more eggs at less cost for feed. The eggs hatch better, and the chicks grow faster (cost less to raise). We guarantee our eggs 90 per cent. fertile. Stock sold with the distinct understanding that it may be returned if not entirely satisfactory, and price will be refunded without question.

MT. PLEASANT FARM, Box 2203.
Havre De Grace, Md.
250 Acres of Fertile Land Devoted to S. C. W. Leghorns of Quality.

**S. G. WHITE LEGHORNS,
BROWN LEGHORNS,
BLACK MINORCAS.**

Tumbler Pigeons, Belgian Hares.

At the great Richmond Show, Dec. 7-12, 1908, I won 10 firsts, one second, 3rd, 4th and 5th.

Strong, vigorous, farm-raised birds excellent layers.



Eggs from my best pens, \$1 per 15 or \$6 per 100; little chicks 15c each, shipped anywhere in U. S.; Tumbler Pigeons, \$2 pair; Belgian Hares, \$2.50 pair. Satisfaction guaranteed.
J. A. ELLETT,
Beaver Dam, Va.

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.

STRICTLY FRESH EGGS

A SPECIALTY.

White Holland, Mammoth Bronze and Half-Wild Turkeys (no birds for sale); Line-bred Barred Plymouth Rock; Large Pekin Duck, White African Guinea—eggs and stock for sale.

I guarantee 75 per cent. fertility, 7th day test. Send for 1909 circular.

High-class Berkshire at all times.

E. F. SOMMERS, Somerset, Va.

HINTS BY MAY MANTON.

The blouse that is made with a combination of wide and narrow tucks is a very charming one and peculiarly well adapted to the fashionable thin materials. This model produces the best possible lines and includes the new, close-fitting sleeves together with a fancy yoke. In the illustration the yoke is made of all-over lace and the blouse itself is made of fine white lawn, but ready-made yokes can be utilized for the purpose if preferred, or the yoke could be made from embroidery, or from plain material with some simple design embroidered by hand. When washable materials are used the blouse is designed to be made unlined, but it is just as well adapted to net and to silk as it is to lawn, batiste and the like and a fitted lining is included in the pattern. The model will be found equally desirable for the odd blouse and for the entire gown.



6227 Tucked Waist with Fancy Yoke, 32 to 42 bust.

The waste is made with a fitted lining, which can be used or omitted, as liked, and consists of front, backs and yoke. The neck is finished with a high stock collar and the long sleeves are made in one piece each.

The quantity of material required for the medium size is 5 3/4 yards 21 or 24; 3 1/2 yards 32, or 2 1/4 yards 44 inches wide with 3/4 yard of all-over lace.

The pattern 6227 is cut in sizes for a 34, 36, 38, 40 and 42 inch bust measure and will be mailed to any address

SINGLE COMB

WHITE LEGHORNS

EXCLUSIVELY of finest exhibition strain.
Prince Satin, first prize cockerel and winner of special prize for whitest cockerel, Bristol Dec. 1908, heads my pen. He is mated to 15 of the finest exhibition females, including the special prize, best shaped pullet in above show.
Eggs from this pen, \$2.50 per 15; eggs from business pen, \$1 per 15. Address:

W. S. MATHEWS,
Big Stone Gap, 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.

WHITES

Eggs from White Holland Turkeys, \$2 per dozen; \$15 per 100.
The sire of my breeding toms this season weighed 35 pounds when 18 months old.

White Plymouth Rocks and S. C. White Leghorns, 75c per 15; \$3.50 per 100. Better place order early for turkey eggs.

G. W. MOSS, Guineys, Va.

S. C. WHITE LEGHORNS

Layers of quality. 1st pen young; 1st pen old, Va. State Fair, 1908.

EGGS \$1.50 per setting 15.

\$6.00 per 100.
W. R. TODD, 426 N. 6th St., Richmond, Va.

EGGS—EGGS—EGGS.

S. C. B. Leghorns, Barred P. Rocks and Pekin Ducks. The best your money can buy. Exhibition and utility stock that will please you. Send for prices. I have the quality. Satisfaction or money back. Eggs any quantity. Incubator chicks a specialty. Can spare a few Leghorn pulllets.

WM. F. COYNER, JR., Route 2,
"Fairview Farm." Waynesboro, Va.

STOCK AND EGGS.

From my Prize-Winning

WHITE Wyandottes, Holland Turkey, Guineas, China Geese, Mam. Pekin and Wild Mallard Ducks.

WHITE POULTRY YARDS,
Lorraine, Va.

EGGS! EGGS!! EGGS!!!

Of pure-bred Barred Plymouth Rocks exclusively, of the best bred-to-lay strains. Large, healthy, beautifully marked birds on free range, \$1 for 15, \$5 per 100.

WM. B. LEWIS, Blackstone, Va.
Route No. 1.

by the Fashion Department of this paper on receipt of ten cents.

The boy's suit that is made with knickerbockers and the long blouse in Russian style is a favorite one. It is becoming, it is comfortable, it is satisfactory from every point of view. This one can be made from wool material, from silk or velvet for occasions of extreme dress and from the washable fabrics that are used for boys' costumes. In the illustration serge is trimmed with a stitched band of the same, but woolen goods include chevots and many mixtures, shepherd's checks are liked and much used and the suit made from velvet, velveteen or corduroy is extremely handsome. With the coming of warm weather mohair and silk will be in demand for the dressy costumes and linen, galatea, madras, kahki and the like will continue to be favorites among washable materials.



6208 Boy's Suit, 4 and 6 years.

The suit is made with the blouse and the trousers. The blouse is made with fronts and back and is held to position by means of a belt, but this belt can be either of leather or the material. The sleeves are tucked at the wrists to give a cuff effect and the shield is attached under the blouse. The knickerbockers are of the regulation sort, drawn up by means of elastic at the knees.

The quantity of material required for the medium size (6 years) is 4 3/4 yards 24; 3 1/4 yards 32, or 2 3/4 yards 44 inches wide.

BURKE'S GARDEN POULTRY, WINNINGS 1908-1909.

At Virginia State Fair; at Virginia Poultry Association; at Bristol Poultry Association; at Charlotte (N. C.) Poultry Association; at two County Fairs, WE HAVE WON:

- On WHITE WYANDOTTES, First Pen 5 times, Second Pen 1 time out of six; also Firsts in all single classes, numerous Seconds, etc., also Best Breeding Pen in show twice, also two beautiful Cups, Nat. W. Wyandotte Club Medal, and other Specials.
- On Barred Rocks, practically Clean Sweep at County Fairs; also First Pen at Va. P. Association; also First Pen at Bristol Poultry Association; also 1, 2, 3 pullets at Bristol (only one pen and no singles entered at last two shows—nothing shown at State Fair or Charlotte, N. C.)
- On S. C. White Leghorns, Clean Sweep at County Fairs; also Third Pen at State Fair; but owing to immaturity and not lack of quality, we were rather out-classed at two other shows.
- On S. C. B. Leghorns, exhibited only at County Fairs but made clean sweep.
- On M. B. Turkeys, owing to expense and injury of showing turkeys, we exhibited only one pair at each of above shows except Charlotte, and WON FIRST ON EVERY ENTRY.

If this memoranda of our winnings this year convinces you of the merit of our breeding stock, we will be pleased to furnish you stock or eggs on guarantee of your money's worth.

Our stock is raised on Free Range Bluegrass and ON SEPARATE FARMS. (See our ad. in Want Ad. Column of this number of Planter.)

STANDARD-BRED POULTRY FARMS.

BURKE'S GARDEN, VA.

EGGS FOR HATCHING

Pens No. 1—Fancy Orpingtons that win.

15 for	\$ 4 00
45 for	9 60
90 for	14 50

Pens No. 2—High-Class Breeders.

15 for	\$ 2 00
45 for	4 80
90 for	7 20

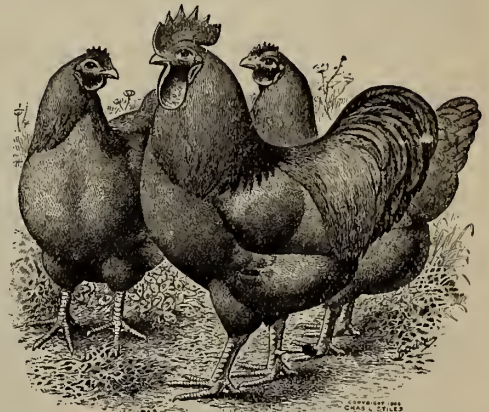
Pens No. 3—Thoroughbred Utility Stock.

15 for	\$ 1 00
45 for	2 40
90 for	3 60

Single-Comb Buff Orpington Stock for sale at all times. Write for prices.

HENRY J. and CHAS. G. SANGER, Proprietors of The Ethernore Fruit and S. C. Buff Orpington Farm. R. F. D. No. 2, DAYTON, VA.

The Best All-Purpose Fowls Known.



WE CAN SUPPLY

EGGS FOR HATCHING

From High-Class, Standard-Bred

S. C. RHODE ISLAND REDS.—First pen at recent Va. State Poultry Show and Va. State Fair winners. Grand Red Birds, eggs \$1.50 to \$3 for 15.

BLACK LANGSHANS.—Black's Egg-Laying Strain, Va. State winners. Large, handsome, active birds. An excellent table fowl and unsurpassed as egg producers. Eggs \$1.50 to \$2 for 15.

S. C. WHITE LEGHORNS.—Lakewood Strain, pure white, vigorous farm-raised birds. Eggs from choice pens, \$1.50 to \$2.

PARTRIDGE WYANDOTTES.—Most beautiful of all the Wyandottes. Eggs from high-scoring birds, healthy, vigorous stock, \$1.50 to \$2 for 15.

Write for discount on eggs by the hundred either all from one breed or assorted. Each breed under care of specialty breeder.

TAZEWELL PURE-BRED POULTRY YARDS, TAZEWELL, VIRGINIA.

QUALITY STRAIN OF

White Wyandottes Only!

I have only heavy layers combined with high scoring, vigorous birds that are fit to win in any company. No birds used in my breeding pens that are not up to or above STANDARD WEIGHT.

Am now booking orders for eggs at following prices:—From three best pens, THE BEST MATINGS at \$5.00 per setting; \$12.00 for fifty eggs or \$20.00 per hundred.

From six pens of next best, ALL HIGH SCORING BIRDS, \$3.00 per setting; two settings for \$5.00 or \$15.00 per hundred.

From 11 pens of GRAND BIRDS, that score 90 points or better, \$2.00 per setting, three settings for \$5.00 or \$10.00 per hundred.

Write for illustrated "BOOKLET" describing our plant and breeding pens.

QUALITY POULTRY FARM,

F. A. Mason, Mgr.,

R. F. D. 2, Forest Depot, Va.

My aim "QUALITY! first, last and ALWAYS." Life member A. P. Association.

SINGLE COMB

Rhode Island Reds

My strain is built on two \$25 quartets which I purchased in 1907, and I believe I have as good a fancy and utility strain as any one.

I have two pens, every bird having fine color, shape, and will produce the stock that will lay and win in the show room. Large, fertile eggs, \$2 per 15.

A few extra fine cockerels \$2 to \$5.

ROBERT G. HUNDLEY,

P. O. Box 118, Farmville, Va.

C-H-I-C-K-E-N.

"Who dat said chicken in this crowd; speak de word agin, and speak it loud. If you want the BEST that is 'cause you need 'em in your biz. Just buy the 'Sans Tache Reds,' and you'll be proud."

Two fine pens headed by 1st and 3d prize winners, Bristol. thoroughbred and pure.

Eggs, \$2.00 and \$1.00 per sitting. \$5.50 and \$3.00 per 50.

SANS TACHE YARDS,
(Without Blemish.)

Seven Mile Ford, Va.
Sans-Tasche-Single-Comb-Rhode-
Island-Reds.

That's the way to spell

C-H-I-C-K-E-N.

SINGLE COMB

RHODE ISLAND REDS

EXCLUSIVELY.

Eggs for hatching, \$2.50 for 15 from 4 pens containing 1st pen State Fair 1908, 2nd pen Va. Poultry Show, pen headed by 1st cockerel State Fair, 1907, and pen of fine, large uniform birds.

From general run of the yard of 75 hens, \$1.50 per 15, good utility stock.

A. R. VENABLE Jr., Farmville, Va.



ROSE COMB

RHODE ISLAND REDS

Eggs from prize-winning stock at astonishing prices.

MRS. MATHEW SMITH,
Route 1, Wellville, Va.

SINGLE COMB

RHODE ISLAND REDS

SINGLE COMB
Eggs for hatching (Tompkins & De-Graff strain) \$1.25 per 15.

MISS BELLE BROOKE,

201 Thompson St., Staunton, Va.

S. AND R. C. RHODE ISLAND REDS

Columbian and White Wyandottes; B. P. Rocks Eggs for hatching, \$1 for 15; \$1.75 for 30; \$2.75 for 50; \$5 for 100. All stock has free range.

Riverside Poultry Farms,
J. B. Coffman & Sons,
Prop., Route 19, Dayton,
Va.



The pattern 6208 is cut in sizes for boys of 4, 6 and 8 years of age and will be mailed to any address by the Fashion Department of this paper on receipt of ten cents.

POULTRY SHOW WINNINGS OF
GEORGE H. MOSS.

Winnings of 1908-1909.

At Tazewell Fair, 1st hen, 1st cockerel, 1st pullet, 1st pen, in Barred Plymouth Rocks. First cock, 2d hen, 1st cockerel and 1st pullet and 1st pen in White Plymouth Rocks. Pen of Barred Plymouth Rocks won sweepstakes over whole Show. First pair White Holland turkeys, 1st and 2d pairs Pekin ducks.

At Richmond Poultry Association, 1st cock, 2d hen, 1st, 3d and 4th cockerels, 2d, 3d and 4th pullets and 1st pen in White Rocks. Second cock, 2d cockerel, 2d hen, 3d pullet in Barred Plymouth Rocks, 1st and 3d pairs in young White Holland turkeys.

At Bristol, Tenn., 2d cock, 1st, 3d and 4th hen, 3d pen, 3d cockerel, in White Plymouth Rocks. Third cockerel in Barred Plymouth Rocks (nothing else entered) 1st Columbian Wyandotte cock. 1st pair White Holland turkeys (old).

At Charlotte, N. C., 1st hen, 1st cockerel, 1st pen in White Plymouth Rocks (nothing else entered). Second cockerel, 2d pullet, 3d hen in Barred Plymouth Rocks. Three White Rock Club Ribbons, the American Poultry Associations Diploma for best White Rock cockerel in the Show, and the Association's Silver Cup for best pen of White Rocks in the Show.

WON AT RICHMOND.

Dr. C. H. Copenhagen, of Tazewell, Virginia, won first pen Single Comb Rhode Island Reds at the Virginia Poultry Show, Richmond, December 7-12, 1908, and the award was omitted from the printed list through error.

W. R. TODD, Secy.

EVELYN HEIGHTS FARM WINS
AT PHILADELPHIA.

At the Philadelphia Show I won 1st and 2d young drakes, 1st and 3d young duck, 2d and 3d old drake and 2d and 3d old duck. Also, the special cash prize for the best display. I wish that you would please mention it in my next ad. Yours truly,

W. W. THOMAS, Prop.

PLYMOUTH ROCKS FOR THE
FARM.

Practically every breed now before the buying public has its champions. Maybe a few words of my dearly bought experience in poultry raising will be of some advantage to the beginner and former of a few acres. I have had experience with a good many of the so-called all-purpose fowls, and I find the Plymouth Rock to be as good as the best, if not the best, breed of fowls for the small

ROSE COMB

RHODE ISLAND RED

Pullets from prize-winning stock—for sale. Orders for eggs received, \$1 for 15; 3 sittings for \$2.50. Place order early.

L. E. SMITH, Appomattox, Va.

R. AND S. C.

Rhode Island Red

Cockerels and Pullets for sale. Eggs in season. Prices right.

Miss Mamie H. Herbert,
Route 2,
Blackstone, Va.



SINGLE COMB

RHODE ISLAND REDS

Prize winners at Herndon Poultry Shows 1908 and 1909. Choice cockerels from \$3 to \$5 each. Well mated trios good foundation stock, \$5.00. Eggs from special matings, \$2 per 15.

A. S. HARRISON, Herndon, Va.

PURE-BRED R. C.

RHODE ISLAND REDS



Eggs, \$1 per sitting of 15. Special rates for Incubator Eggs.

MRS. J. A. UPSON,
R. F. D., Wellville, Va.

ROYAL REDS
BUFF ORPINGTONS.

Eggs from choicest matings of R. and S. C. R. I. Reds and Buff Orpingtons. Best strains extant; wonderful layers; winners of many handsome prizes; \$2 per 15; \$7 per 100, also stock. Baby chicks \$3 per 15.
G. W. SWEETING, Locust Mt. Poultry Farm, Sharon, Harford Co., Maryland.

SINGLE COMB

RHODE ISLAND RED.

Eggs \$1 per sitting, \$5 per 100. Cockerels, good ones, \$1 each.
Jno. W. Morris, Waldrop, Va.

SHIRLEY POULTRY YARDS.

Barred Plymouth Rocks, E. B. Thompson's celebrated strain, beautiful plumage, fine large fowls, cockerels \$1.50 to \$2; eggs, \$1 per sitting; \$1.50 per two.

Mammoth Bronze Turkeys, the finest I ever raised, bred from 40 to 45 lb. toms, strong and healthy; a few toms \$5, hens \$3 to \$3.50; eggs per dozen, \$3.

Imperial Pekin Ducks, Eggs \$1 per 13, \$1.50 per 26.

MRS. R. E. WILHOIT, Somerset, Va.

EGGS FOR HATCHING.

Hawkins Barred, White and Buff Rocks, White, Buff, Silver and Part-ridge Wyandottes, White and Brown Leghorns, Black Minorcas, Black Langshans, Lt. Brahmans. Price \$1 for 15, \$2 for 30, \$3 for 50, \$6 per 100. A hatch of two-thirds guaranteed or order duplicated at half price, or will exchange two sittings of eggs for 1 1/4 bushels of field peas. All pens headed by high scoring birds second to none.

OAKLAND POULTRY FARM,
Ruffin, N. C.

Please mention the Southern Planter.



WILLIAMSON FARMS

MATTOAX, VA.

C. P. Rucker, Mgr. **Chas. Ainge, Mgr. Leghorn Dept.**
A. B. Carter, Mgr. R. C. Rhode Island Reds.

The Williamson Strain is the best that money and breeding can produce.

PURE S. C. WHITE LEGHORNS.

"Bob White," Winner of nine First Prizes.

"Perfection" First Prize Cockerel Jamestown Exposition.

"Williamson" First Cock Bristol Poultry Show, 1908.

EGGS—\$2 per sitting of 15; \$6 for 4 sittings, 60.

COCKERELS—Pure-Bred, \$3 each.

If you want Show Stock that can win anywhere, buy the Williamson Strain. Orders should be sent to

WM. P. WOOD, care T. W. Wood & Sons, Richmond, Va.

farm. They are winter layers, laying a large brown egg, such as the markets are calling for. As a table fowl, they are equal to any breed, being easily dressed and always command the highest prices in Baltimore and Washington markets. As mothers, they have no superiors. Two seasons ago I gave a White Plymouth Rock hen nineteen chickens. She raised seventeen, two were caught by a weasel.

The Plymouth Rock is a hardy, healthy breed and they are splendid rustlers, but not destructive. A four-foot fence will pen them, and they stand being penned well and will keep right on in the egg business. I prefer the White Rocks.

WHITING'S POULTRY YARD.

The Gardner Nursery Company, Osage, Iowa, have been growing Hardy "Blizzard Belt" Evergreens for the past forty years, and have found from experience that they are as easily grown



as the most common forest trees. Where failures have been made they were usually caused from planting too large sized trees, or by not having ground in proper condition to receive them.

Their advice is not to order large size evergreens without you have plenty of money, and do not care for expense. They have many times tried the experiment of planting trees one-fourth to one-half foot tall, by the side of the same varieties in three to four feet transplanted and root pruned grades, and in every case the smaller trees overtook the larger ones in but a few years' time. The reason being that the smaller trees bear transplanting without checking their growth, while the large trees are checked more or less from shock of transplanting.

Barred and White Plymouth Rocks, White Holland Turkeys, Columbian Wyandottes, Pekin Ducks.

I guarantee every pen to be headed by a blue ribbon winner.

My Stock is Healthy, Vigorous, Farm Raised and Show Bred

I am booking orders now for eggs at \$1.50 to \$5.00 per 15. A grand offer in White Holland Turkey hens, \$2.50 apiece. Send for 1909 mating list. It is free.

GEO. H. MOSS,

BURKE'S GARDEN, VA.

MADISON SQUARE-PEKIN DUCK-CHAMPIONS

For 1909, were the "JERSEY STRAIN" winning more ribbons and more points than any other Exhibitor.

Eggs from Selected Matings, \$2 for 11; utility matings, \$1 for 11.

"JERSEY STRAIN" WHITE ROCKS are also ahead of many others in the same way, having been winners at Philadelphia for past three years. Eggs from selected matings, \$3 for 15; utility matings, \$1.50 for 15. Incubator eggs from farm raised stock, \$6 the 100.

"JERSEY STRAIN" SQUAB BREEDERS are what you want for the Squab business. Send for circulars giving prices, etc.

PAUL G. SPRINGER, R. F. D. 4., S. BRIDGETON, NEW JERSEY.

We have also made arrangements with specialty breeders in our vicinity to sell eggs from choice Barred Rocks; White, Partridge and Silver-Laced Wyandottes; Partridge Cochins; S. C. White Leghorns, and R. C. Rhode Island Reds. Prices \$1.50 and \$2.50 per sitting.

SINGLE COMB RHODE ISLAND REDS.

The supremacy of the Reds, not only from a stand-point of beauty, but as a money-maker on the farm and in the back-yard, is questioned only by the ignorant.

One hen of the \$50 trio, on which my strain is built up, has laid in 6 years over 800 eggs and is still active and busy. I have reduced my flock to forty layers in four pens, and every fowl is beautiful, healthy, prize-worthy. I believe this is the best utility-fancy strain in the country. To avoid disappointment, I advise booking orders for eggs ahead.

BIG, PINK, FERTILE EGGS, \$2 for 13.

A few magnificent cockerels to spare, \$3 to \$5.

DR. J. H. C. WINSTON,

Hampden-Sidney, Va.

JOHN'S RIVER FARM.

Berkshires and Wyandottes.

Will book orders for a limited number of Berkshire pigs for early spring delivery.

Send me your orders for extra nice, large, Silver-Laced Wyandottes at \$1.25 each. For further information address,

JOHN M. HARSHAW, Proprietor,
Collettsville, N. C.

Please mention the Southern Planter.

GOING QUICK.

Fine, heavy weight Mammoth Bronze toms, hens, bred of 45 lb. prize tom.

White Wyandotte, Barred Rock cockerels, pullets. Beauties. Prize-winning stock. Eggs for hatching. Also White Orpington.

MISS C. L. SMITH,
Landon Poultry Yards,
Croxtan, Va.





SYSONBY GARDENS, PETERSBURG, VA.



WIN AGAIN WITH THEIR

Barred, Buff and White Plymouth Rocks

(A C. HAWKINS' ROYAL BLUE STRAIN.)

Entering 28 birds, 23 of which took ribbons at Virginia Poultry Association Show, as follows: First Pen in Buffs; second Pen in Barred; second Pen in Whites; Fourth Pen in S. C. Rhode Island Reds; third cockerel and pullet in Buffs, fourth pullet in Whites.

For eggs for hatching, Prize pens, \$3 per sitting; \$8 per 100; Utility pens, \$2 per sitting; \$5 per 100. You may get a prize cockerel out of one sitting.

Baby chicks shipped anywhere and safe arrival guaranteed. Stock for sale at all times. Correspondence cheerfully answered. S. C. WHITE LEGHORNS—STOCK AND EGGS.

SAM McEwen, Mar., - - PETERSBURG, VA.

VALLEY FARM

Barred Plymouth Rocks.

(E. B. Thompson Strain.)

S. C. Brown Leghorns.



Eggs from prize-winners for sale. Write me your wants. No more stock for sale. Satisfaction guaranteed.

CHARLES C. WINE,
Mt. Sidney, Va.

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.

BARRED PLYMOUTH ROCKS

EXCLUSIVELY.

Yard headed by some world renowned prize-winning blood.

Eggs from strong, healthy, beautifully Barred, farm-raised birds, unexcelled in laying qualities, size, vigor and beauty, selling at farmers' prices—\$1.25 for 15, or \$2 for 30. Toulouse Geese Eggs, \$1.25 for 7, \$2 for 14.

JOHN MAHANES, Trevilian, Va.

MEADOW BRIDGE POULTRY YARDS
Breeders of

Barred Plymouth Rocks.

Heavy Laying Strain.

Choice cockerels from prize-winning matings, \$2, and \$2.50 each; few pullets, \$2 each. Eggs for sitting from yards of choice matings, \$1.50 sitting. I offer better values than can be bought North for twice the money. Write me now.

R. S. GRAY, Prop., Fourquaren's Lane,
Richmond, Va.

GOOD HOUSEKEEPING.

Buckwheat Cakes.

Where you can get the buckwheat flour from the mill it is better in every way than that we get at the grocery, and it is almost sure to be free from adulteration. To three pints of buckwheat flour add two pints of corn meal, a tablespoon of salt, and a cup of yeast. Make it into a very stiff batter with cold water and set it in a warm place over night. Half an hour before frying add a heaping teaspoon of soda, a tablespoon of melted lard and enough sweet milk to make batter not as thin as the ordinary batter cake, but you must learn by trying just how thick you want it. Fry with lard on a hot griddle. Some housekeepers add a tablespoon of molasses, but I have not found it an advantage.

Brown Sugar Syrup.

Take three pounds of brown sugar and three pounds of white sugar, add one gallon of water and boil until the syrup looks almost as thick as molasses. Season with almost any seasoning. I have found that boiling the yellow outside bark of the hickory tree gives this syrup the taste of maple syrup. Sometimes I add a cup of the juice left from canned peaches or apples; sometimes vanilla; just anything to make a variety in our every day breakfast.

Sally Lunn.

Two quarts of flour, four eggs, one tablespoon of sugar, half cup of lard and butter mixed, one quart milk, and nearly a cup of yeast. Mix thoroughly in a bowl and set it to rise, after breakfast, if you want it for tea. At two o'clock beat it down and put it into well greased cake moulds. Let it rise, and bake slowly for an hour.

Risen Corn Bread.

This is an old recipe and well worth trying. Put into a large bowl two quarts of meal and three cups of flour, make a hole in the middle of the bowl and pour in a pint of boiling water, stir up enough of the meal to make a thin batter and let it get cold, then add a cup of yeast, two teaspoons of salt and a tablespoon of lard, and

EGGS, EGGS, EGGS.

WHITE HOLLAND TURKEYS.

Fine layers, my turkey hens averaged me 36 eggs each last spring. Eggs, \$2.25 for 9, as many as wanted in large numbers.

INDIAN RUNNER DUCKS.

Pens headed by drakes purchased from blue-ribbon stock. \$1 for 11; \$2 for 25; \$4 for 50.

BARRED PLYMOUTH ROCKS.

Line bred, fine winter layers. \$1 to \$2 for cockerels and pullets; eggs \$1 for 15; \$1.50 for 30; \$5 for 100.

TOULOUSE GEESSE

Eggs 30 cts. each. Care has been taken to have eggs fertile; none but fresh eggs sold; eggs carefully selected, well packed in baskets. Orders filled promptly in rotation, can furnish any quantity wanted. Satisfaction guaranteed.

MRS. M. F. GOOCH, Route No. 1,
Somerset, Orange Co., Va.

EGGS FOR HATCHING.

From pure-bred, very high grade Barred Rocks, E. B. Thompson and Gowell strains, \$2.50, \$2 and \$1.50 per 15, according to quality.

Also eggs from high-grade S. C. White Leghorns, \$1.50 per 15. Incubator eggs, \$5 per 100.

Address Cedar Hill Poultry Farm,
Route 1, Box 50, James River, Va.

BARRED PLYMOUTH ROCKS.

Eggs for hatching from Bradley and Hawkins Strain. Prize-winning cocks and careful mating—no other fowls on farm. 75c per sitting of 15—carefully packed. Send check, postal or express money order.

MRS. WM. P. BURKS, Bedford City,
Route No. 1, Va.

BARRED PLYMOUTH ROCKS.

(Hawkins Strain.)

S. C. White Leghorns (Wyckoff strain), S. C. Brown Leghorns (Biltmore strain), Mammoth Bronze Turkeys, Mammoth Pekin Ducks. Stock and eggs for sale. Satisfaction guaranteed.

MARION POULTRY YARDS, Marlon,
Virginia.

Pure-Bred

BARRED PLYMOUTH ROCKS,

and

POLLED ANGUS CATTLE.

Choice Breeding Stock, and Eggs from trap nested hens; some choice bulls for sale. Write me your wants.

C. NEALE STACY, Amelia, Va.

BUFF PLYMOUTH ROCKS.

Farm Raised. Fine quality. Eggs, \$1 per 15; \$5 per 100.

MRS. F. C. NUSSEY,
Massaponax, Spotsylvania Co., Va.

FERN HILL POULTRY FARM

BREEDERS OF ARISTOCRATS ONLY.

Barred Plymouth Rocks, Black Minorcas, S. C. Brown Leghorns, S. C. White Leghorns

For sixteen years I have bred these birds on my farm with free range. They have constitutions; are essentially aristocrat egg-shellers; have, and can, hold their own against the arrogant boast of any blue-ribbon winners. Have won prizes running from first to fourth, wherever shown. Highest scoring male, female and ten highest scoring fowls in the show. At Charlotte, N. C., 1909, my birds won first cock, hen, cockerel, pullet and pen, one special, also one diploma from American Poultry Association and five club ribbons. Eggs for hatching from these grand show birds, \$1.50 per sitting. Birds shipped on approval.

Address **J. WALLACE SNELLING, R. F. D. 1, MANCHESTER, VA.**
(Yards, Stop 9, Richmond-Petersburg Trolley.)



ESTABLISHED 1893.

EGGS - EGGS

If you don't believe that I am getting plenty of eggs, give me an order for several hundred or a thousand and see if I don't fill it promptly.

Single-Comb Brown Leghorns, \$1 for 15; \$6 per 100; \$50 per 1,000.
Single-Comb White Leghorns, same price.

CAL HUSSELMAN,
Highland Springs, Va.

EGGS PURE FRESH FERTILE.

Indian Runner Duck eggs, \$1 for 11; \$1.75 for 22; my duck pens are headed by drakes from noted layers.

White Holland Turkey eggs 25 cts. each; \$2.25 for 9.

White African Guinea eggs, \$1 for 15; Line bred Barred Plymouth Rock cockerels and pullets for sale; bred for beauty and winter layers, \$1 to \$2 each. Eggs \$1 for 15; \$1.50 for 35; \$5 per 100.

Mammoth Toulouse Geese eggs 30 cts. each; all eggs carefully selected and well packed; satisfaction guaranteed. Give me a trial order and I will give you the worth of your money. Address all orders to

INGRAHAM POULTRY YARDS,
Somerset, Orange Co., Va.

Greider's Book On Poultry

Concise, practical. How to make money with poultry; information as to buildings, treatment of diseases, etc. Fifteen attractive chromos;



sixty prominent varieties, 10c post paid. Fine, pure-bred stock and eggs at low prices. **GREIDER'S GERMICIDE**—a sure preventive and an excellent disinfectant. **S. H. GREIDER, Rhombs, Pa.**

MISS LOUISE V. SPENCER,
Blackstone, Va.

Headquarters for pure-bred R. C. Rhode Island Reds.

EGGS FOR HATCHING.
Member R. I. Red Club.

enough warm water to make rather a thin batter of the whole. Let it rise, then pour it into deep pans and cover with another the same size and bake in slow oven. When it is nearly done take off the top and let it get thoroughly done. This is good cold.

Graham Gems.

Three cups of sour milk or butter-milk, one teaspoon of soda, two of salt, one of brown sugar, one of melted lard or butter, two eggs well beaten. Beat all these except the lard together, then stir in enough graham flour to make a thick batter, then add the lard. Your batter should be thick enough to drop, not pour, from the spoon. Heat the gem pans, grease them well and fill them nearly full of the batter. Bake fifteen minutes and serve very hot.

Apple Pies.

There is possibly nothing that goes right to a man's heart as surely as a good apple pie, therefore it is a good thing to repeat the recipe every little while. You may use either canned, fresh, or evaporated apples for these. Make a rich crust (and be sure to get some of the gauze wire pie pans from the Ten Cent Store to bake them in); line the pan with the pastry, then put in a generous layer of apples, sweetened, then sprinkle a dust of spice over it, then a few raisins, and a good number of little dabs of butter, then put on the top crust. Cut a hole in the middle and stick it and bake till the bottom crust is done. If you have the wire pans your pie can cool in the pan it is baked in.

Apple Pudding.

Take a dozen nice sized apples, peel and core them, fill the hole with chopped raisins, citron and currants, sprinkle cinnamon and nutmeg over them, add a pint of water with a half-pound of sugar, bake until tender and then make a batter of two pints of milk, seven beaten eggs, one-half cup of butter, two cups of sugar, and one

Page Valley Poultry Farm

Has a grand lot of breeding birds, and will fill your orders with fertile eggs at the following prices:

15 S. C. W. or Brown Leghorn Eggs, 90c; 30 eggs, \$1.50; 15 R. C. Brown or S. C. Buff Leghorn eggs, \$1; 30 eggs, \$1.75; 15 R. or S. C. Black Minorca or Anconas, \$1.25; 30 eggs, \$2; 15 Buff Orpingtons, R. I. Reds, White, Buff, S. Lace or Partridge Wyandottes, \$1.15; 30 eggs, \$2. 15 Barred P. Rock \$1; 30 eggs, \$1.80; or \$5 per 100. 25 Barred Rock cockerels at a bargain. Order from this ad. and get my handsome catalogue of 25 varieties free.



C. L. SHENK, Luray, Va.

"MAPLEHURST"

The home of choice birds—**B. P. Rocks, Buff Orpingtons and S. C. R. I. Reds.** Eggs for sale at \$1 for 15, \$1.75 for 30, \$2.50 for 50. Write to

T. J. THOMPSON,
R. F. D. No. 7, Staunton, Va.

Single Comb

BROWN LEGHORNS

I have bred them exclusively for years and now offer eggs from well bred stock at 75c. per sitting. Correspondence solicited.

FHOS. WASHINGTON,
Woodford, Va.



STRICTLY PURE-BRED FOWLS

FOR SALE.

S. C. B. Minorcas and Toulouse Geese. Write me for prices and full particulars.

J. A. HICKS, Highland Springs, Va.

25 PURE-BRED

S. C. Brown Leghorn

Pullets for sale at \$1 each; laying now. Eggs \$1 for 15.

CEDAR RIDGE FARM,
W. S. Guthrie, Prop., Troutville, Va.

**BERGER'S
White Wyandottes**

Winners of many blues, specials and Va. State Silver Cup for the best exhibit at the late Richmond Show. Place your order now for eggs. Write for descriptive circular which gives further information.



R. O. BERGER,
State Sec'y Nat'l
White Wyandotte
Club,
16 N. 20th St.,

RICHMOND, VA.

FREE RANGE

White Wyandottes



Exclusively.

The yellow leg, blocky kind, heavy laying strain. Choice Pullets and Eggs for sale. Give us a show.

DUNNLORA POULTRY FARM,
Carson, 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. Can spare few cockerels and pullets.

C. M. WALKER,
Herndon, Va.



Pure-Bred

Barred Plymouth Rocks

(Park's Strain)

S. C. Rhode Island Reds

(Piper's Strain)

These are the best bred-to-lay strains in the country. Eggs \$5 per 100; \$1 per 15.

Fred B. Jones, Gloucester, Va.



Poultry of Highest Quality

My big new book illustrates and describes over 40 varieties chickens, ducks, turkeys and pigeons. Tells which pay and which do not; how to feed, cure diseases, etc.; gives low price on stock and eggs; how you can earn eggs taking orders. This book will help put dollars in your pocket if you will just write me. It's only 10c. Mention this paper. JOHN E. HEATWOLE, Harrisonburg, Va.



S. L. WYANDOTTES

Exclusively.

Finest pure-bred stock, extra winter layers. Eggs \$1 per 15; \$2 per 30. Safe arrival and satisfaction. Having 25 years experience with leading varieties of pure-bred poultry. I know that my WYANDOTTES are hard to beat. Circular free.



Holly Grove Poultry Farm,
S. P. YODER, Denbigh, Va.

pint of flour, a teaspoon of salt and one of baking powder. Beat hard and pour it over the apples in the pudding dish. Bake and serve either hot or cold with rich cream.

Stuffed Dates.

Take the seed out of the dates, chop the meat from English walnuts or pecans, with a little powdered sugar or grated coconut, fill the dates and press it around the nuts, roll in powdered sugar.

Angels' Food.

If you haven't much to do and want something especially dainty, try making a loaf of angel's food. Possibly you will try several times before you succeed. We did. But the last result repaid us for the previous efforts. Use the whites of eleven eggs, one and a half tumblers of sifted granulated sugar, one tumbler of sifted flour, one teaspoon of vanilla, one teaspoon of cream tartar; sift the flour four times, then add the cream tartar and sift three times more. Beat the eggs as light as possible on a large, flat dish. On the same dish gently sprinkle the sugar and then the flour and the vanilla; beat hard and do not stop a second until you put it into the pan. Use a pan that has never been greased. Pour the batter in and bake forty minutes in a rather slow oven. On no account open the stove for fifteen minutes after you put the cake in. Your pan should have feet. If you haven't one you can use a rack under the pan. Try the cake with a straw and if done turn the pan upside down. When cold, loosen from the sides with a knife and let it drop out.

Good Paste.

Mix two tablespoons of flour with two tablespoons of cornstarch; dissolve it in a little cold water and pour it into a cup and a half of boiling water. Let it boil hard for a few minutes, stirring all the time, then add three drops of carbolic acid. Put it into a big-mouth bottle and it will keep indefinitely, being ready for use whenever needed. CARAVEN.

THE BING BURNER.

Housekeepers generally should be interested in the advertisement of the Bing Burner Co. Its makers claim that it produces about one-third more light than any other burner without extra cost. Better look up the ad. and get a sample burner.

THE DEATH OF A. H. PATCH.

We are sorry to learn of the death of A. H. Patch, Clarksville, Tenn., on January 29th. Many of our readers are familiar with the Black Hawk Sheller, which he invented, and has been manufacturing for a good many years. The business will go on uninterrupted under the management of his son.

Tell the advertiser where you saw his advertisement.



RING NECK PHEASANTS

As easily raised as chickens; weigh from 2 1/2 to 4 lbs.

Eggs for hatching, \$2 per 13, April 15th to August 1st.

For any information desired apply F. C. HARRIS, Beaver Dam, Va.

EGGS!

Quality - Price.



Shipping and booking orders now from my prize-takers. Better mated than ever before.

Silver Laced, Partridge, White Wyandottes, W. Pekin Ducks, S. C. R. I. Reds, S. C. Black Minorcas, \$1.50 per sitting; S. C. White and S. C. Brown Leghorns, \$1 for 13.

39 prizes out of 43 entries Richmond, 1908; 11 prizes out of 10 entries Charlotte, 1909.

Stock at Bargain Price Always.
ELLERSON POULTRY YARDS,
J. W. Quarles, Prop.,
Ellerson, Va.

Harmony Village, Middlesex Co., Va.
Wilmington Dairy and Poultry Farm.

First class breeding stock from the S. C. R. I. Reds (Tompkins and DeGraff strains) \$1.00-\$1.50 each. Special rates in large lots. B. P. Rock pullets (Bradley strain) \$1.00 each; \$11.00 per dozen.

Satisfaction always guaranteed.

MRS. F. E. WILLIAMS,
Charlottesville, Va.

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.

MOTTLED

ANCONA

Eggs from pure-bred stock for sale at \$1.50 per sitting of 15. Order now.

B. N. TURNER, Luexa, 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. Six entries at Richmond and Herndon won 2 first, 1 second, 2 thirds and a club special. Eggs in season. Stock for sale.

**COLUMBIAN WYANDOTTES,
S. C. WHITE LEGHORNS.**

Nothing but prize-winners. A few eggs for sale.
H. A. SAGER, Box B-345, Herndon, Va.



**Pure-Bred
POULTRY**

Eggs for Hatching in Season.
Farmers, now is the time to order your Breeding Birds for 1909. I have choice birds of the following breeds. Barred, White and Buff Plymouth Rocks, White, Brown and Buff Leghorns, White and Silver Wyandottes, White, Black and Buff Orpingtons, Rhode Island Reds, Silver Spangled Hamburgs, Indian Games, Black Minorcas, and White Face Black Spanish chickens; Rouen and Pekin Ducks, Mammoth Bronze and White Holland Turkeys.
Do not delay, place your order today and get advantage of lowest prices. Address
JAMES M. HOBBS,
1521 Mt. Royal Avenue,
BALTIMORE, MD.

**Pure-Bred
WHITE HOLLAND
and**

MAMMOTH BRONZE TURKEYS.

Farmers do not delay. Now is the time to buy and save money. Choice 15- to 16- pound White Holland Toms, \$5 each; 25-lb Yearling Toms, \$7 each. White Holland Hens of this year's hatch, 8 to 12 pounds each, \$4 each, or \$7.50 for two hens.

My Mammoth Bronze Turkeys are extra good this year, and the prices for February are as follows: 23- to 30-pound Yearling Gobblers, \$7 each; 12- to 14-pound early hatched hens, \$4 each; 9 to 11-pound hens, \$3 each.

Turkeys nearly all sold; have had the largest trade in my experience. Can supply a few choice birds yet if ordered promptly. Eggs: White Holland and Mammoth Bronze, 30c. each or \$3.50 per 12. Book your orders now and get eggs when wanted.

JAMES M. HOBBS,
1521 Mt. Royal Ave, Baltimore, Md.



**Pure-Bred
HOGS**

I have the finest lot of Berkshire, Poland-China, Chester White, Yorkshire and Tamworth Pigs and Hogs I ever owned. I can mate Pigs and Shoats for breeding 2, 3, 4 and 6 months old, and have fine 150- to 200-lb. Service Boars and Bred Sows ready for immediate shipment.

Order to-day and get the sows settled before farrowing time. These sows are extra good, and will please anyone, as will the service boars and pigs. References given.

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

Black Langshan Eggs.

From grand birds of the great egg-laying strain. \$2 for 15, \$3.50 for 30, \$10 for 100.
Book your order for eggs now. Some choice breeding birds for sale. Write for descriptive circular.
A. M. BLACK, Tazewell, Va.

BLACK

LANGSHANS

Some nice stock for sale.

JOHN C. ADAMS,
Bristol, Va.-Tenn.

PIT GAMES.

Grim Reds, Red Horses, and my famous crosses. I have shipped these cocks to all parts of America and England and they have won a majority of their battles wherever fought. Eggs in season at \$2 per sitting of 15.

THOS. W. JARMAN, Yancey Mills, Va.

BLACK ORPINGTON

Eggs from Imported Stock, magnificent birds, \$5 for 15.
Barred Plymouth Rock eggs from selected pens, \$1 for 15.
Mammoth Pekin Duck Eggs, \$1 for 10.

ANTRIM STOCK FARM,
Warrenton, Va.

MRS. J. D. S. BROWN,
STAUNTON, VA., - Route 7.
Breeder of Pure-Bred

R. C. RHODE ISLAND REDS.
Eggs for sale—\$1 for 15. A few cockerels for sale.

GOLDEN WYANDOTTES.

Pure-bred, vigorous and heavy layers. Eggs \$1 per 15; \$1.75 per 30. Also stock for sale.

MISS KATIE THOMPSON, Route No.3,
Manassas, Va.

WHITE WYANDOTTES.

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

R. ELSAESSER, Meherrin, Va.

**A JOURNAL OF EASTERN
TRAVEL.**

Article No. 6.

The Temples and Shrines of Nikko.

As in the European cathedrals, the temples are the depositories of art, and the beautiful shrines of Nikko, blazing in red and gold laquer, are a mass of elaborate carving and painting, a museum as well as a tomb. To visit them we set out on foot by the Pilgrims' Path. The first object to attract attention was the sacred Red Bridge, swept away in a recent flood, but now restored. This is opened once a year for a religious procession to pass over. Ascending the opposite slope through an avenue of caryotomias, we visited the Sambutso-o, or Hall of Three Buddhas, with huge gilt image of Kwanna, Goddess of Mercy. Behind this building is the Sorinto, a column set up to avert evil influences. In the garden were some tea plants in bloom, and we gathered a spray of the rich green leaves and white flowers. Passing further under a granite torii covered with inscriptions, we came to the five storied pagoda, with painted carvings of the signs of the Zodiac around it. We then went up some stairs and through the gate of the Two Kings, guarded by the open and the closed mouth Korean dog. Entering a court, we began to notice the exquisite wood carvings of mythological animals with power to avert evil, fabulous beasts with power of speech, lions, tigers and elephants and a conventional design of peonies and bamboos. The first buildings to the right are the storehouses containing the treasures and relics. Close by is the stable for the sacred white pony whom we fed with beans. Over the stable door is the carving of the Nikko monkeys, San-biki-zarn, with hands over eyes, ears and mouth. They neither see, hear nor speak evil. Stone images

**TAYLOR'S
WHITE WYANDOTTES**

Are Again on Top

Having won in Richmond, at the Virginia Poultry Association, December 7-12, 1908, 1st cock, 1st cockerel, 5th hen and 5th pen hens, also capturing the Breeders' silver cup and two medals from the National Wyandotte Club, as well as association ribbons.

A limited number of cocks for sale. Sold out of cockerels and pullets. Orders for eggs booked now and delivered in order as received. Write me for prices. Correspondence a pleasure.

R. RANDOLPH TAYLOR
Hickory Bottom Poultry Farm,
R. F. D. 2, Beaver Dam, 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.

WHITE WYANDOTTES.

Rose and S. C. Rhode Island Reds. Eggs for hatching, \$1 per 15; \$1.75 per 30; \$2.75 per 50; \$3 per 100. Utility strain. Satisfaction Guaranteed.
Valley View Poultry Yards.

**J. D. Glick, Prop. Route 1,
Box 41, Dayton, Va.**



"EAST VIEW."

Silver-Laced Wyandottes exclusively Stock from J. W. Miller Co., Ill; free range; eggs \$1 for 15, \$2.50 for 50; \$5.75 for 100.

Mrs. W. S. Chichester, Aquasco, Md.

**S. C. BROWN LEGHORNS,
WHITE PLYMOUTH ROCKS.**

HEAVY LAYERS.
Eggs \$1 Per 15.

WHITING'S POULTRY YARDS,

MAMMOTH BRONZE TURKEYS
WHITE TURKEYS
BUFF PLYMOUTH ROCKS
WYANDOTTES
GEESE MAMMOTH BUFF VERY RARE
MAMMOTH TOULOUSE
GUINEAS AFRICAN WHITE
PURPLE VERY RARE

JOHN C. FOWKE, Baldock, S. C.

**MAMMOTH
 BRONZE TURKEYS**

57 beautiful, pure-bred toms and hens for sale.

ENGLISH SETTER PUPS.

Good ones, Blue Belton strain. Also Berkshire Pigs entitled to registration. Write your wants.
 MRS. GEO. M. WEST, Vinita, Va.

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.

**RICHMOND
 COLLIE KENNELS**

Pedigreed Collie Puppies, sable and white. Bred right and are right. Blue ribbon stock. \$10. See them.

W. J. STRAIN,
 Mechanicsville Farm, Richmond, Va.

**AT STUD
 Southern Sentinel**

(A. K. C. 123303.)

The above superb Collie dog, of very finest blood lines, is offered for use to a limited number of approved good bitches. Fee and pedigree on application.

Choice young Stock of both sexes for sale at moderate prices.

SHERBROOKE COLLIE KENNELS,
 Culpeper, Va.



Reg. Poland-Chinas.

Sunshine Perfection Strains.

Choice 3 months pigs, either sex, \$5; Gilts and Service Boars, \$10 to value.

\$15. Write for prices on any age wanted. All stock healthy and vigorous.

F. W. HOUSTON, Clifton Farm,
 Lexington, Va.

OAK GROVE FARM

Offere some first class Essex Pigs, May and June delivery.

Southdown Lambs for June and July. Also an extra strain of firm, sound, white field Seed Corn in ears and shelled. Runs in weight from 53 to 60 lbs. per shelled bushel.

L. G. JONES, Tobaccoville, N. C.

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.

of these monkeys are often found set up on the highway as an object lesson.

At the side of this court is the holy water cistern, hewn out of one solid block of granite and guarded by a pair of carved, winged dragons. In the centre of the court is a bronze torii with the Tokugawa cres, three asarum leaves in gold. The torii, a large open gateway, marks every Shinto shrine. Another flight of steps led to a court filled with votive offerings. There were two stone lions given by Imetsni, a candelabrium given by the King of Suchu, a bell given by the King of Korea, and a second candelabrium sent from Holland. These three States were considered vassals of Japan. For the rest, the court was filled with stone lanterns, the gifts of daimyos, which are even now lit on festive occasions.

To the left is the temple of Yakushi, the patron saint of Jeyasu, the interior, a rich blending of gold and color, with a sepia drawing on the ceiling. Going on, we reached the Yomei-mon, or two storied gate. The fence on either side has carved mountain birds and water fowl in medallions. The columns supporting it are in geometrical designs. The niches are lined with graceful arabesques and filled with images. The architrave of the second story is adorned with white dragons. Above the architrave of the lower story projects a balcony which runs around the building. The railing is formed of children at play. Below it are grouped Chinese sages and immortals. The roof is supported by gilt dragons' heads, with gaping, crimson throats, and from the top a demon looks down.

In a third court we saw the kagura, a religious dance, performed by a priestess in a flowing red robe with a white overdress. She waved a fan backwards and forward over her head and sang in a monotone as she postured for us in a solemn, graceful style. In the same court are the palanquins used in religious festivals, when the deified spirits of the dead are supposed to occupy them.

The Kara-Mon, or Chinese gate, made of Chinese inlaid wood, leads to the main shrine, surrounded by a fence, with a carved trellis. We had to remove our shoes before entering it, and on the threshold the magnificence of the interior took our breath away. Rich in gold with carved ceiling, the walls panelled in high relief of phoenixes, it seemed the very climax of splendor. On the altar were the emblems of Shintoism, the gohei or banner, and the mirror where-in one may see his faults. For a small consideration, one of the clean shaven priests, in his flowing black and gold robes, conducted a service for us, intoning great prayers and presenting us with sacred saki and rice cakes, stamped with the Tokugawa crest. At the inner shrine we

Berkshire Hogs

A few young Berkshire Sows, Gilts, bred and open; young Boars, ready for service, and lots of pigs at all times.

Breeding, individuality and prices are right.

Single Comb³ Brown Leghorns

Eggs for Sitting.

W. A. WILLEROY,

Brett, King William Co., Va.

**QUALITY
 Poland - Chinas.**

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.

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.

SUNNYSIDE BERKSHIRES.

Boars in service, "Premier Duke," son of Premier Longfellow; "Peerless Premier," sired by Lord Premier III., and imported "Hightide Commons." Also a number of sows rich in Premier blood. Prices reasonable.

W. R. WALKER, Union, S. C.

**DUROC
 JERSEY
 SWINE**

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

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

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.

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.

DUROC-JERSEY and TAMWORTH SWINE.

Sterling Stock Farm,

R. W. Watson, Petersburg, Va.

Please mention the Southern Planter.

Egg Production

is dependent on the condition of your hens. To get the best results from your fowls, you must keep them in perfect health. We recommend *Black-Draught Stock & Poultry Medicine* to regulate the liver, bowels and digestive organs, and to keep your poultry generally in a condition to yield you a profit.

Note what Jno. F. Childress, the White Leghorn Specialist of Sweetwater, Tenn., writes: "I feel it my duty to state to you the benefits I got from the use of *Black-Draught Stock & Poultry Medicine*. I keep it on hand all the time, and if any of my flock fail to eat up their feed and droop around, all I have to do to adjust the matter is to give them a few feeds of *Black-Draught Stock & Poultry Medicine*. I heartily recommend your remedy to my customers, for I know it will do the work." Try it.



Childress' S. C. White Leghorns
World's Best Egg Producers

BLACK-DRAUGHT STOCK & POULTRY MEDICINE

Sold by All Reliable Druggists and Dealers.

P 4

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.

AYRSHIRE BULL CALF. (Registered.)

Two months old, large and strong. Color white, small red markings about head, Sire, "Statesman of Spring Hill," 9,728; dam, "Queen Ester," 22,563, milk yield in 2 year old form 7,652 lbs in 12 months. Price \$25 on cars Warrenton. Address,

C. R. DEARE, Manager,
Airlie Farm,
Warrenton, Virginia.

Devon Herd Established 1884. Hampshire Down Flock Established 1880.

DEVON CATTLE

BULLS AND HEIFERS, HAMPSHIREDOWN SHEEP, RAMS AND EWES.

ROBERT J. FARRER, Orange, Va.

Edgewood Stock Farm DORSET SHEEP

Our lambs are coming again, so we are ready to book your orders. Don't delay writing. Our lambs are out of large, strong-boned ewes and sired by rams descended from the best blood in England. Give us a trial. We can please you. Address,

H. H. ARBUCKLE, Maxwelton, W. Va.

unbelievers had to stop, and we went to see the Mausoleum of Jeyasu, climbing two hundred moss-grown steps which wound around the hill. The tomb, shaped like a pagoda, is a single bronze casting of a light color, produced by the admixture of gold. In front stands a stone table bearing a candlestick, the sacred turtle supporting a stork, an incense burner in bronze, and a vase of lotus blossoms and leaves. The whole is surrounded by a stone wall, entered by a bronze gate. The shrines of Imetsu are much less elaborate, though the tomb itself is on the same order. Buddhism shows its influence here in the splendid high altars, rich in ornaments and sacred vessels. We had to go many times to get even a superficial impression of these wonders, and were always followed by the curious glances of the priests. They cannot understand why strangers come so far to visit their temples. The spirit of travel has not yet reached their quiet cloisters.

We had by no means exhausted the resources of Nikko when we had seen the shrines. One of the chief attractions are the shops where one may get carved wood furniture, furs and water colors, specialties of the place, as well as curios in general. The shopkeepers were very friendly, and invited us to come in and look and talk, even if we did not buy. We were just in the wake of the Taft party, and many were the registers brought forth to show us their names. Post cards of their progress were thrust upon us,

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.

S. 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.

Fine Angus Calves.

Two beautiful registered yearling Angus heifers, just bred to our herd bull, at \$60 each.

W. M. WATKINS,
Saxe, Charlotte County, Va.

Aberdeen-Angus Bulls

FOR SALE.

Reporter Lad, No. 97135, 3 years, excellent animal, can't use longer on my herd; also 2 grade Angus bulls, rising 1 year. Price and full particulars.

J. McPHAIL, R. F. D. 5, Richmond, Va.

Walnut Hills Herd.

Twenty-five Registered Angus females and two bulls for sale.

J. P. THOMPSON, Orange, Va.

RED POLL CATTLE

The great breed for the South and the greatest of all breeds for milk, butter and beef. We have the right breeding and good individuals at prices to suit.

DORSET SHEEP

Are reliable for early lambs. Early lambs are what the Southern farmer, through natural advantages, can beat the world on.

POLAND CHINA HOGS.
PURE-BRED POULTRY,
ALBEMARLE PROLIFIC SEED CORN,
ALBEMARLE PIPPINS
and
FANCY RED APPLES.

Arrowhead Stock Farm,
SAMUEL B. WOODS, Prop.
CHARLOTTESVILLE, VA.

REDLANDS FARM RED POLLED CATTLE

One splendid young registered Red Poll Bull; beautiful conformation; exceptional animal.
One fine Red Poll Bull calf.
Three specially fine pure-bred

SHROPSHIRE BUCKS

2-year-olds.
Address:

AARON SEAY, Manager,
Carter's Bridge,
Albemarle Co., Va.

RED POLLS

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.

Please mention the Southern Planter.

ROCK SPRING FARM

Offers for Sale

REGISTERED GUERNSEYS

of the best strains; Registered Duroc a neck-d.B shire Swine; Breeding stock and eggs from B. Rocks, Pekin Ducks, White Holland Turkeys and Guineas.

H. T. HARRISON, Prop. Leesburg, Va.

WOODLAND FARM DORSETS.

A few yearling rams and a lot of ram lambs for sale. Order early before the flock has been culled over. We are offering a splendid bunch of ewe lambs, excellent quality and bargains at the price.

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

Please mention the Southern Planter.

and many trinkets in the shops were recommended to us because "Princess Alice" had gotten similar articles.

Turn where you may in Nikko, you will find lovely walks. One of our favorites was along the sacred river to the thousand images of Amida, a powerful diety of the West. They stand in a row along the river banks, and many have been swept away by its overflow. Time has played havoc with the rest. Noses, ears, arms and, in some cases, even heads are missing, but they are still held in great reverence. Children pile up stones before them and prayers and offerings are made to them. An obliging attendant at the tea house told us their history in broken English and showed us some queer inscriptions, partly in Sanscrit, on the rocks.

Another time we went on a kodaking trip to Urami-no-take water fall. It was Sunday, but the mission church was closed and everything else went on as usual. We walked this time and found ample materials on the road for snap shots. Our first picture was a wayside shrine with a tiny torii before it, and offerings of rice set out for the gods. Then we got a funny little train bringing down copper from the Ashio mines. Pack horses with their drivers made good subjects, and we got the pathetic figure of a little peasant woman, dressed like a man, and carrying on her back a load too heavy for an animal. As for the children, we never wearied of taking them. Japan is a paradise for them. Race suicide is the only sort not practiced in Japan, and that is unknown. Baby San is the most important member of the household. Tied to the back of its little sister, herself almost a baby, it smiles at all comers in the most beaming way and seems ignorant of the art of crying. The children were always pleased to be taken and assumed the most comical attitudes and expressions. A very pretty Japanese girl passed us in a kago, a swinging basket of a chair, carried by two coolies on a pole over their shoulders, and we took a snapshot of her as she passed. We nearly exhausted our films before we got to Urami, and used our last on two shy little girls who peeped at us from above the fall.

During our stay at Nikko ten thousand sailors were given passes to visit the shrines and offer thanks for peace. Their neat appearance as well as their demeanor made a most favorable impression on us. They behaved in the most decent and orderly manner, without a trace of roughness or boisterousness, and we never saw one of them drunk. Some of the officers in charge spoke a little English and would talk with us in the tea houses. We wondered how so many people could be sheltered in the village, but we were told that the country around opened its doors, or rather, its screens to them, and food was supplied them gratis. We often saw them in the

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.

FINE BROOD MARES CHEAP

One Bay Mare, 9 years old, weight 1,200 lbs. Very quick and active. Drives well and a reliable worker everywhere. A first-class brood mare now bred to a fine hackney stallion.

One Light Bay Mare, 7 years old, weight about 1,050 lbs. A No. 1 saddle and harness animal, perfectly gentle and reliable everywhere. First class brood mare now bred to a fine hackney stallion. Both of these mares are well bred, both are home raised and both will be sold under a full written guarantee.

WM. M. WATKINS,
Saxe, Charlotte County, Va.

A FEW HIGH-CLASS

SADDLE

and

COMBINATION HORSES

One registered gelding, coming 5 years, a show horse, thoroughly broken to saddle and harness.

RED POLL CATTLE

Some Choice Stock.

M. M. JARMAN, Elkton, Va.

SADDLE STALLION

MONTGOMERY KING, (Reg. No. 2,035, Vol. V.) seven years old, for sale.

PEDIGREE.—Sire, Forest Denmark, 153; Grand sire, Mambrino Forest; Dam, Pattie, No. 23, by Blue Jeans No. 3; 2d Dam, Puss, No. 109, by Rob Roy, No. 62.

Weight, 1,125 lbs. 15 $\frac{1}{4}$ hands, five gaits, bay, fine style and action, one of the best bred horses from Ky. Will sell reasonable as his colts will be in his way soon. Guarantee him a sure sire and sound. Will be found at J. G. Buford's Farm, Dublin, Va.

J. G. BUFORD & SHANNON BROS.,
Dublin, Va.

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

"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.

REGISTERED PERCHERON STALLION

Dark gray with star in forehead; will be two years old in April; very large, beautiful form, straight limbs, flat boned, good feet and eyes.

Also some beautiful pure-bred rough-coated

Scotch Collie Puppies.

Having sold my property and expect to leave here, will dispose of above stock cheap, considering quality.

F. B. ALBERT,

Route 4, Roanoke, Va.

Pure-Bred Percheron Stallion

48975

Three years old, May, 1909; prize-winner at two horse shows this season; blue ribbon pedigree, descended on dam side from Ficklin's celebrated importation of 1866, than which, no better ever came to America. Splendid individual. Color, grey; weight, 1,500 pounds; price right. For further information, apply to

D. M. CLOYD, Dublin, Va.

TWO ENGLISH

Shire Stallions

for sale; gray and black; 4 and 5 years old with 4 and 5 crosses by imported horses; good individuals. Prices reasonable.

B. F. A. MYERS, Clifton Station, Va.

Pure-Bred

PERCHERON and BELGIAN HORSES

We have more and better horses and will sell them cheaper than ever before. A nice lot of young stallions from weanlings up; also mares.

C. A. ALEXANDER & CO.,
Harriston, Augusta Co., Va.

SHETLAND PONIES.

Ten to twenty richly bred, registered brood mares and stallions for sale. Imported from most famous herds in the Shetlands.

MONTROSE SHETLAND PONY FARM,
Cartersville, Va.

FOR MORGAN COLTS

and Fillies and High-Bred Fox Hound Puppies. Address,

Dr. JOHN D. MASSENGILL,
Blountville, Tenn.

Please mention the Southern Planter.

temples offering prayers of thanksgiving and making presents to the priests and gods.

Railway travel was so congested by their coming that we did not attempt to get away from Nikko for some time, but lingered in the temple groves and gardens. One day we visited the public school of six hundred children and were shown over the building by the head master who assured us he was honored to receive us. The children were in the yard at recess and he told us grandly they were practicing for Olympic sports. We went out to see them, and were surprised to see how well they got on with their exercises, counting ichi, ni, son, shi, go (1, 2, 3, 4, 5). Our appearance threw them into a titter, and those not under the trainer's eye nudged each other and gave sly little kicks and winks, just as children do in our country.

But now we grew anxious to turn our faces towards Tokyo, as we had engagements there which could not be put off, and we sent to the station to see what could be done about a train. The porter succeeded in getting a second-class compartment for us, the first-class ones being all reserved for naval officers for several days to come. Casting a last look at the mountains, and waving farewell to the trinket dealers, we rode away to the station, which we found crowded with sailors and their friends, all decorated with maple leaves. Inside, some geishas singing English songs held court. We made our way through them and were just entering a second-class compartment when an officer stopped our porter and, turning to us, said in perfect English that he hoped we would take the first-class compartment reserved for officers, as they would be glad to make the exchange. He put it in such a way we could do nothing but accept the offer, and we tried to thank him as politely for his kindness as another Japanese would have done. After all, therefore, we soon found ourselves comfortably settled in a first-class compartment for our journey.

"ELLERSLIE" OFFERINGS.

R. J. Hancock & Sons, Charlottesville, Va., have a couple of advertisements in this issue, to which attention is invited. Their offerings consist of Shorthorn cattle and the Thoroughbred stallion, Aureus. The reputation of this farm is sufficient guarantee of the quality of stock offered.

JOHN DEERE PLOWS.

Deere & Co. have a very attractive advertisement in this issue, to which your attention is invited. Inasmuch as the plow question is such a prominent one just now, it would be very well for you to send for their booklet No. 5, which gives some valuable information in an interesting manner on the subject.

THE KENTUCKY JACK FARM



is the wholesale home for jacks, as we breed and raise the big mammoth Kentucky jacks, and sell you a first-class jack 25 to 50 per cent cheaper than a dealer or speculator can. Write to-day for prices on jacks, jennets, and mules. A large lot to select from.

JOE. E. WRIGHT, Junction City, Ky.

COOK FARMS.

JACKS, SADDLE HORSES, TROT-
TING AND PACING STALLIONS.

We are the largest Breeders and Importers of Jacks in America. Write us your wants.

J. F. COOK & CO.,
Lexington, Ky.

Branch Barn,
Wichita, Kansas.



Angora Goats

Largest Angora Goat Proposition on earth in EVERY WAY.

WE BUY MOHAIR; BUY, BREED AND SELL ANGORA GOATS.

Prizes from every Fair ever exhibited at. Write us for anything in this line you want. Also Mexican Burros for sale. Write for descriptive circular of Donkeys for your children.

DIAMOND V RANCH,

Main Office, Stokes, P. O., 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.

Rockbridge Co., Va., Jan. 5, '09.

The Southern Planter is the greatest bargain I ever bought, every number being worth more than a year's cost. If I were younger and more enterprising and would follow its suggestions, it would make my fortune. Editor Jackson is simply the finest on earth. That little red skull cap covers more horse sense and cow sense and legume sense and various other sorts of useful, practical sense than any cap I am acquainted with. May 1909 be the most prosperous year in your history. J. D. H. ROSS.

WANT ADS.

Rates 2 cents per word. Cash with order. Initials and figures count as one word; 25 cents minimum charge.

POULTRY, ETC.

HIGH CLASS WHITE WYANDOTTE Eggs. Our First Mating contains hens scoring ninety-five and pullets scoring ninety-three and over under Drevendstedt. Cockerel with best low well-spread tail we have seen this year and fine fellow otherwise. Our Second Mating contains pullets scoring around ninety-two and headed by cock two years old upon which has never been found a particle of "flicking" or brassiness. Perhaps the whitest Wyandotte in the South. Eggs First Mating, \$5; eggs Second Mating, \$3; eggs other matings, \$1.50. (No inferior birds used.) See general ad. this number Planter. Special bargains in surplus cockerels and pullets. Standard-Bred Poultry Farms, Burke's Garden, Va.

ROCKLAND POULTRY FARM. Barred Plymouth Rocks, barred to the skin, only one breed on yard. Strictly fresh eggs \$1 for 15, \$1.50 for 30; \$5 for 100. Beautifully marked cockerels \$1.50 and \$2 each. Eggs for hatching from Pearl Guineas and R. C. B. Game Bantams, \$1 for 13. A trial order will convince you of the excellency in quality of my birds. Mrs. Keesee Brooking, Somerset, Va.

S. C. BROWN LEGHORN EGGS FROM blue ribbon strain. My birds are from Brace's 1st prize pen at Madison Square Garden, New York and from pen taking 1st at Va. State Fair, Richmond Poultry Show, and Jamestown Show. Eggs from best pen \$2.50 per 15; special price on incubator lots for utility. Few grown birds to spare. Evergreen Farms, W. B. Gates, Prop., Rice Depot, Va.

OUR "SHENANDOAH" STRAIN SINGLE Comb White Leghorns are birds of business and beauty. Bred for superior egg production and exhibition purposes. Snow white, yellow legs, perfect in comb and carriage. Eggs from our best pens \$1.50 per 15, during March. After April 1st, \$1 per 15, \$1.50 per 30, \$4.50 per 100. Sterling Poultry Yards, P. O. Box 626, Staunton, Va.

RINGLETTS SINCE 1895. WE CAN SELL you strictly high-class eggs from exhibition Ringlet Barred Rocks, the kind you can't equal for less than double, either cockerel or pullet matings, 15 for \$3; 50 for \$5; from grand utility birds \$1 for 15; 50 for \$3. We positively guarantee fair hatches and strictly high quality. Monroe Grove Poultry Farm, Aldie, Va.

WILMONT EGGS: SINGLE COMB Reds. Pen headed by bird bred from Madison Square Garden winners. Barred Plymouth Rocks (Bradley) headed by 12½ lb. cock, which won prize as cockerel 1907 at Hanover, Pa., show. \$1 per 15; \$3 for 50. Satisfaction guaranteed. A brass canary cage cheap. Mrs. F. E. Williams, Charlottesville, Va.

YOUPELL'S WHITE WYANDOTTES. Can sell you eggs from pens scoring 93½ to 94½ points. Good layers. Square dealing my motto. Write for Prices. J. C. Fishel world's best strain. Mrs. J. A. Youell, Big Stone Gap, Va.

BARRED ROCK EGGS—A FEW SIT- tings of eggs from our First Mating at \$5 a sitting. This pen has in it 1, 2, 3, 4 pullets at Bristol, Dec. 1908, under Drevendstedt. We offer this as an advertisement. Prize-winners in these eggs certainly. Other matings \$1.50 a sitting. (See general ad.) Standard-Bred Poultry Farms, Burkes Garden, Va.

RHODE ISLAND REDS, ROSE OR Single Comb. Large kind, laying strains. My fowls are of the very best blood and as fine as any in the country. Fifty exceptionally fine cockerels from \$1 to \$2 each. Trios \$2.75 to \$5.00. Eggs from prize-winning strains, \$1.25 for fifteen; thirty, \$2.00; fifty, \$3 and \$5 per hundred. Thos. S. Turner, Dickens, Va.

INDIAN RUNNER DUCKS — MY Ducks come from the best duck breeders in the United States. My birds have free range and their eggs last season ran high in fertility and hatched vigorous ducklings. Eggs alone for sale, 11 for \$1; 50 for \$4; 100 for \$7. W. W. Henry, Jr., Broad Run, Fauquier Co., Va.

S. C. W. LEGHORN EGGS FROM HIGH Class stock. Hens in this mating scoring 95 under Drevendstedt. Cockerel from First Jamestown Pen. Eggs guaranteed fertile. Stock absolutely healthy. \$1.50 a sitting. Standard-Bred Poultry Farms, Burke's Garden, Va.

SOME CHOICE STANDARD BRED— Rhode Island Red cockerels for breeding purposes left. Both combs. Price from \$1 to \$5. The Valley Poultry Farm, Maurertown, Va., R. F. D. No. 1.

DO YOU WANT BARRED ROCKS FOR profit! Then get Blue Ringlets, they are prize winners. 4 years careful improvement has made them superb. Cockerels \$1.50 to \$5; Pullets \$1.50 to \$3.50; eggs \$1 for 13. Star Poultry Yards, Manchester, Va.

EGGS FROM S. C. RHODE ISLAND Reds that are free of smut and red to the skin. \$2.50 per 15; Utility \$1 per 15; few cockerels to spare. Give me an order and you will be pleased. Evergreen Farms, W. B. Gates, Prop. Rice Depot, Va.

MAMMOTH BRONZE TURKEY EGGS \$3 per 15. Buff Orpington \$1 per 15; Pekin Ducks \$1 per 12. We handle nothing but pure-bred stock of the very best strains. Place your orders ahead. B. O. Poultry Yards, Route 1, Rapidan, Va.

I AM BOOKING ORDERS FOR EGGS from strong, vigorous farm raised birds. Baby chicks for sale March and April. Correspondence cheerfully answered. Can spare a few choice trios. Belmont Poultry Farm, Luray Va.

WHITE LEGHORNS. LAKEWOOD strain exclusively; Mammoth Pekin Ducks, Weller strain; eggs from these famous layers \$1.50 per sitting. Address J. W. Carter, Johnson City, Tenn.

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.

WHITE WYANDOTTE EGGS FOR sale. \$1 per sitting of 15. George Osborne, Hurlock, Md.

COLUMBIAN WYANDOTTE COCKER- els and eggs per sitting, each \$1.50. C. V. Campbell, Oliver, Va.

WYCKOFF STRAIN S. C. W. LEG- horns. Bred to lay. Eggs \$1.50 for 15; \$5 per 100. Satisfaction guaranteed. W. H. Densmore, Route 3, Roanoke, Va. Formerly Va. Poultry & Berry Farm, Sutherland, 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.

RICH, GOLDEN BUFF WYANDOTTES. The ideal fowl. Great winter layers. Fine for the table. Good mothers and rustlers. Eggs from select matings, \$2 for 15. Some fine cockerels yet. Geo. W. Csterhout, Bedford City, Va.

FOR SALE—WHITE ROCK, WHITE R. C. Leghorn and Black B. Red Game eggs, 20 for \$1. Also Game Roosters for sale. Mrs. A. T. Smith, Bumpass, Va.

WHITE WYANDOTTES, PRIZE-WIN- ners and splendid egg-producing strain. 15 eggs \$1. Mammoth Bronze Turkeys from show winners and best strains. 12 eggs \$2.50. Sunnyside Farm, Jonesville, Va.

MAMMOTH BRONZE TURKEYS— three toms, one hen, September. Toms \$3 each, hen \$2.50. First money will get the turkeys. C. T. Johnson, Beaver Dam, Va.

BARRED AND WHITE P. ROCKS, Silver Laced and Buff Wyandottes, White and Brown Leghorns. Eggs from best laying strains \$1.20 for 15, \$6 for 100. John E. Heatwole, Harrisonburg, Va.

SNIGLE COMB WHITE LEGHORNS. Wyckoff strain exclusively for six years. Positively no inbreeding; new blood from headquarters this year. Eggs \$1 for 15. Cotton Valley Farm, Tarboro, N. C.

FOR SALE—M. B. TURKEYS, COR- nish Indian Games, S. C. Rhode Island Reds and Wyandottes; will sell at reasonable price; all pure-bred. Mrs. J. H. Price, R. F. D. 2, Charlotte C. H., Va.

EGGS 85c. FOR 15. BUFF ORPING- ton, White Wyandotte, Black Minorca, Rose and Single Comb Brown Leghorns, Indian Runner and Pekin Duck eggs, 90c. for 12. Mrs. Frank Johnson, Route 1, Louisa, Va.

EGGS—S. C. BUFF ORPINGTONS AND White Wyandottes \$1 per 13. M. B. Turkeys \$2.50 per 11. All from good birds. I took two blue and one red on these birds at county fair. Angora goats. C. C. Russell, R. No. 2, Hagan, Va.

HAVE MATED MY YARDS AND NOW booking orders for Silver Wyandotte eggs, \$1 for 15. Bred from New York and Chicago winners. J. B. Beamer; Pickaway, W. Va.

FOR SALE—WHITE PLYMOUTH Rocks exclusively, Fishels direct. Cockerels \$1. Eggs \$1.50 for 15. Satisfaction guaranteed. Brooke B. Gochnauer, Upperville, Va.

CORNISH INDIAN GAMES. PURE- bred exhibition stock bred from best winter layers. 15 eggs, \$1.50; 30, \$2.50. Females bred from prize-winners, \$1.50 and \$2 each. S. A. White, Box P, Timberville, Va.

EGGS FROM SPECIAL MATINGS OF pure-bred Single Comb White Leghorns; farm raised, hardy and bred to lay. \$1.50 and \$2 per 15. T. D. Ganse, Bedford City, Va. "Vista Farm," Route No. 6.

POULTRY, ETC. (Continued).

EGGS BOTH COMBS AND LOT SINGLE comb pullets for sale. We have the best in Reds, Blue Ribbon, shape and color, winners. Circular will interest you. W. Shook, McGaheysville, Va.

MOUNTAIN VIEW POULTRY FARM—For sale, Cornish Indian Games, S. C. Minorcas, and Pit game cockerels \$1 each. All are of the best strain. S. H. Carpenter, Novum, Va.

BOURBON RED TURKEY EGGS \$4 per 11. Rose Comb Brown Leghorn chickens. Eggs \$1 per 15, \$4 per 100. Mr. and Mrs. G. W. Price, Belmont, Ohio.

SINGLE COMB RHODE ISLAND REDS \$1.50 sitting 15 eggs. From the same birds I am breeding, headed by a fine cockerel. Jno. Herold, 615 6th St., Richmond, Va.

EGGS FROM PURE-BRED S. C. W. Leghorns and White Plymouth Rocks \$1 for 15. Choice Leghorn cockerels \$1 to \$1.25. T. C. Morton, Rice Depot, Va.

PURE-BRED EGGS FOR SALE—ROSE and S. C. Rhode Island Reds and Buff Orpingtons, \$1 per 15; \$2 per 50. Fine laying strain. Wild Rose Poultry Farm, Gold Dale, Va.

HIGH CLASS WHITE PLYMOUTH Rocks exclusively. 1st prize pen at Washington, 1909. Stock and eggs for sale. Berry Poultry Yards, Herndon, Virginia.

BUFF ORPINGTONS EXCLUSIVELY—Cockerels \$1; eggs 75c. per 15; \$2 for 50; Indian Runner Duck eggs \$1 for 11. Mrs. E. P. Wood, Beaverdam, Va.

CHOICE S. C. B. LEGHORN COCK-erels and pullets, also eggs of above breed. B. P. Rocks and S. C. W. Leghorns all pure-bred. \$1 for 15. Mrs. L. G. Irving, Pamplin City, Va.

BARRED PLYMOUTH ROCK EGGS—from exhibition stock. Orders filled promptly. Satisfaction guaranteed. Charlie Brown, Route 1, Cartersville, Va.

FOR SALE: BUFF PLYMOUTH ROCKS Single and Rose Comb Buff Leghorns. Choice stock. Satisfaction guaranteed. Send for my circular. J. W. Silcott, Bluemont, 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.

EGGS FOR SALE. S. C. BROWN LEG-horn and Barred Plymouth Rocks. Prices reasonable. Satisfaction guaranteed. Mrs. C. M. Bass, Rice Depot, Va.

EGGS FROM PRIZE-WINNING BUFF Rocks, White, Black and Silver Duckwing, Leghorns, \$1.50 per 15. Melrose Poultry Yards, Manchester, Va.

BUFF COCHIN BANTAMS, SINGLE or trios. Also eggs for sitting. First prize in December. Hickory Hill Farm, Brookland Boulevard, Richmond, Va.

S. C. RHODE ISLAND REDS, CUSH-man and Tompkins strain. Eggs, choice pen \$1.50 per 15; yard, one dollar. Mrs. Edward Meanley, Toano, Va.

A FEW RHODE ISLAND REDS LEFT. A bargain if sold at once. J. O. Barksdale, Red Hill, Va.

FINE BOURBON RED TOMS FROM eggs from Wildwood Poultry Farm, Williamsport, Ohio. Price \$4 each. Mrs. E. T. Pierce, News Ferry, Va.

EGGS FROM PURE-BRED R. C. Rhode Island Reds, Indian Runner and Pekin Ducks. Mrs. Lee Johnson, Manassas, Va. Route 1.

TWENTY-FIVE WHITE HOLLAND Turkeys for sale. Toms \$4 each. Hens \$3, Trio \$9. E. M. Harnsberger, Orange, Va.

FOR SALE WHITE WYANDOTTES—Cockerels \$1; hens \$1; 16 eggs \$1. Mrs. George Ensor, Route 2, Midland, Va.

INDIAN RUNNER DUCK EGGS FOR sale, \$1.25 per 11. Pure-bred from ducks with access to running water. Wm. Gillespie, Leesburg, Va.

300 PURE-BRED S. C. W. LEGHORN chicks hatched 1st of February, for sale the 1st of April. Eggs cheap per 100. Mrs. J. R. Pace, Oxford, N. C.

CHOICE SINGLE COMB BUFF CRP-ington and Rose Comb Brown Leghorn eggs, \$1.50 per 15. Allen Wood, Petersburg, Va. Route 4.

BARRED PLYMOUTH ROCK AND Black Langshan eggs \$1.25 per sitting or \$2 for thirty. Robert Allardice, Hurlock, Md.

BARRED PLYMOUTH ROCK AND Buff Orpington eggs, 75c. per sitting of 15. Bred from prize-winning stock. Mrs. W. M. Jones, Crofton, Va.

R. C. RHODE ISLAND RED AND White Wyandotte eggs at \$1 per sitting (15); \$5 per 100. John Campbell, Route 2, Beaver Dam, Va.

BUFF ORPINGTON EGGS FROM NICE large, pure-bred fowls, \$1 per 15; \$2 per 50. Miss Annie V. Herndon, Gold Dale, Va.

EGGS FOR SALE: BARRED PLY-mouth Rocks, A. C. Hawkins strain, 16 for \$1., 100 for \$4. E. C. Spain, Church Road, Va.

EGGS FROM CAREFULLY BRED, free range Rhode Island Red chickens \$1 per 15. A few Muscovy drakes left. W. B. Coleman, Mannboro, Va.

EGGS FROM SPECIAL MATINGS OF pure-bred S. C. Brown Leghorns, \$1 for 15. Theo. Schmitz, Route 5, Richmond, Va.

FOR SALE—EGGS FROM PURE-bred Brown Leghorns, 85c. per 15 eggs. J. W. Smith, Clover, S. C.

FAVEROLLES—THE GREAT WINTER layers. Eggs 13 for \$1.25, 26 for \$2. L. O. Stickley, Strasburg, Va.

R. C. WYANDOTTE COCKERELS, \$1.25 and \$1 each. Mrs. F. E. Carter, Rice Depot, Va.

EGGS, EGGS, EGGS, S. C. B. LEG-horn eggs at 75c. per 13. Stock guaranteed. B. G. Bass, Rice, Va.

SILVER LACED WYANDOTTE EGGS for sale. \$1 per sitting of 15. R. Osborne, Hurlock, Md.

EGGS FROM PRIZE WINNING BLACK Leghorns. Extra fine birds. \$1 per 15. Mrs. S. F. Badgett, Farmville, Va.

EGGS FROM BRED TO LAY WHITE Wyandottes. 15, \$1.50; 30, \$2.50. Elbert White, Whitesburg, Tenn.

FOR SALE—WHITE WYANDOTTE eggs for hatching. Pure-bred. Address Mrs. James Burton, Elsom, Va.

BERKSHIRE PIONEER POULTRY Yards offer Golden Penciled 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.

FAIRFIELD FARMS, NOKESVILLE, Va. Indian Runner Ducks, S. C. White and Brown Leghorns, \$1.25 per single sitting, \$1 for two or more, all pure-bred, hardy, free range stock and splendid layers. Fine lot of pigs now ready to ship from our choice herd of Registered Berkshires.

FOR SALE—\$15 FOR "MANDY LEE" 150 egg incubator and brooder, good as new. M. E. Jennings, Kelly's Ford, Va.

EGGS FROM PURE-BRED R. C. Rhode Island Reds. \$1 for 15. J. J. Gilliam, Farmville, Va.

RHODE ISLAND RED EGGS, \$1; PE-kin Ducks, \$1. Red Roosters 75c. W. E. Birch, Afton, Va.

R. C. RHODE ISLAND RED EGGS from choice matings, \$1 per 15. W. A. Yeary, Route 2, Jonesville, Va.

PIGEONS—MATED CARNEAUX, HOM-ers and Crosses at half others ask. Satisfaction guaranteed. Sidney Johnson, Boydton, Va.

FOR SALE—EGGS FOR HATCHING from pure-bred Silver-Laced Wyandottes, \$1 for 15. Miss Phaup, Pilkinton, Va.

PHEASANT EGGS—ENGLISH RING-neck, finest stock, \$2.50 per 15. Pamphlet instructions with order. Blue-ridge Pheasantry, Bedford City, Va.

LIVE STOCK.

FOR SALE OR EXCHANGE—A FINE Stallion (Tasso Direct 37797) for broken mules or horses. Tasso Direct is a member of the winning families and is a handsome mahogany bay, was foaled in 1902 and was bred at the famous East View Farm, New York. Tasso Direct traces five times to Hambletonian 10 and is by Direct 2.05½, the best son of Director 2.17. His dam is Mudrona 2.26 by Baron Wilkes 2.18. For further particulars address, James M. Cassell, Wytheville, Va.

NOTICE—JOHN DYE AND GOV. WOOD will stand at "Hawfield" and adjoining farms—Crane Co., Va., for season 1909. Hope to have patronage of old customers. Former thoroughbred bay stallion, 1,200 pounds, latter a black Spanish Jack, 1,200 lbs. Address "Hawfield," Grassland, Va.

HOLSTEIN BULL CALF, OUT OF cow now giving eight gallons, four per cent. milk a day. Born Sept. 14, 1908. Will sell right. \$35. Registered and transferred. Very large and well grown. Wm. W. Jackson, Bizarre Dairy Farm, Farmville, Va.

FOR SALE—TROTTING STALLION, Tearoleon 2.21¼; sire of Terolaine, 2.16¼ (5) and others. On account of lack of suitable mares in our locality we will sell or trade for a good saddle stallion. Address Rhodes & Bannister, Roanoke, Va.

FOR SALE—ONE BLACK SPANISH Jack 4 years old and 3 young Jennets. Prices low. Am overstocked. For further particulars apply to Geo. W. Wooding, Leesville, Va. On Virginian Railway.

LIVE STOCK (Continued).

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.

FOR SALE AT BARGAIN PRICES—
Combination horses, matched pairs. Mules and mule colts, Angus cattle, Berkshire hogs. Fine 8-year-old Jack. Oak Hill Farm, Wenonda, Va.

WANTED—SEVERAL HIGH CLASS
grade or pure-bred Guernsey or Jersey cows, fresh or due to freshen in March. Address Meadowbrook Stock Farm, Brandy, Va.

WANTED TO SELL OR EXCHANGE—
Choice registered Angus bull, 6 years old, for registered Angus bull, new blood wanted. C. Neale Stacy, Amelia, Va.

FOR SALE—REGISTERED POLLED
Herefords. Wilton, Anxiety and Howe strains. Prices moderate. Apply Samuel T. Earle, Jr., 1431 Linden Ave., Baltimore, Md.

FOR SALE OR EXCHANGE—YOUNG
Jersey cow fresh, Jersey bull calf. Some new farm machinery for breeding hogs or pigs. M. care Southern Planter.

FOR SALE—THE GREAT RACE
Stallion Cordova 2.17½. A big horse, a fast horse and a handsome horse. Percival Hicks, North, Mathews Co., Va.

LARGE YORKSHIRE PIGS 7 WEEKS
old \$7; 7 months males or females, \$15; year old bred Gilts, \$20. Correspondence solicited. W. E. Stickley, Strasburg, Va.

AM IN MARKET FOR A REGISTERED
Holstein Bull. One and one-half to two years old. Will not pay fancy price. What have you. W. J. Pfugradt, Doswell, Va.

FOR SALE—KENTUCKY JACK BRED
by J. F. Cook, Lexington. Black with white points, 5 years old, weighs 800. For further information write H. L. Reeves, Clement, Dinwiddie Co., Va.

FOR SALE—A NICE LOT OF BERK-
shire pigs three months old and a few sows bred. River View Farm, Rice Depot, Va.

FOR SALE—ONE STANDARD-BRED
Stallion and one fine Black Spanish Jack. Both very valuable and will be sold at a very reasonable price. J. T. Terrell, Doswell, Va.

BERKSHIRES—BOARS, SCWS, GILTS,
bred and open and pigs always. S. C. B. Leghorn eggs for sitting. W. A. Willeroy, Brett, Va.

WANTED 20 HEAD SHETLAND PONY
mares, one stallion. Do not care for fancy stock. M. M. Sutherland, Wytheville, Va.

FOR SALE—SEVERAL NICE STAND-
ard-bred horses, saddlers and harness, in pairs or single. C. T. Smith, Croxton, 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.

FOR SALE—TWO REGISTERED
Percheron yearling stud colts. McCloy, Agt, Birdwood, Va.

BERKSHIRE PIGS FOR SALE—\$5. 10
weeks old. L. B. Johnson, Charlottesville, Va. Route 4.

DOGS AND DOG REMEDIES.

WORM REMEDY—NEARLY ALL DOGS
have worms some time or other. And the worms kill the dogs. Treat your dog regularly with Dr. Cecil French's Vermicide Capsules, which rapidly destroy and expel both tape and round worms without harm to the dog. Box of 6 capsules 25c. Box of 100 capsules (Kennel Size) \$3.00. Mailed on receipt of price, stamps or coin. Dr. Cecil French, Washington, D. C.

COLLIE PUPS FROM PRIZE WIN-
ning imported stock and grown females. R. I. Red eggs from prize heavy laying stock, \$1 for 20, \$5 for 100. Shady Brook Farm, Route 2, Roanoke, Va.

GREAT DANE PUPPIES TWO
months old for sale. Pedigreed stock. Males \$20. Female \$10. A rare opportunity to get the best of dogs at a very low price. S. C. Wolcott, Dixondale, Va.

SCOTCH COLLIE PUPS FOR SALE—
second to none, 3 months old; parents splendid sheep and cattle dogs, imported 1908. David Galloway, Culpeper, Va.

FOR SALE—COLLIE PUPS FROM
registered stock. Wishar Chinker strain; sable and white. Males five dollars. Wm. Sheppard, Front Royal, Va.

FOR SALE—3 FEMALE ENGLISH
Beagle pups; pedigreed stock; just right for hunting next season. One pure-bred female bull-terrier, twelve months old. Dr. C. T. Smith, Croxton, Va.

FOX, DEER, COON AND OPOSSUM
hounds and pups, \$3.50 to \$15 each. For bargains write me. E. F. Wilmouth, Shelbyville, Ky.

SCOTCH COLLIE PUPPIES; ANOTHER
choice litter. Best breeding. Finest markings. Charlie Brown, Route 1, Cartersville, Va.

WANTED—REGISTERED BEAGLE
Dogs. Give full description and price of what you have to offer. W. B. Gates, Rice Depot, Va.

FOR SALE—4 COON, POSSUM AND
Fox Hounds. Best in two states. R. J. Dillard, Kendalia, 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, Wenonda, Va.

VIRGINIA—ABOUT 400 ACRES OF
land at railroad station, 20 miles from Norfolk, Va. Good schools and neighborhood, etc. 250 acres cleared. Grows corn, cotton, timothy hay and truck, 2-3 fenced with stock wire, 10-room dwelling; 4 three to five room houses, barns, stables, etc. Good pastures. Price \$10,000, easy terms. Write owner, Jos. R. Ives, 143 Plume St., Norfolk, Va.

OWNER IN BUSINESS ELSEWHERE
will sell at half value, 196 acre estate, fertile land, splendid buildings, 18 miles from Washington, 40 to Baltimore, at station Penn. R. R. Buildings cost \$12,000. Price only \$6,500.00. National Capital Farm Agency, 512 F. St., N. W., Washington, D. C.

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.

TIMBER AND FARM FOR SALE—
Between Richmond and Lynchburg, Va. James River Valley. 650 acres. All in good timber. Less than 3 miles to station. Must be sold. Box 8, Appomattox, Va.

WANTED TO EXCHANGE CITY LOTS
in Gulfport, Miss., for Shetland ponies, collies, blood hounds, or fancy poultry. J. D. Stodghill, Shelbyville, Ky.

FOR SALE—FARM 186 ACRES, HALF
in cultivation, balance timber. Ten room dwelling, outbuildings and orchard, all fixtures and stock go in. Must be sold on account of other business. \$5,000, terms. J. L. Howard, Manchester, R. F. D. No. 2, Va.

POSITIONS—HELP.

PARTNER WANTED—A HONEST
man with first-class references and \$500 to join me in buying a few horses on speculation. The man wanted is to select and buy the horses and bring them to my farm stable to be cared for till sold. Only a thoroughly competent horseman need answer. Money in the business as advertiser knows from twenty years experience. Write for particulars. Wm. M. Watkins, Saxe, Va.

WANTED—POSITION AS MANAGER
and personal trainer on a high class stock farm with preference for saddle horses. Know the business from breeding the mare to getting the "Blue" or the largest check. Best possible references regarding horsemanship and personal qualifications. Address Mr. Jay Kay, care The Horseman, Chicago.

WANTED—ENERGETIC WORKING
foreman on farm having up-to-date methods and familiar with farm machinery, plain gardening. Wife to care for milk, butter and board hands when necessary. State ages of self and family, wages expected, references, etc. Address P. O. Box 196, Charlottesville, Va.

WANTED: MANAGER FOR CITY MILK
and Ice Cream Plant. Must be competent business man, capable of handling the buying and selling, as well as the inside work. State experience, salary and references in first letter. X, care Southern Planter.

WANTED OPPORTUNITY TO DEVELOP
unprofitable cotton plantation of 1,000 acres into profitable dairy and poultry farm, for salary and interest in plantation. Can prove ability to succeed. Address N. N. M., Southern Planter.

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.


FOR SALE—PURE-BRED RUFUS RED
Belgian hares, \$1 per pair. Jas. H. Whitten, Amherst, Va.

FOR SALE—BABY NO. 1 DE LAVAL
Cream Separator. Good condition. Price very reasonable. Address Evergreen Farms, Rice Depot, Va.

Miscellaneous (contd.).

DO BETTER FARMING! "WHELP-ley's Money Maker for Farmers" will help you. Best account and reference book out. Write J. H. Bonnell, Falls Church, Va.

FARMERS AND OTHERS. IF YOU want any repairs done to your house, plastering, brickwork, paper-hanging or any job in the building line, no odds how small, write me. Englishman, Sth Emporia, Va.

WOODWARD & SON, RICHMOND, VA.

 Lumber, Laths, Shingles, Sash, Blinds, Doors, Frames, Mouldings, Asphalt Roofing. Yards and buildings covering ten acres.

THE IMPORTANCE OF LABELLING.
Mary Washington.

I have been greatly struck of late years with the usefulness of labels and the large amount of trouble you save yourself if you form the habit of labelling your things, as, for instance, your letters, papers, clippings, household articles, etc. My attention was first drawn to this fact by noticing the way in which a very careful and judicious housewife of my acquaintance put away her winter things in the late spring. She provided pieces of strong, unbleached cotton from one to several yards long, according to the size of the article to be wrapped in it. Then she carefully folded the article, sprinkled it well with camphor or something else to keep off moths, pinned it up closely in the piece of cotton, and, lastly, took a well sharpened pencil and wrote the name of the article in large, distinct letters on the outside of the package. She said she did this because when she began to need first one woolen article and then another in the autumn the label would enable her to find immediately what she wanted, instead of her having to look over and open several or perhaps many packages before she came across the right one. The cotton cloth kept off moths, she said, and was useful for cup towels in winter, if she did not care to keep it through another season. This same careful lady kept many small articles in pasteboard boxes, each one neatly labelled, so she could at once find what she was looking for.

It is very desirable for housekeepers to label and date their preserves, jellies and pickles. It shows you how long they will keep, and where you have a large stock on hand you might use the newest instead of the oldest, if they were not labelled and dated. Also, when you are saving extra fine seed of tomatoes, melons or anything else it is very important to label and date it. A careful farmer will not use seed unless this precaution has been taken. As to medicine, whatever is not labelled should be at once thrown away. Of course, the druggist always labels it, but sometimes persons

WANTED—SOMEONE TO STAND A thoroughbred stallion on shares for the season of 1909. I have a good horse in the wrong locality. Percival Hicks, North, Mathews Co., Va.

ITALIAN BEES WANTED. NICE BEL-gian hares for sale. Tillman E. Jeter, Paces, Va.

SEEDS, PLANTS, Etc.

42 EARS OF CROOK'S WHITE GIANT seed corn shelled one bushel; this corn cannot be beaten for size of ear and yield per acre. I will send one pound for 30c, peck 75c., ½ bushel \$1.40. Reference Citizen's Bank, Lexington, Tenn. Address W. C. Crook, Huron, Tenn.

CABBAGE PLANTS—READY, STOCKY Hardy. Shipped in damp moss. Satisfaction guaranteed. Early Jersey

Wakefield, Charleston Wakefield. \$1.40 per 1,000. F. W. Rochelle, Marionville, Va.

FOR SALE—75 BUSHELS OF MAM-moth Yellow Soja Beans, \$1.40 per bushel, \$1.35 in ten bushel lots and over. F. C. B. George H. Newton, Fredericksburg, Va.

FOR SALE—SEED CORN, BOONE County White and Hickory King. Per bushel, \$1.40. Dr. Walter Stuart, Farmville, Va.

RHUBARB ROOTS FOR SALE—strong sets, from four years old stock. Giant Early. \$3 per hundred. Cheap express rates on roots. W. S. Murray, Hollins, Va.

240 BUSHELS TRUCKERS FAVORITE early corn at \$1.50 per bushel. W. H. Wilson, St. Brides, Va.

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.

For Sale
BERKSHIRE GILTS

JERSEY BULL

Forest Home Farm,
Purcellville, Va.

—SELWYN FARM—

PURE BRED BERKSHIRES AND JERSEYS

Headed by the \$1,100.00 Son of Premier Longfellow 68600.
LEE'S PREMIER 3rd, 112763.

THE SHORTEST NOSED AND THE BEST HEADED BOAR IN AMERICA.

We are now booking orders for his pigs of both sexes, which are marked just like him; or will sell you magnificently bred sows safe with pig to him.

Our herd contains sons and daughters of the peerless Longfellow 68600, Berryton Duke 72946 (litter mate to Masterpiece 77000); Premier Longfellow's Rival 101678; Duke of Oakdale 93955; Woodside Premier 80008; Baron Duke 52d 77452; Baron Premier 24th 92810; Baron Premier 55227; Lord Lee 61138; Riley's Premier 71428; Kenilworth Masterpiece 102979 and Kenilworth Longfellow 104156.

Sows bred to Lee's Premier 32d, 112763 and spring pigs of both sexes by Kenilworth Longfellow 104156; Duke of Oakdale 93955; Berryton Duke 72946 and Premier Longfellow's Rival 101678.

Registered Jerseys for Sale at All Times.

Write for descriptive booklet and prices.

EDGAR B. MOORE, Proprietor, Charlotte, N. C.

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.

change it from the original vessel and then it should be labelled anew.

In the case of letters and papers, the labelling habit is of great utility. Old fashioned people, for the most part, kept all their letters, but this is not done by the young people of this generation. They have less sentiment than their predecessors, and also less leisure, as there are so many more interests and pursuits nowadays than in the olden times, but those who still keep up the old-fashioned custom of saving their letters will find it a great help to label these and date them on the outside, making a brief note of the fact when they contain anything of special interest. When they wish to refer to some matter in the past, a labelled letter will save them much search and trouble, and it will do the same for those who come after them and have to examine their letters and papers. Whatever letter is of sufficient interest or importance to be kept at all deserves a label, giving date, name of the writer, and a brief notice of any remarkable fact or event that may be recorded in the letter.

Those who write for publications will find the labelling habit especially serviceable to them. A writer is apt to make notes or save clippings on subjects which he (or she) is studying up for future articles. It greatly facilitates matters to put these notes or clippings in a large, separate envelope, labelled so the writer can find them at once, perhaps amongst a great mass of other clippings, unfinished manuscript, etc. Each old or returned or unfinished manuscript should be put to itself and labelled so that the writer can find it without any difficulty.

Many persons also who do not write for publications are very fond of saving clippings for scrap books or for future reference. I strongly recommend to such persons to carefully assort their clippings and put each class into a large envelope labelled to suit

THE SUNNY HOME HERD

Is one of the well-bred herds of

ANGUS CATTLE

And the people know it. We sell cattle all over the South and have sold more Angus bulls in our own county than in any other section. This is as good proof as you need that the cattle are of the right quality and that our methods appeal to our neighbors.

We have only one bull of weaning age for sale. He is a grandson of Gay Blackbird on sire's side and of the great Erica bull Ermoor on dam's side. He is not a herd header, but is a good blocky calf. If you need a herd header we have a little fellow that will "fill the bill" nothing better in America.

Station Draper.

A. L. FRENCH.

Rockingham Co., N. C.

R. F. D., Byrdville, Va.

JERSEY CATTLE.

My herd is headed by "Rinora's Rioter of St. Lambert's" 69478, of Bowmont Farms. A son of old "Rioter of St. Lambert's" and out of "Rinora" that gave with first calf 17¼ pounds of butter in 7 days. His granddams both gave over 23½ pounds of butter, 319 pounds of milk in 7 days.

A few of his sons and daughters for sale—cows and heifers due to calve in the spring. Address

Evergreen Farms,

W. B. GATES, Prop.,

Rice Depot, Va.

BERKSHIRES and JERSEYS.

A few nice cows and a Registered Bull, of excellent breeding for sale. Berkshire Pigs, 3 months old, and a few sows bred, all in nice condition. Barred Rock and S. C. B. Leghorn Eggs for sale. I will please you.

RIVER VIEW FARM,

Rice Depot, 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," 103555, the greatest living boar, heads our herd. If you are interested write.

THE BLUE RIDGE BERKSHIRE FARMS, ASHEVILLE, N. C.

TELL THE ADVERTISER WHERE YOU SAW HIS ADVERTISEMENT.



**Get
More Milk—
Fat More Beef**

Milk in the cow and fat on the steer are both the result of the digestion of food over and above that required to maintain life and repair waste. You see, then, that the whole profit in feeding for either milk or meat is vitally connected with one bodily function—digestion.

Weaken the stomach and other digestive organs, and appetite goes off, or the manure heap is made the richer by undigested nutriment. Strengthen these vital parts, and appetite is sharpened, your milk pail fuller and your steer heavier. Therefore we say, "Aim at all times to strengthen animal digestion."

DR HESS STOCK FOOD A TONIC

makes stomach, intestines, their nerves and every other organ of the animal act up to full capacity, a condition which we have already seen means profitable production. Dr. Hess Stock Food is not a ration, or to be fed alone; but given twice a day in the ration, it brings about the greatest possible assimilation, or healthful use, of large quantities of food.

Increasing the stockman's profit by increasing digestion is known as "The Dr. Hess Idea." Dr. Hess (M.D., D.V.S.) believed it possible to put feeding on a more paying basis by making perfect digestion, and for that purpose he formulated his Stock Food. We have seen how it benefits the cow and the steer—it is just as valuable for the horse, sheep or hog.

One very important thing about Dr. Hess Stock Food is the way in which it makes appetite for rough fodder. Cattle receiving it eat much hay and stover, which, of course, is a saving of grain. It also (by increasing digestion) saves waste of food in the manure.

The ingredients in Dr. Hess Stock Food are indorsed by such men as Professors Winslow, Quitman and Finlay Dun, and it is sold everywhere on a written guarantee. The dose of Dr. Hess Stock Food is small and fed but twice a day.

100 lbs. \$5.00; 25 lb. pail \$1.60. Except in Canada and extreme West and South. **DR. HESS & CLARK, Ashland, Ohio.**

Also Manufacturers of Dr. Hess Poultry Pan-a-ce-a and Instant Louse Killer.

FREE from the 1st to the 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book any time by asking. Send 2c stamp and mention this paper.

DR. HESS POULTRY PAN-A-CE-A It's not a difficult thing to have plenty of eggs almost the year round if you make Dr. Hess Poultry Pan-a-ce-a a part of your daily feed. A very little of this wonderful tonic (formulated by Dr. Hess, M.D., D.V.S.) corrects tendency toward indigestion in hens, makes them eat with appetite and evident that the more food used the more eggs would be laid.

Dr. Hess Poultry Pan-a-ce-a, besides making eggs, also helps toward the fattening of a market bird, shortens moulting time and is very good indeed for growing chicks. It has the endorsement of Poultry Associations in both United States and Canada and cures gapes, cholera, roup, etc. It is sold on a written guarantee: one penny's worth being enough for 30 hens one day.

1 1/2 lbs. 25c; mail or express 40c. 5 lbs. 60c; 12 lbs. \$1.25; 25 lb. pail 2.50. Except in Canada and extreme West and South. Send 2c for Dr. Hess 43-page Poultry Book, free.

INSTANT LOUSE KILLER KILLS LICE

the subject. In this way they can quickly lay their hand on any clipping they need for a scrap book or to show a friend, or to freshen their own recollection of any person or event. For instance, I know a person who keeps a large envelope (like those in which catalogues are sent) labelled "Clippings about eminent Virginians, and whenever she meets with anything under this heading in the papers, she cuts it out and adds it to the collection. She has another envelope marked, "Southern Educators," and another marked, "Confederate Clippings," in which she puts notices and sketches of distinguished Confederate generals, accounts of different engagements during the War, sketches of social life then, and, in short, everything bearing on the Confederacy, all to be transferred to a scrap book when the collection is completed. Then there is another large envelop labelled "Poetry," and

SPLENDID BERKSHIRES.

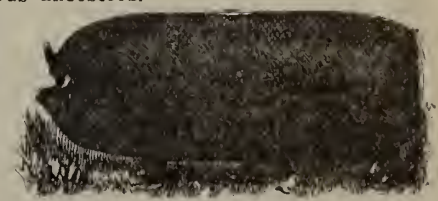
Virginia has her Berkshires as well as Presidents. They were not hogs, but ours are all hogs, and with as illustrious ancestors.

Our Herd Boars are all prize-winners as are all our original sows but one which was never shown. These sows are all in pig to our great young boars, Gem's Kennett, Baron Premier I, and Masonic Rival.

Have just added to our herd Lee's Artful Belle 51st, by Lord Premier, out of Lee's Artful Bell 5th; a daughter of hers, by Premier Longfellow, and a daughter of young Baron Duke, out of Lady Combination 5th.

These sows are safe in pig to Baron Duke, 50th's Masterpiece. No breeding could be better and the individuals do credit to their breeding. Seven sows to farrow in March and April. Orders booked for pigs now.

MOORE'S BROOK SANITARIUM COMPANY, - - CHARLOTTESVILLE, VA.



SHORTHORN AND POLLED DURHAM CATTLE.

Cows with Calves by Side. Cows in Calf. Heifers, Bulls and Bull Calves. Pure Scotch and Scotch Topped and Heavy Milking Strains. These cattle **MUST BE SOLD NOW.** Many of them are by the most noted imported bulls ever brought to this country. If you will not take them at our price, we will sell them at yours.

LESLIE D. KLINE, Vaucuse.



Ft. Lewis Stock Farm

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.



another for humorous sketches, and by means of their respective labels whatever is wanted at the moment can always be found without difficulty.

As a familiar illustration of the utility of labelling, I may mention the simple device of our writing our names and address on the upper left-hand corner of our letters and packages we send off. This enables them to be returned to us if not called for instead of being sent to the dead-letter office, and if this precaution was universally practiced the latter institution would probably be abolished.

CO-OPERATION OF MANUFACTURERS WITH DIRECT FACTORY BUYING.

The advantages of buying direct from the manufacturer are now generally recognized. Paying one profit is better for the buyer than paying for two or three. If, in addition to buying direct, there be co-operation of several manufacturers to cut down selling cost, the advantages to buyers are all the greater. There is one conspicuous example of this, the United Factories Co., of Cleveland, Ohio.

The 1909 catalogue is now out. If you want to see the advantages of co-operation and direct factory selling you ought to send for a copy. Most of the prices displayed in the book are eye-openers. There's a wide range of articles, things used on every farm, things it pays to make the saving on. Here is the list: Paints, stoves, vehicles, steel wheels, sewing machines, metal and composition roofings, incubators, harness, fence, manure spreaders, gasoline engines, fireless cookers, buggy tops and trimmings, agricultural implements.

Among these there are specials that will have particular interest to our readers at this time, such as incubators, metal and prepared roofings and paint. But the book will interest you all the way through. It is a money saver. It costs nothing. We may get a copy and keep it by you. There are special catalogues on some of the articles named, but write for the big general one at least and see the advantages of this factory co-operation. Just address United Factories Co., Cleveland, Ohio, and ask for catalogue No. 6.

Prince Edward Co., Va., Jan. 23, '09.

I must either have the Southern Planter or quit farming.

T. C. MORTON.

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,

Fassfern Stock Farm,

LEXINGTON, VA.

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 and READY-FOR-SERVICE BOARS

My crop of fall pigs, from 15 large sows, have all been sold and I am now booking orders for choice pigs for April delivery. My sows are farrowing big litters of large vigorous pigs and I can furnish you some extra fine ones this spring. My sows are of the best blood of the breed—being daughters and granddaughters of Premier Longfellow, Baron Duke 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 large, vigorous and quick-growing kind. Let me book you for a pair or trio of choice ones for April delivery, or a choice young boar for immediate shipment. My prices are reasonable. Address



D. E. EARHART, Bristow, Va.

Berkshires For Sale.



One of the best herds in the East.

Bred Sows, Gilts, Young Boars and pigs for Sale.

All stock shipped as represented or money refunded.

W. R. FENSOM,
Richmond, Va.

When corresponding with our advertisers always mention Southern Planter.

MORVEN PARK ESTATE.

The Property of WESTMORELAND DAVIS, Esq.

Large Yorkshire Swine.

These pigs are hardy and prolific. The two boars that took the first prize in their classes at the Virginia State Fair had been exposed without cover or shed for a year in the open. They had, as have all our pigs, well developed carcasses, covered with heavy growth of hair that insures against scurf or skin troubles in hot climate. These pigs mature early, are good mothers, and are very prolific. They are the bacon pig of England and of the West.

WE HAVE THE FINEST STRAIN OF IMPORTED BLOOD FOR SALE.

Registered Guernsey Cattle.

Dairymen shipping to the city markets will find a Guernsey bull most valuable to cross on their herds, thus increasing the content of butter fat in their milk or cream. Especially is this cross desirable when shipping to cities where dealers pay upon the basis of butter fat.

At the Pan-American Exposition, the only time the Guernsey met other breeds in competition, the Guernsey led all breeds for the most economical production of high-class butter.

We Have Brilliantly Bred Bulls For Sale.

Dorset Horn Sheep.

We have the largest flock of Imported Dorsets in America. They are of one type and both thrifty and prolific.

WE ARE BOOKING ORDERS FOR EARLY DELIVERY OF LAMBS.

For further particulars, address,

LIVE STOCK DEPARTMENT, MORVEN PARK ESTATE,

LEESBURG, LOUDOUN CO., VA.

Hygeia Herd Pure-Bred Holstein-Friesians.

The herd offers a few more well bred bulls and bull calves from large milk and butter producing dams and sired by

Pontiac Calypso's Son, No. 39469.

The dam of this richly bred young sire, Pontiac Calypso, No. 61,100, has an official record of 28.43 pounds of butter in 7 days, with a milk record of 560.3 pounds, or an average of nearly 10 gallons per day for 7 days. His sire's dam, Beryl Wayne, No. 32,496, produced 27.87 pounds of butter in 7 days.

The breed not only holds the milk, but also the butter records of the world.

It pays to get the best blood to head your herd, therefore write for pedigrees and prices.

No females offered for sale at the present time, as the herd will be numerically increased as rapidly as possible.

HYGEIA HERD.

W. Fitzhugh Carter M. D., Owner,

Crozet Albemarle County, Virginia.

Address: W. F. Carter, Jr., Agent.

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.

GROUND PEAS—GRAZING CROPS FOR STOCK—JAPAN CLOVER—SOY BEANS—BURLEY TOBACCO FERTILIZER FOR CORN.

Please give me information on the following:

1. What is the feeding value of ground peas for horses and cows compared with corn? Are they hard on land? How much guano per acre?

2. What is best to sow in orchard this spring for calves, sheep and hogs? Had cotton on land last year and made over a bale per acre. The land is dark sandy loam; would rather get it in permanent pasture, but weeds generally choke out grass sown in spring.

3. What do you think of tall meadow oat grass?

4. Would you advise sewing Japan clover on poor land this spring to be planted in corn next year? Will it improve the land and inoculate it for other clovers?

5. Are soy beans as great land improvers as peas, and do they do well sown with peas?

6. Will it pay to use fertilizer for corn after clover and peas on land which will make from thirty-five to forty-five bushels per acre without anything? If so, how much, and what kind?

7. I have some weedy land which will make twenty to thirty bushels per acre. Will it pay to use fertilizer, and what kind? This land was in corn in 1907.

8. I want to plant some Burley tobacco on dark sandy loam land that will make about forty bushels of corn per acre. Please give me all the advice you can. I understand growing bright flue tobacco, but know nothing about the Burley.

9. What kind of sheep would you advise raising here?

10. Can flax be grown successfully here.

MRS. E. M. STEWART.
Vance Co., N. C.

1. We do not understand what you mean by "ground peas." If you mean

THE HOLLINS HERD

OF

HIGH-CLASS HOLSTEIN-FRIESIANS

A WORKING HERD WORKING EVERY DAY IN THE YEAR.

The entire herd of 22 head (14 pure-breds and 8 grades) of which 14 are heifers with 1st or second calves, produced from October 1st, 1907, to October 1st, 1908.

195,941 LBS. OF MILK.

8,906 LBS. PER HEAD.

Ten pure-breds, including two heifers freshening late in the fall with 1st calves and in milk only 8½ months, produced from October 1st, 1907 to October 1st, 1908.

104,255 LBS. OF MILK.

10,425 LBS. PER HEAD.

Registered Bull Calves for sale.

JOS. A. TURNER, General Manager,

HOLLINS, VA.

DAIRY COWS.



Do you own cows that will give you from twenty-five to thirty quarts of milk daily when fresh and 5,000 quarts in a year? These are the kind we keep and offer for sale, and they are the only kind you can afford to feed. Do not keep "cow boarders" any longer, but write us to-day stating what class of dairy cows you want.

We sell Registered or high grade Holstein, Guernseys, Jerseys, and Ayrshires. Address,

SYRACUSE BREEDERS ASSOCIATION

Syracuse, N. Y.

One of our grade cows that gave 11,000 pounds of milk in a year.



The discriminating farmer keeps a supply of SLOAN'S LINIMENT

For spavin, curb, splint, sweeny, capped hock, founder, strained tendons, wind puffs and all lameness in horses - for thrush, foot rot and garget on cattle and sheep - for hog distemper, hog cholera, thumps and scours in hogs - for diarrhoea, canker and roup in poultry -

AT ALL DEALERS - - - PRICE 25¢, 50¢ & \$1.00

Send for free book on Horses, Cattle, Hogs and Poultry - - Address Dr Earl S. Sloan, Boston, Mass.

Incorporated 1907.

"STANDARD OF EXCELLENCE."

Capital Stock, \$100,000.

THE VIRGINIA STOCK FARM CO.**Incorporated.****Bellevue, Bedford County, Virginia.****J. ELLIOTT HALL, General Manager.**

Copyright, 1908.

PERCHERON STALLION

By The Virginia Stock Farm Co., Inc.

Standard Type of The Horse of Gold.

Drawing by Geo. Ford Morris.

If you are interested in pure-bred stock—Percheron, Hackney or Standard-Bred Horses, Short Horn Cattle, Poland-China Hogs, Dorset Horn Sheep—then you must certainly want a copy of our handsome, illustrated catalogue entitled "Inaugural Announcement." This book cost us many hundred dollars to publish and we want you to have a copy absolutely free. There is no other breeders' catalogue just like it.

Write us a post card stating (1) Your Name. (2) Your Address, Street and Number, P. O. Box or Rural Route and Number. (3) Your Post Office. (4) The County in which your Post Office is located. (5) Your State. (6) Please say you saw this advertisement in The Southern Planter. Please write plainly! Address the company as above, or write direct to the General Manager, as below.

J. ELLIOTT HALL, Bellevue, Virginia.**Write To-day. Do It Now.**

FOR SALE.—ROADSTER. CH. M. 15.2 HANDS; 1100 POUNDS. 10 YEARS; SOUND AND CITY BROKE. LADY CAN DRIVE HER ANYWHERE. A BLUE RIBBON WINNER. BROKE SINGLE AND DOUBLE AND TO RIDE. CAN ROAD TEN MILES AN HOUR. BRING YOUR WATCH, WE CAN SHOW YOU! A BARGAIN. PRICE \$350.



WOODSIDE BERKSHIRES

EVERYTHING SHIPPED ON APPROVAL.

IT WILL PAY YOU TO READ THIS CAREFULLY.

We are now offering a grand lot of pigs for April and May delivery at 25 per cent. less than our usual price. These pigs are sired by our 3 boars,

Charmer's Premier 94553, 2 years old, weight 720 lbs., Master Lee 79379, weighing over 700 lbs. 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.

peanuts or goobers, we have never known these to be fed to horses or cows. The peanut meal, which is made from the nuts after the oil has been squeezed out, can be fed with advantage to cows and, no doubt, in reasonable quantity, to horses as well. The peanut crop is no harder on land than other crops. In our next issue we shall give advice as to the growing of this crop.

2. If you want your orchard to be a success, you should not grow crops in it except to feed the trees. They cannot be profitable if you exhaust the soil by taking the plant food needed for their growth to make other crops. Whilst the orchard is young you might grow corn in the middles between the rows of trees, keeping the corn rows well away from the trees. After two or three years, only crops to feed the trees should be grown—cowpeas in the summer and crimson clover in the winter, and these should be plowed down after being grazed by hogs, sheep or young cattle. These crops should be fed with acid phosphate and potash, say 250 pounds of acid phosphate and 100 pounds of muriate of potash per acre, to ensure a good growth to turn down. After the trees have made a good growth the orchard can be put down into grass for a year or two, the grass to be grazed or allowed to die down as a mulch. The grass should be sown always in August or September.

3. Tall meadow oat grass is a good hay grass and makes a heavy crop on good land. It should be sown in mixture with orchard grass and herds grass.

4. Japan clover is not worth sowing to improve a piece of poor land for corn. The only use of Japan clover, except in the far Southern States, is to sow it amongst broomsedge, where it will make a growth fit to pasture

WE HAVE AND
OFFER TO LEASE

Two Magnificent Imported Hackney Stallions

FOR THE SEASON OF 1909.

One an Irish bred horse, liver-colored chestnut with white markings, 16:1 hands and as fine a type as lives.

The other bred in Yorkshire, England, is a handsome bay, 15:3 hands and with extreme action and step.

Both are splendid breeders, kind and without fault or vice and produce colts of substance, finish, style and action from average mares.

Give estimate of number of mares you can breed and at what price and terms. We will send full particulars upon receipt of same.

Only absolutely responsible parties considered. Address immediately,

INDIAN CITY FARMS, N. I., Pontiac, Illinois.

DICK WILKES, JR.

The Perfect Horse and Blue Ribbon Winner at the State Fair.

By Dick Wilkes 211 by Centinel Wilkes he by George Wilkes, by Hambletonian, Dam Morgan Black Hawk, Pet, Grand Dam sired by Ethan Allen, Jr., by Hill's Black Hawk Fan. Season, \$12; Insurance, \$15.

PILOSO 102, the only imported Catalonian Spanish Jack in this section. Season, \$12; Insurance, \$15.

This Stock Will Bear Inspection and the Colts Speak for Themselves. Owned by STRAIN & SON, Mechanicsville Farm, Richmond, Va., R. F. D. No. 1. RAISE GOOD HORSES AND MULES AND MAKE MONEY.

FOR SALE:

BAY THOROUGHbred STALLION

AUREUS Foaled 1897, by Eolus, dam Sample by Imp. Rotherhill, 2d dam Satilla by Imp. Buckden. He is half brother to the dam of the Stake Winners, Pater (sold for \$4,500) and Billie Hibbs (sold for \$3,000); 16:1 hands, weighs 1,275 lbs., is sound, a sure foal getter, has splendid disposition and is a good horse under saddle.

R. J. Hancock & Son,

"ELLERSLIE,"

Charlottesville, Va.



ARTIFICIAL
MARE IMPREGNATORS

Impregnators for getting in foal from 1 to 6 mares from one service of a stallion or jack, \$3.50 to \$6.00. The popular Safety Impregnating Outfit, especially adapted for impregnating so-called barren and irregular breeding mares, \$7.50. Breeders Bags, Serving Hobbles, Stallion Bridles, Body Rollers, Shields, Supports, Emasculators, Ecreseurs, Service Books, etc. First quality goods only. All prepaid and guaranteed. Write for FREE Stallion Goods Catalogue.

CRITTENDEN & CO., DEPT. 54 CLEVELAND, OHIO.

TELL THE ADVERTISER WHERE YOU SAW HIS ADVERTISEMENT.

1909 Allandale Farm 1909

ROYAL SWELL, 34892, Bay Horse, 15.2½ hands high, by Bow Bells, 2:19¼, dam Rachel, 2:08¼, by Baron Wilkes, 2:18.

A Trotting Stallion that lives up to his breeding in conformation, style and gait—a show horse all over. His tabulated pedigree, which follows, shows him to be one of the best bred trotting stallions in the world:

ROYAL SWELL, 34892.
MAHOGANY BAY
 with black points; near hind heel white.
FOALED FEB'Y 5, 1901.
 Bred by Marcus Daly, Bitter Root Farm, Hamilton, Mont.

A perfect individual with great beauty, perfect disposition, extreme speed, a pure gaited trotter and as richly and fashionably bred as any horse ever foaled.

Bow Bells, 13073.....
 Record 2:19¼.
 Sire of
 Beausant 2:06½
 Matin Bells 2:06½
 Billy Andrews 2:06½
 Bellewood A 2:07½
 Prince Selma 2:10¼
 Bel Esprit 2:12½
 Janie T. (2 yrs.)... 2:14
 (Champion 2-yr. filly; Futurity winner.)
 Ringing Bells 2:13½
 Wilkes Belle 2:14¼
 including
 Boreal, 3 yrs..... 2:15¼
 Sire of
 Boralma, 5 yrs. ... 2:07
 (Futurity winner 1899; Pennsylvania winner in 1900.)
 Pan Michael 2:03
 Own brother to
 Chimes 2:30¼
 Sire of
 The Abbot 2:03¼
 (World's Champion in 1900.)
 Electric Bell, sire of
 Captor 2:09¼
 St. Bel, 2:24½, sire of
 Lynne Bel 2:10½
Rachel
 Record 4 yrs., 2:08¼.
 Winner of 9 races. Twice 2d; once 3d; twice 4th, and never unplaced.
 Great Spirit 2:11¼
 Dam of
 The Envoy (Peace Commissioner) 2:25¼
 Sire of
 Bedelia B. 2:27¼
 Town Founder 2:18
 Sire of
 Prodigal Queen 2:30

Electioneer, 125
 Sire of
 Arion 2:07¾
 Sunol 2:08¼
 Palo Alto 2:08¾
 And 163 others in 2:30
 Sires of the dams of
 Klatawah 2:05½
 Dolly Dillon 2:06¾
 Lisonjero 2:08¼
 Wild Bell 2:08¼
 Cavaliero 2:09½
 Crafty 2:09¾
Beautiful Bells
 Record 2:29½.
 Champion trotting brood mare,
 Dam of
 Belleflower 2:12¾
 Belsire 2:18
 Bell Boy, 3 yrs. ... 2:19¼
 Bow Bells 2:19¼
 Hinda Rose, 3 yrs. ... 2:19½
 Palo Alto Belle 2:22½
 Adbell, 1 yr. 2:23
 Monbells, 4 yrs. ... 2:23½
 St. Bel, 4 yrs. 2:24½
 Bell Bird, 1 yr. ... 2:26¼
 Adbell 2:29½
Baron Wilkes, 4758
 Record 2:18. Sire of
 Bumps 2:03¼
 Rubinstein 2:05
 Rachel 2:08¼
 Cakland Baron 2:09¼
 Seven others in 2:10
 And the dams of
 Lady Gail Hamilton. 2:06¼
 Rollins 2:08
 India Silk 2:10¾
 Circle 2:11¼
 Great Spirit 2:11¾
Willie Wilkes, 2:28.....
 Dam of
 Rachel, 4 yrs. 2:08¼
 Great Heart 2:21½
 Bowery Boy 2:15
 Bowery Bell 2:18¼
 Deluge 2:19¼
 Aspirator 2:24½
 Dam of
 Great Heart, 2:21½, sire of
 Auto 2:04¼
 Wilkes Heart 2:06¼
 Octoo 2:07½
 Thelma 2:09¼
 Namu 2:09¼
 Xava 2:10¼
 And 23 others.
 Woodsprite, sire of
 Hal Frey 2:09¼
 Miss Liler 2:18¼
 And 4 others.
 Crystal, dam of
 Cut Glass 2:10¼
 King Crystal 2:14¼
 Spanish Boy 2:16¾
 Crystalline, 2 yrs. ... 2:19¼
 (1 in 2:30) 2:24½
 Spun Glass 2:27½
 Crystal's Last 2:27½
 Crystalloid 2:28½

Hambletonian 10
 "The great fountain head of trotting speed." Sire of Dexter 2:17¼, (World's Champion).

Green Mountain Maid,
 "The great mother of trotters."
 Dam of Elaine 2:20; Prospero 2:20; Elista 2:20¾; Dame Trot 2:22; Lancelot 2:23, and 4 other 2:30 trotters.

The Moore, 870; 2:37
 Sire of
 Sultan 2:24
 And others.

Minnehaha
 Dam of
 Baron Rose 2:20¼
 Alcazar 2:20½
 Mascot 2:25¾
 Pawnee 2:26½
 San Gabriel 2:29¼
 Beautiful Bells 2:29½

George Wilkes, 519; 2:22.
 Cham. Stallion, 1868-71.
 Sire of 83 2:30 performers, and dams of 183 2:30 performers.

Belle Patchen, 2:30¾,
 Dam of
 Baron Wilkes 2:18

George Wilkes, 519; 2:22,
 Sire of
 Harry Wilkes 2:13¼
 And 82 others in 2:30 list.
 Sire of dams 183 in 2:30.
 Sire of 102 2:30 sires.
 Sire of dams 34 in 2:15.
 Sire of dams 12 in 2:10.
 Sire of 70 2:15 sires.
 Sire of 40 2:10 sires.
 Sire of 5 2:05 sires.

Salley Southworth,
 Dam of
 Chatterton (sire of 6 2:30 trotters) ... 2:18
Willie Wilkes 2:28
 Dam of
 Rachel, 4 yrs. 2:08¼
 Great Heart (a 2:10 sire) 2:12½
Bowery Boy 2:1
 Bowery Belle 2:18¼
 Deluge 2:19¾
 Aspirator 2:24
 Woodsprite, sire of
 6 in 2:30
 Crystal, dam of 7 in 2:30

ROYAL SWELL'S get have fine size, are of show horse type and full of trot. He has some grand foals in the East that will soon bring him into prominence as a sire, and his daughters should make as good brood mares as money will buy.

FEE—\$25 the season, with usual return privilege in case of failure. Mares from a distance can be provided for on exceedingly liberal terms for keep. Address,

ALLANDALE FARM, Fredericksburg, Va.

with cows and sheep and will reseed itself each year and slowly improve the land and help to kill out the broomsedge. To improve the land for corn next year, sow cowpeas, giving them 250 or 300 pounds of acid phosphate per acre and plow these down in the early fall and then sow crimson clover (twelve pounds to the acre) and a bushel of wheat, oats and rye, mixed, to be plowed down in the spring before planting the corn.

5. In these replies you will find an answer to another enquirer as to the relative value as improvers of the land of cowpeas and soy beans. Some grow soy beans with cowpeas, but we prefer to sow them alone. Sown with cowpeas, much of the value of the soy beans is lost, as they do not mature as quickly as the cowpeas.

6.-7. It rarely pays to use commercial fertilizer for corn. It will increase the yield of the corn, but the increase will not be grown with profit. Acid phosphate is the only commercial fertilizer we would use on a corn crop, say 250 or 300 pounds to the acre. This costs little and the increased yield may pay for its use.

8. In the article in this issue on "Work for the Month," you will find our advice on growing Burley tobacco.

9. We would begin with native ewes, Merino grades, and breed them to a Shropshire or Dorset buck.

10. Yes; no doubt, on land rich enough to produce it. It requires land as good as corn requires.—Ed.

MOLASSES FOR CATTLE FEEDING.

I am anxious to feed some molasses to my beef cattle, I have had no experience in feeding it. I wish you or one of your correspondents would write in the February number how to feed it. Whether best fed with ground food or mixed with water and sprinkled upon hay? Does molasses affect the appetite? Will cattle eat as much grain while fed it? Will it stick to roof of mouths if fed with meal? Give all information possible, and oblige,

E. W. TWYMAN, M. D.

Madison Co., Va.

We are glad to see interest being taken in the use of molasses for feeding cattle. We used it many years ago with satisfaction. The great hindrance to its use in this State is the cost. The limited use of it makes it necessary to ship in barrels, and this increases the cost materially. Further South it is shipped in tank cars and then it can be delivered at a cost which brings it in at a reasonable price. It is largely used in Louisiana and Texas. The following gives the results reached in its use at the Texas Experiment Station:

Judging from the composition and digestibility tables, cane molasses would seem to have about seven-tenths the feeding value of corn. Texas Bulletin No. 97 says: "At 10 cents a gallon, the feeding of a medi-



FEED Your CALVES

Blatchford's Calf Meal

The perfect substitute for milk. Composed of nine high-grade ingredients containing 25% protein and 5% fat. The most healthy calves are raised with its aid. **100 pounds makes 100 gallons Milk Substitute for \$3.50.**

Blatchford's Calf Meal is purely a food free from all drugs or stimulants and will not ensue "scouring."

Complete price-list and descriptive booklet FREE. WRITE NOW OR ORDER TO-DAY.

S. T. BEVERIDGE & CO.,
1217 EAST CARY STREET, - - - - - RICHMOND, VA

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, Vaucluse, Va.

DUNNLORA FARM.

Reg. Poland-China

Swine of the most up-to-date strains. Our motto: "The best none too good." Service boars and choice pigs of either sex for sale. Guarantee stock as represented.

N. P. PEEBLES & BRO., Carson, Va.



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.

It. J. HANCOCK & SON. "Ellersalle." Charlottesville, Va.

A Few BERKSHIRES FOR SALE.

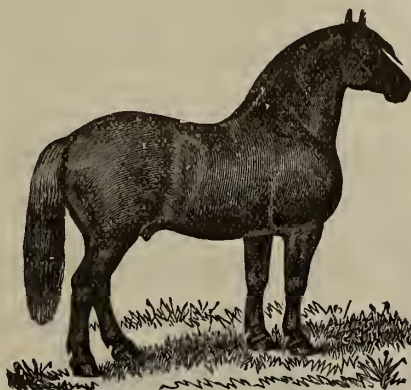
T. O. SANDY, BURKEVILLE, VA.

Percheron Horses.

O. E. JORDAN

Successor to W. J. Jordan & Son, Established 1876.

Now the Oldest Breeders of Percherons
 in the South



WE CAN furnish young registered stock of the best Percheron Blood in America, every one of them from Winners. What is more important, our horses are all broken to work, consequently are healthy, strong and ready to do their share of the farm work. Don't make the mistake of buying pampered, over-fed, fat horses, subject to acclimating fever, soft, not fitted for work, and likely non-breeders.

Can Furnish Grade Mares and Geldings, in Fact, any kind of Breeding or Work Stock.

Prices Reasonable and Terms for Breeding Stock Made to Suit Purchaser.

Write us for particulars and especially for pamphlet showing value of Percheron Mares.

O. E. Jordan - - Dublin, Va.

um ration of molasses will prove profitable added to a meal and hulls ration, and at that price it can profitably replace part of a ration of corn worth 70 cents a bushel. We consider 10-cent molasses to be about on a par with 60-cent corn for feeding with a mixed ration."

The foregoing conclusion was reached by the writer after three seasons' experimental feeding of molasses.

The record of two lots in the 1907 test are of general interest. These two lots were fed the same amount of cotton seed meal, both received hulls for roughage, but for the second lot 5,078 pounds of corn was substituted by 378 gallons of molasses. Lot 1, five steers, averaged 1,224 pounds at the start. Lot 2, five steers, averaged 1,232 pounds.

Rations and Gains.
Lot No. 1

Feed eaten	Total gain	Average daily gain per steer
4693.5 lbs. C S hulls		
1105.5 lbs. C S meal 770		2.10
7981 lbs. Indian corn		
4½ gals. molasses		

Lot No. 2.

6550 lbs. C S hulls		
1140 lbs. C S meal .727		1.91
2903 lbs. Indian corn		
378 gals. molasses		

In this instance it had been intended to entirely substitute molasses for corn. It was found that while some animals seemed to be able to make good use of one and a half gallons of molasses daily, others cannot take such amounts, and for feeding loose in yard one gallon a head daily is the maximum for satisfactory returns.

Dissolve the molasses in warm water and mix with the feed.—Ed.

CORN AND TOBACCO GROWING.

1. I want to plant a piece of land in corn this year that has been turned out for several years, has pretty good growth of clover (dead) to turn under. What fertilizer will be best to use? It is a kind of gray loam soil with red clay subsoil. Land should have been fallowed in fall, but I have just gotten it this year.

2. I want to plant tobacco on land, some of which has not been cultivated in four years; had wheat first year and herds grass (cut) for last three years. What kind of fertilizer will be best and how much per acre? No manure to put on. W. F. YOUNG.

Amelia Co., Va.

1. Plow the land at once a little deeper than it was plowed before and put on after plowing one ton of lime per acre and harrow in lightly and let lay for a week or ten days, and then commence to work the land in preparation for planting. Use the disc or cutaway harrow in preparing the land and work every week or ten days, running in a different direction each time of working so as to thoroughly break and mix the soil and admit the air and sun. If it is possible to subsoil the

LOUDOUN BLUEGRASS STOCK FARMS

FARMS THAT PAY.

77. Three hundred 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 county, and a bargain. Price \$60 an acre, worth \$100, on easy terms.

78. Four hundred and eighty-five and a half acres, ½ mile from railroad and a large, thriving town, in Loudoun county, in a high state of cultivation; 50 acres in timber, rest mostly in blue grass; will feed and graze ready for market 100 steers. New house of 10 large rooms, with modern improvements; cost \$5,000; tenant houses and large barns; can be operated as a dairy or stock farm. Owner has been offered \$225 per acre for one field for building purposes on macadam road. Price, \$34,000 on easy terms. A beautiful place.

93. Six hundred and seventy-five acres, in Loudoun county; good house, barn and outbuildings; in a high state of cultivation, part in timber. A good investment. Price \$27,000. \$25,000 has been offered for this place.

80. One hundred and seventy-one and a half acres, 3½ miles from railroad, in Loudoun county, in high state of cultivation. Good house, large new barn; ½ 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.

Two hundred and sixty-four acres, 4 miles from Sterling, 6 miles from Herndon, in Loudoun County. Thirty acres in timber; artesian well; 3 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 \$7,000, \$2,500 down, balance to suit purchaser.

Two hundred and seventy-seven acres in good state of cultivation, just rolling enough; in a good neighborhood; 5 miles from Sterling, 6 miles from Herndon, in Loudoun county. Seventy 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 over 25 years. On account of old age the owner is offering his farm for much less than its true value; is well fenced, 2 houses in first-class condition—one 10-room house, the other six rooms; large barn and all necessary outbuildings. Price \$8,500; one-third down, balance to suit.

71. Three hundred and eighty-seven acres, 5 miles from electric line, in Fairfax county, in a high state of cultivation, on pike, one of the best farms in the county, good neighborhood, survey for electric line near house, 10-room house in good condition, beautiful lawn, large barn in good shape and outbuildings, fine apple and peach orchard. Has been a first class stock farm for a number of years. Price \$21,000, on easy terms.

Write for new list; farms in Northern Virginia. Loudoun and Fairfax county stock farms a specialty.

Write or telegraph me when to meet you.

A. H. Buell,

Real Estate Broker,
Herndon, Va.

Farms in Northern Virginia.

Keep Your Savings Safe.

Money deposited with the Planters National Bank, is not only absolutely safe, but is earning you a liberal rate of interest, and is protected by the LARGEST SURPLUS AND PROFITS OF ANY NATIONAL BANK SOUTH OF WASHINGTON, D. C.

We invite your account. Whether large or small, it will receive the same courteous and liberal treatment that is accorded the thousands of our well-satisfied depositors.

3 Per Cent. interest paid on savings accounts from date of deposit. Write to-day for booklet, "How to Bank by Mail."

Planters National Bank,

Richmond, Va.

Capital, - - - - - \$ 300,000.00
Surplus and Profits, - - - - - \$ 1,140,000.00

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.)

—LYNNWOOD STOCK FARM—

PERCHERON HORSES

Now is the time to buy. Winter is practically over, and you have just time before the season opens to come here to my farm, and take home a stallion that will make money for you. I offer you your choice of

Thirteen Splendid Stallions

-ranging from yearlings to seven years old, all pure-bred and registered, of course; not an indifferent one in the lot. They are bred right, well-developed, good bone, and, in every respect, horses that I will recommend. Come and see these horses, and do not let a peddler put a third-rate horse on you for two prices. My prices enable you to make money. One customer doubled his money in ten days last spring by selling to a company. Remember, I have no agents or partners, and sell only at my barns.

Several Choice Mares for Sale

2 Registered Saddle Stallions

SHORT HORN CATTLE

I have for sale some very fine stock of both sexes at low prices, quality and breeding considered. Bulls old enough for service, also Cows with Calf by Prince Albert, Jr., who made a circuit of the State Fairs, and came out with an unbeaten record.

Berkshires of Quality

My herd is small, but of choice breeding, and I can always furnish stock that will advertise my farm, which means, satisfies the buyer.

Come and inspect my offerings (Lewis Station, Norfolk and Western, on the farm), and I am sure you will find as good stock as you ever saw elsewhere.

JOHN F. LEWIS,

Lynnwood,

Rockingham Co., = = = Virginia.

land whilst plowing it, it will be an advantage, as it will give a greater depth of soil and allow of the accumulation of moisture for the needs of the crop. During April apply 300 pounds of acid phosphate per acre broadcast and work this into the soil and then in the first week in May plant the seed and keep the crop thoroughly cultivated during growth, always working shallow and keeping the soil level.

2. Plow the land a little deeper than it was plowed before as soon as possible and then work it with the disc or cutaway harrow frequently so as to ensure a fine, well-mixed seed bed.

In this issue in the article, "Work for the Month" will be found advice as to the fertilizer to use.—Ed.

CARBIDE—SOY BEANS—HEIFER AND COUGH.

Will you please tell me if the refuse from carbide (used for light) is any use to the farmer as lime, and if so, how much would you apply per acre.

I would also like to know the best way to plant soja beans for seed, whether in rows or broadcast. At what state should they be cut, and how cured to be threshed?

I have a very promising heifer calf, eight months old, that has a dry cough, as if choked or tickled with a piece of chaff, but I am sure it has no chaff in its throat, as it has only had the best hay. Can you oblige me by telling me what to do for it? "A."

The carbide from acetyline gas-making can be applied to land for the same purpose as lime. Apply at the rate of one ton per acre.

Soy beans for seed should be planted in rows wide enough apart to allow of cultivation, and be dropped in the rows eight or ten inches apart. A couple of pecks will plant an acre. Cut when the bean pods are beginning to ripen, and they may be bound in bundles and set up to dry out like grain, or they may be thrown loose into small cocks and allowed to cure out in this way.

The calf is probably suffering from some affection of the Bronchial tubes, and will probably loose the cough with the warm weather. You might give the following: Spirits of ether nit., 11-2 ounces; spirits of ammonia arom., 2 ounces; camphor, powdered, 2 drams. Mix and give in a pint of flaxseed tea three times a day. Keep the animal warm.—Ed.

CANNING—MINERALS.

Do you think a \$25.00 canning outfit would pay? and where can I get into correspondence with the makers? I have looked through the Planter for an ad., but can't find one.

Will you kindly describe shale and marl. My son-in-law has on his farm a red substance of some kind. It appears to be between the nature of clay and soapstone. Then there




Paint Talks No. 2—Interior Painting

You have seen painted walls, ceilings and woodwork peel and scale. That's a sign that something is wrong, either with paint or painter, or both. Good White Lead and Linseed Oil, properly applied, will neither scale nor peel. Any paint will peel if applied over a damp surface. And paint loaded up with hard, unyielding substances (put in to save the expense of pure White Lead) will check, or crack and scale, no matter how carefully they are applied.

There is much wider latitude in the mixing of paint for interior work than for outside work. Turpentine may be used freely instead of linseed oil, giving the beautiful dull or "flat" effects. This treatment would be ruinous out in the weather.

A great range of delicate tints are suitable inside also. These cannot be secured at their best except with the finest White Lead—the Dutch Boy Painter kind. It costs no more to have this guaranty of purity of your paint material. Insist on having White Lead with the Dutch Boy Painter on the side of the keg. At your paint dealer's.

Read about our House-owners' Painting Outfit  **NATIONAL LEAD COMPANY**
An office in each of the following cities:
New York Boston Buffalo Cincinnati Chicago Cleveland
St. Louis Philadelphia John T. Lewis & Bros. Company
Pittsburgh (National Lead & Oil Company)

Painting Outfit Free

We have prepared a little package of things bearing on the subject of painting which we call House-owners' Painting Outfit No. 1

- It includes:
- 1—Book of color schemes (state whether you wish interior or exterior schemes.
 - 2—Specifications for all kinds of painting.
 - 3—Instrument for detecting adulteration in paint material, with directions for using it.
- Free on request to any reader who asks for House-owners' Painting Outfit No. 4



Get Our Book and We'll Make Right Prices To Interest You To Trade



Get our interesting "Black Motor Buggy" Book Free and find out about the only motor buggies and surreys that are good country road "mudders" and "hill climbers" and built for practical use. No jarring—No blowups on tires—Speed 2 to 25 miles an hour—Run 30 miles on 1 gallon of gasoline—Safe—Reliable. Women can easily run



BLACK MOTOR BUGGIES AND SURREYS

Buggy is 10 horse power—Surrey, 18 horse power. Both "get there" and "back again" every trip, and save time, worry and expense. Investigate and we will make you right prices. Write for Catalog No. A-221.

BLACK MFG. CO., 124 E. Ohio Street, Chicago, Illinois



Blacklegoids

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:
New York, Kansas City, Baltimore,
New Orleans, Boston, Chicago,
St. Louis and
Minneapolis, U. S. A.

PARKE, DAVIS & CO.
DEPARTMENT OF ANIMAL INDUSTRY.
DETROIT, MICHIGAN, U. S. A.

BRANCHES:
London, Eng. Walkerville, Ont.
Montreal, Que. Sydney, N. S. W.
St. Petersburg, Russia.
Bombay, India.

is another substance which resembles soapstone when you first dig it out of the earth. You can take a sharp knife and shave it almost as smooth as a razor hone, but when it is exposed to the sun and air it crumbles up fine and becomes very hard, but no grit is in it. Can you tell me what they are, and do they have any value?

C. M. FARRAR.

Putnam Co., W. Va.

If you have a surplus of fruits and vegetables which you cannot profitably sell as gathered, it will no doubt be profitable to can them, as for canned goods when of fine quality, there is always a market. You will find advertisements from two firms of canning outfit makers now running in *The Planter*.

You should send samples of the minerals to the Geological Bureau of the Department of the Interior at Washington, and ask them to advise you as to their value.

LAME MARE.

Please advise me what to do for a lame mare. I commenced (last April) to use a mare, then three years old, and well grown. She was no trouble, and the work was light and not constant, but after a month's use, she would start with a slight limp in right hind leg or foot; after going a little way would stop limping, then after standing a while, would limp

For Larger Crops and Richer Soil at Lowest Cost—Fertilize with FARMOGERM

High-Bred Nitrogen-Gathering Bacteria

You know that the big crops are the result of plenty of nitrates in the soil. And you know that nitrates are what cost most in commercial fertilizers. Then let us show you how you can solve this great problem and supply your soil with enough nitrogen to supply several bumper crops, at the low cost of \$2.00 an acre, and

Without Extra Work

Get our free book, reports from high authorities and many farmers who have tried it and know. We can prove every claim. The U. S. Department of Agriculture states that the pure culture method of soil inoculation has "come to stay." Farmogerm is a pure culture of nitrogen-gathering germs that have been carefully selected and bred up to a state of strong vitality and great nitrogen fixing power. That is our guaranty. Farmogerm is a jelly-like culture, put up in specially sealed bottles, guaranteed to reach you in perfect condition and to keep for months.

Trial

Bottle

for 10c

Make Box Test in the House

"Seeing is believing"—and so for 10c in stamps we will send you enough Farmogerm, with full directions to make a test with before planting time. Mention crop you will use it for.

It Is Ready for Use

when you get it. Just mix with water and moisten the seed or spray on soil or young plants. The bacteria will increase rapidly, by the millions, in the soil, and draw nitrogen from the unlimited supply in the air, feeding it to the growing crop and storing it in the soil for future crops.

Alfalfa, Clover, Peas, Beans, all legumes, thrive best and enrich the soil in nitrates for future crops only when well supplied with their special bacteria. Otherwise they drain the soil instead of enriching it. Because Farmogerm supplies the right bacteria in the right way and in the right form, it increases the yield and the food value of the immediate crop, and

Makes Poor Soil, Good Soil

Write today for Free Book No. 13 which gives full information. Mention the crop you wish to inoculate. Or send \$2.00 for a bottle for one-acre treatment, or 50c for garden size for peas, beans and sweet peas.

For Sale by Leading Seed Houses

Earp-Thomas Farmogerm Co.
Bloomfield, N. J.



Putnam Co., Fla., Feb. 10, '09.
I read the Southern Planter with much interest.
W. E. WALKER.

Monroe Co., W. Va., Jan. 4, '09.
I value the Southern Planter highly.
CLARENCE SYMMS.

FIELD SEED, BEANS, PEAS, POTATOES, ETC.

We have in stock all different varieties of Field Seed, including CLOVER, TIMOTHY, HERDS GRASS, ORCHARD GRASS, KY. BLUE GRASS, TALL MEADOW OAT GRASS, ALFALFA, ALSYKE, CENTRAL PARK LAWN GRASS SEED, RYE GRASS SEED; also SEED OATS, RYE, VETCHES, SEED POTATOES, Maine grown, early and late varieties, MILLET, SORGHUM, KAFFIR CORN, BEANS, PEAS, SEED CORN, ONION SETS, MILL FEED of all kinds, CORN AND OAT CHOP, MEAL and HAY

When you order our AA brands of Field Seed, you may be sure that you have gotten the highest grade seed obtainable. We fill orders as low as possible, quality considered.

We pay special attention, also to our Poultry Department. There is no better mixture than our National Chicken Food. We also handle Meat Meal, Shell and Crab Meat Scrap.

We are also large buyers of home grown Seed, Grain and Grass Seed. Send samples and we will make you offers delivered your R. R. station. We will be glad to make quotations and send samples on application.

N. R. SAVAGE & SON, RICHMOND, - - - - VIRGINIA.

again on starting and stop limping in a little distance. There is no swelling or soreness about foot or leg, but the trouble is growing worse, and now, sometimes she is inclined to put the foot down on the toe, instead of putting it down flat on the ground. no lameness anywhere else. There is no veterinary surgeon in this part of the State, or I would see him. Kindly advise me how to cure it.

CONSTANT READER.

Northumberland Co., Va.

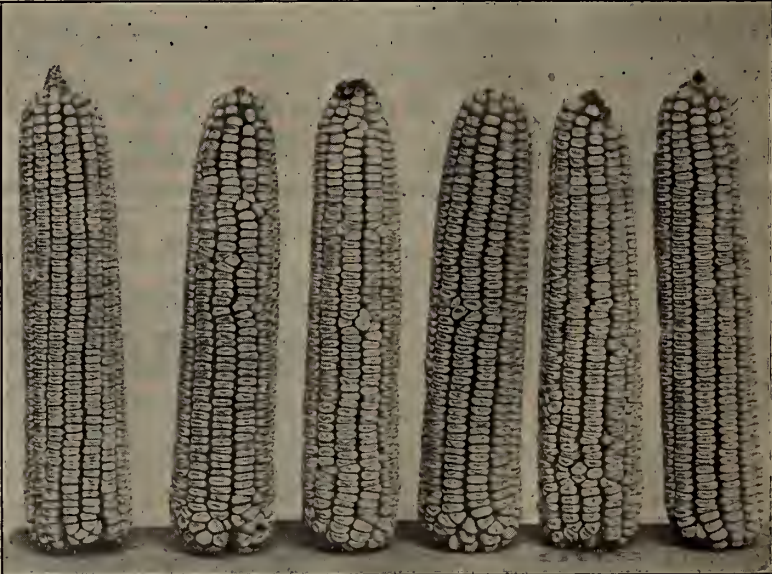
We think it probable that the lameness is caused by a strain which the horse has had at some time, or it may be that it is caused by rheumatism. We would try rubbing it with Gombaults' Caustic Balsam which you will find advertised in The Planter. If this does not cure the trouble we would blister the leg and foot with a Spanish-fly blister.—Ed.

BREED OF POULTRY TO RAISE.

I am thinking of raising pure-bred poultry on a small scale. I would like to have some advice as to what breed you think I had better get, and would you advise buying a small flock of birds or a few sittings of eggs. I prefer pure white birds, and I have my eye on the White Wyandottes, but know very little about the breed. Do they generally lay well, and are they early sitters? I see lots of them as well as other breeds advertised in The Planter. A little advice in the next issue of The Planter will be very much appreciated.

R. H. S.

Get the breed you admire the most. A man always gives his best attention and care to that which pleases him best. The white Wyandottes are good fowls and fairly early sitters. They make excellent broilers.



THE MOGUL CORN
BEST OF ALL.

Write to-day for full particulars. It will pay you to know.
Write full address.

CHAS. F. GROSSMANN, 19 Bank St., PETERSBURG, VA.
Seed Grower and Merchant.

SUGAR LOAF COTTON FARM'S

Highest Grade of Improved Farm Seed. The earliest and most perfect breeds. Two crops annually producing \$500 per acre.



Sugar Loaf King's Improved Cotton Seed; 3 1-3 bu. \$3; 10 bu., \$8.50; 50 bu. \$37.50.

Sugar Loaf Prolific Seed Corn. 1/2 bu. \$1.50; 2 bu. \$5; 10 bu. \$20.

Will send free one dollar's worth of Rocky Ford Cantaloupe and Stone Tomato Seed with an order of \$10. Catalogue Free.

I. W. MITCHELL, Prop., Youngsville, N. C.

TELL THE ADVERTISER WHERE YOU SAW HIS ADVERTISEMENT.

 <p>EARLY JERSEY WAKEFIELD</p>	 <p>CHARLESTON WAKEFIELD</p>	 <p>SUCCESSION</p>	<h1>CABBAGE PLANTS</h1> <h2>EARLY HEADERS</h2> <h2>MONEY MAKERS</h2>
<p>Earliest Header. Fine, Medium Size. Excellent Shipper. Delicious for Table.</p>	<p>About ten days later than E. Jersey. A full size larger. A Money Maker.</p>	<p>Earliest Flat Cabbage. A large yielder and a good shipper.</p>	<p>THESE ARE THE KIND THAT MADE SOUTH CAROLINA FAMOUS FOR CABBAGE GROWING</p>
<p>They need no introduction. We guarantee FULL COUNT, safe delivery, and satisfaction or your MONEY REFUNDED. Send money with order, otherwise plants will be shipped C. O. D. and you will have to pay return charges on the money, thus adding to the cost of your plants.</p> <p>Prices F. O. B. Young's Island: 500 for \$1.00; 1,000 to 4,000 at \$1.50 per 1,000; 5,000 to 8,000 at \$1.25 per 1,000; 9,000 to 20,000 at \$1.00 per 1,000. Special prices on larger quantities. Prompt attention given all orders and inquiries.</p> <p>Illustrated catalogue mailed free on application.</p>			
<p>C. M. GIBSON, Box 55, Young's Island, S. C.</p>			

**SEEDING GRASS WITH PEAS—
YELLOW.**

I would like to know something about seeding grass with peas, as told by Mr. Townes, of Culpeper, Va., in your September issue. Is it likely to succeed, and would it be practical to sow orchard grass and fertilizer on this young timothy with a drill the next spring?

2. Can you tell me something about "Yellows" in peach trees? I have just dug up my peach trees because of the yellows, and I would like to know whether it would be safe to plant young trees on same land again? Am I likely to get this disease in the young trees from the nursery?

3. You advertise the Southern Poultry Guide as containing 150 pages, but the copy I received as a premium has only 119 pages. It seems to be an abridged edition. How is that?
SUBSCRIBER.

Fauquier Co., Va.

1. You can rely with confidence on what Mr. Townes says about the seeding of grass with cowpeas. The only risk in adopting the practice is getting the pea crop too heavy, when it may smother the young grass. On good land the seeding of peas should not be a heavy one, so as to avoid this danger. You can sow fertilizer on the timothy in the spring, either bone meal or acid phosphate and potash, and harrow this in lightly, and then sow orchard grass and roll the land.

2. You should not plant peaches again on land from which you have dug trees infected with the "Yellows" until it has been cultivated in other crops for a year or two. You are not likely to get the "Yellows" from the nursery, as all nurseries are under inspection, and the owners are required to fumigate the trees before sending them out, and have to have a clean bill of health before being allowed to ship.—Ed.

3. The advertisement as to the Southern Poultry Guide was prepared before the book was off the press, and at that time it was contemplated to make it a 150-page book, but in revising for the press it was condens-

**FROST PROOF CABBAGE PLANTS
GUARANTEED TO SATISFY PURCHASERS**



EARLY JERSEY WAKEFIELD The Earliest Cabbage Grown. **CHARLESTON LARGE TYPE WAKEFIELD** 2d Earliest. **SUCCESSION** The Earliest Flat Head Variety. **AUGUSTA TRUCKEE** A little later than Succession. **SHORT STEMMED FLAT DUTCH** Largest and Latest Cabbage.

PRICE: In lots of 1 to 4 m. at \$1.50 per m., 5 to 8 m. at \$1.25 per m., 10 m. and over, at \$1.00 per m.
F. O. B. YOUNG'S ISLAND, S. C. Our Special Express Rates on Plants is Very Low.

We grew the first Frost Proof Plants in 1868. Now have over twenty thousand satisfied customers; and we have grown and sold more cabbage plants than all other persons in the Southern states combined. **WHY?** because our plants must please or we send your money back. Order now; it is time to set these plants in your section to get extra early cabbage, and they are the ones that sell for the most money. Special terms to persons who make up club orders. Write for illustrated catalogue.

Wm. C. Geraty Co., Box 6 Young's Island, S. C.

ESTABLISHED 1850.

1,200 ACRES.

TREES!

We are wholesale growers of first class nursery stock of all kinds, Fruit, Shade, Ornamental Trees, Shrubbery, Hedges, Small Fruits, etc., Asparagus, Strawberries, and California Privet in large quantities.

The **BEST** is the **CHEAPEST**. Ours is the **CHEAPEST** because it is the **BEST**. Handling Dealers' orders a specialty. Catalogue free.

FRANKLIN DAVIS NURSERY COMPANY.

Baltimore, Maryland.

Cahoon Seed Sower

Sows all kinds of grain and grass seed. The most correct, simple and durable broadcast sower made. Lasts a lifetime—made of steel, iron and brass. *Guaranteed to do more and better work than any other hand seed sower.* You save time and seed and get bigger crops with the **Cahoon**. Pays for itself many times over every year. Ask your dealer for the **Cahoon**. Send to-day for the **Seed Sowers' Manual**. It tells how to save seed and have bigger crops. *It's free.*

GOODELL CO., 63 Main St., Antrim, New Hampshire

ed somewhat, and only made 119 pages.—Ed.

WET LAND.

There are several places over our plantation that are low and wet most of the year. They are known as "crayfish land" around here, and the pipe clay comes so near the surface that they are hard to drain successfully. None of the places are over an acre in area, and after a long dry spell they are dry enough to plow, but swamp grass kills out other grasses and corn is drowned out with the return of wet weather.

Will you kindly advise me how to treat and work these spots in crops, so as to make them return profit.

J. C. COURTER.

Amelia Co., Va.

There is no way in which you can deal with these wet places so as to make them productive except to tile drain them. You should put in tile drains (say 2-inch tiles) seven yards apart over the whole of the wet places, and put these down three feet in the ground, and let them discharge into a main drain of four inch tiles, to be carried to a good open outfall, and thus lower the water table in the land, which will then dry out, and may be brought into profitable cultivation. In this issue you will find an article on this subject of drainage by one who has had large experience.—Ed.

RUST ON COTTON.

I have a piece of land that I wish to plant in cotton this year. It has been in cotton several times in my recollection, but the rust would always ruin it. It is a very good piece of land, made twenty bags of peanuts per acre last year. What can I do to prevent rust getting in it? Would you give the address of some parties or rather, dealers, from whom I can buy acid phosphate and potash?

C. F. WHITFIELD.

Southampton Co., Va.

The proper fertilizer to use to prevent rust in cotton is Kainit. You should use this liberally, say at the rate of 300 pounds to the acre in the fertilizer you apply. You can buy acid phosphate and potash from T. C. Andrews & Co., Norfolk, and from other parties offering them in the advertising columns of this issue. We name T. C. Andrews & Co. as they are probably more convenient to you than the other parties.

FERTILIZER FOR TOBACCO— SPRING AND SUMMER PASTURE.

1. I have some light loam land with clay subsoil that will produce half a bale of cotton per acre. It was planted in peanuts last year, made a fine crop of peanuts. I want to plant tobacco this year. It grows

More Nitrogen Than the Crop Can Use At A Cost of \$2.00 An Acre

That is a proved fact. You know that Government experts and practical farmers have proved the unequalled value of seed or soil inoculation when it is properly done. The difficulty in the past has been to supply the farmer with the right bacteria in a strong, active form.

Farmogerm High-Bred Nitrogen Gathering Bacteria

solves that problem. You may now inoculate a crop of alfalfa, any clover, peas, beans or other legumes, and be sure that the bacteria will feed that crop all the nitrates it can use and will store still more nitrates in the soil which will be of vast benefit to several future crops of any kind. Farmogerm must not be compared with other nitrogen cultures. It is different. It is right. It will come to you in a specially sealed bottle—

All Ready For Use Just mix with water and moisten seed or spray over ground or young plants. The bacteria will get to work at once, stimulating growth, insuring larger yield, earlier maturity and greater food value of the crop.

Prove It For 10c We will send you a small bottle of Farmogerm for 10c, post-paid, so you can make a **Box Test** in your house before planting time. Then you will want more. Mention crop you want to test. Stamps accepted for Trial Size. In regular sizes, \$2.00 an acre—Garden size, 50c. **Write Today For Free Book No. 13.** See the reports of practical farmers and experts who have used it and know. All leading seed houses sell Farmogerm.

Earp-Thomas Farmogerm Co., Bloomfield, N. J.

**Makes
Poor
Soil
Good
Soil**

42 YEARS EXPERIENCE.

OLD DOMINION NURSERIES.

W. T. HOOD & CO., Prop.,
Richmond, Va.

Growers of High Grade Nursery Stock.

Special Inducements in Peach and Kieffer Pears for Commercial Orchards.
Full line of Fruit Trees, Ornamental Trees, Roses, Shrubbery, Etc. Plant a California Privet Hedge—none better.

Write for our descriptive catalogue of 64 pages—Correspondence Solicited.

.. ELMWOOD NURSERIES ..

WE ARE GROWERS AND OFFER A FINE ASSORTMENT OF

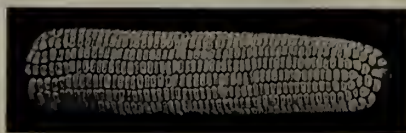
APPLES,
CHERRIES,
NECTARINES,
GOOSEBERRIES,
RASPBERRIES,
ORNAMENTALS,

PEACHES,
PLUMS,
GRAPE VINES,
STRAWBERRIES,
ASPARAGUS,
SHADE TREES.

PEARS,
APRICOTS,
CURRANTS,
DEWBERRIES,
HORSERADISH,
HEDGE PLANTS,

WRITE FOR CATALOGUE.

J. B. WATKINS & BRO, Midlothian, Va.



PURE BRED SEED CORN

FOR THE
SOUTH

CHAS. W. CALDWELL, DANVILLE, KY.

bright tobacco, but small. Please give formula that will grow a heavier tobacco.

2. What is the best to sow on good land for spring and summer pasture? I have heretofore sown grasses and clover in the fall, but never in the spring.

1. If you will refer to the article, "Work for the Month" in this issue, you will there find advice as to the fertilizer to use to make the best yield of bright tobacco, as ascertained by the experiments made last year.

2. You can only sow rape and cowpeas for spring and summer pasture now. Grasses and clover sown now will not be fit to pasture until fall, and ought not then to be grazed except by calves, or light stock. They should be mown rather than grazed the first year. Rape sowed this month will give grazing by the latter part of April, and can be grazed into June, and cowpeas can then follow to be grazed in summer and early fall. Rape is well suited for hogs, sheep and calves, but not for milch cows.—Ed.

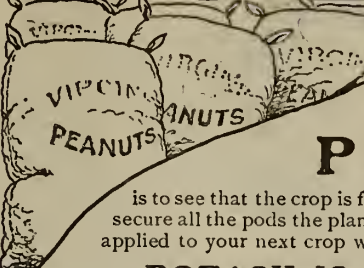
ALFALFA—COWPEAS AND SOY BEANS.

1. I have about ten acres of good land that I have tried to grow alfalfa on. It lived one summer, and all disappeared except on one red piece, (formerly a gall), about a quarter of an acre in size. Last fall I sowed in crimson clover and have a fairly good stand. Would you advise plowing under the clover and sowing peas and then alfalfa, or had I better change and put alfalfa on some of my red land. It seems to thrive better on red land. If I change, I wish to sow orchard grass and clover on ten acres, what is the best time to sow? The ten acres are very rich, and have yielded thirty to thirty-one bushels of wheat.

2. Which is considered best, hay, peas or soja beans, considering cost of each, and which is best for land? Halifax Co., Va. T. O. WILSON.

1. We judge that your land is lack-

POTASH



The Paying Part

of a crop of "goobers" is the nuts. The best guarantee you can have for a maximum yield of

PEANUTS

is to see that the crop is fed properly—to make a thrifty growth and secure all the pods the plants can possibly produce. Potash properly applied to your next crop will prove to you that

POTASH IS PROFIT

Balance your commercial fertilizer so that it carries 8 to 10 per cent. of actual Potash, by adding 20 to 25 pounds of Muriate of Potash to the hundred.

Send for Free Literature on fertilizing PEANUTS and all other crops.

GERMAN KALI WORKS

1224 Candler Bldg., Atlanta, Ga.
NEW YORK—93 Nassau Street.
CHICAGO—Monadnock Block.



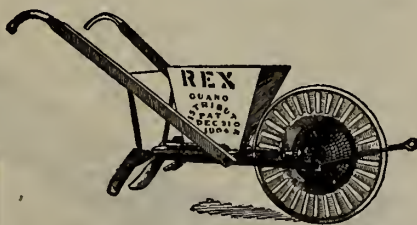
STRAWBERRY PLANTS.

Send \$2.00 for one thousand plants; \$8.00 for five thousand. Klondyke, Lady Thompson, Michels, Excelsior, etc. Fruit Trees, Grape Vines, Garden Seeds, etc. Free Catalogue.

JOHN LIGHTFOOT,

Dept. 7., E. Chattanooga, Tenn.

REX GUANO DISTRIBUTOR



A FORCE FEED MACHINE. The feed mechanism is a spiral conveyor, making a perfectly uniform feed; spreads the fertilizer in a broad band, thereby increasing its value; makes no noise; easily regulated to sow any quantity from 200 to 800 pounds per acre. Once set, the feed never changes. Write for circular and prices on the only distributor on the market with a perfect feed.
JOHN BLUE, Laurinburg, N. C.

TELL THE ADVERTISER WHERE YOU SAW HIS ADVERTISEMENT.

A WISE FARMER SHOULD USE

LEE'S PREPARED AGRICULTURAL LIME

FOR Top Dressing, Wheat, Oats, Alfalfa, Grasses.

Apply 400 to 500 Lbs. Per Acre in March or April and Increase the Yields.

MANUFACTURED BY

A. S. LEE & SONS CO., INC.

RICHMOND, VA.

Send for Circulars Department A.

ing in lime for the successful growth of the alfalfa. We would try the same land again, as it will now be inoculated with the alfalfa bacteria to a considerable extent. We would sow the cowpeas, making a good preparation of the land for them, and apply 250 or 300 pounds of acid phosphate, and 100 pounds of muriate of potash, so as to get a heavy growth which will smother down all weeds. We would cut this crop for hay and then apply one ton of lime, or even more, if it can be conveniently gotten per acre, and cut this into the ground with the disc. Let lay for a week or ten days, and then apply 400 pounds of bone meal per acre, and sow twenty-five pounds of alfalfa seed per acre, and harrow lightly and roll. Sow inoculated seed, or better spread some soil from an alfalfa field, say 400 or 500 pounds per acre when sowing the seed, and you should get a crop which will stand.

2. The soy bean hay is the richest in protein, but is rather coarser feed, but is well eaten by stock of all kinds. There is no doubt but that the soy beans will supply more nitrogen to the land than the peas if cut before the beans are made, but if the beans are allowed to mature, they will take up much more of the nitrogen from the soil than the peas will if allowed to mature as soy beans are much richer in nitrogenous matter (protein) than cowpeas. They are the richest in protein of any crop grown.—Ed.

NITRATE OF SODA FOR WHEAT AND OATS—FERTILIZER FOR CORN.

Please tell me if it will pay to put a dressing of nitrate of soda on wheat and oats. I have about fifty acres of wheat and oats. When I sowed them I used 4-10 grade, and was told to apply the soda in spring, if you think it is well to use it please state the best time to put it on, and the amount to be used per acre.

3. Do you think it will pay to top dress a field of timothy and clover with the soda? I have a field of forty acres, that has been in grass four years; heavy red land; have just finished turning it. I wish to put it in corn this year. Am feeding sixty beef cattle with ensilage and cottonseed meal and will have enough manure to go over a large portion of it with spreader. Kindly tell me the the minerals to buy to mix and use under this corn to get it started quick on account of the bud-worm.

J. T. PRUDEN.

Guilford Co., N. C.

We have no doubt but that it will pay you to apply a top dressing of 100 pounds of nitrate of soda per acre to the wheat and oats in the spring as soon as the crops start to grow freely. Apply broadcast when the crops are dry, so as to avoid it stick-

74. Two hundred acres in Fairfax county, Va., $\frac{3}{4}$ miles from Herndon, a thriving town of over 1,000 inhabitants with 5 churches, 2 schools, stores, mills, etc. Five trains daily to Washington, D. C., 27 miles. The land lies within the town limits on one of the best macadam roads in the county. It is high and healthy, with a beautiful outlook. One can live here and enjoy farm life and still enjoy the numerous benefits the town has to offer, and be in easy access of Washington. Thirty acres of second growth timber, the balance of the land in a high state of cultivation, well fenced by wire and rails; running stream and two good springs. Ten-room house in good condition, porches and cellar, beautiful grounds, lawn and shade trees; barns well lighted and ventilated, modern and in excellent condition, have stanchions for 60 cows and 9 horses. Good carriage shed, up-to-date milk house, ice house, new granary, 2-room tenant house, all in good condition. The improvements could not be built for less than \$7,000. One could stock this place and begin making money at once. It has been operated as a suc-

cessful dairy farm for several years, the cream bringing \$1 per gallon the year round. The owner wishes to sell as she does not wish to engage in active business any longer. This is a beautiful home, and a practical and safe investment. Price \$17,000. On very easy terms.

66. Two hundred acres, 1 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, 2 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 the neighborhood. Price \$15,000 Terms—\$3,500 down, balance on easy terms. Make us an offer on this place.

A. H. BUELL

Real Estate Broker,

Herndon, Fairfax Co., Va.

Please wire me at my expense when you are coming.

FREE Book of Facts and Figures On Roofing and Samples to Test

Write for this book today. Its suggestions will save you money and trouble if you are going to build or repair. We'll also send samples of ASBESTOS ROOFING, the only kind that protects buildings from fire; the only permanently durable ready roofing, which needs no painting, coating or attention of any kind. Other ready roofings have a felt foundation, made of shoddy, paper pulp, rags, wool, etc. Our foundation is *Asbestos*, the fireproof, indestructible mineral fibre—waterproofed and weatherproofed.



J-M ASBESTOS ROOFING

Let Us Quote Prices

on any roofing material you need. We make all kinds of ready roofing and Asbestos Siding. Also J-M Roof Coating, the most durable compound known for making old leaky roofs tight again. Get our money-saving prices and suggestions before you buy.

Write for Book No. 62 and the samples.

H. W. JOHNS-MANVILLE CO., Home Office, 100 William St., New York, N.Y.



Clip Your Horses in the Spring

It Pays—Clipped horses look better, feel better and do better work—Clip

With the Stewart Ball Bearing Clipping Machine

The only ball bearing clipping machine made. Do not buy a frail, cheaply constructed clipping machine that will last you only a season or two, and give trouble all the time, when you can get this splendidly made, enclosed gear ball bearing machine for less than \$2.00 more. Every gear in this machine is cut from solid steel bar and made file hard. They all run in an oil bath, so friction and wear are practically done away with. It turns easier, clips faster, and lasts longer than any other clipping machine made. **WE GUARANTEE IT FOR TWENTY-FIVE YEARS** Price all complete, only \$7.50. Get it from your dealer or send \$2.00 and we will ship C. O. D. for balance. Write for our big free catalog. Try this machine out side by side with any other machine on the market, at a price, if this is not worth three times as much, send it back at our expense both ways, we will refund every cent you paid. Send today.



CHICAGO FLEXIBLE SHAFT COMPANY, 150 OHIO ST. Chicago

ing on the leaves and burning them. We think it would also pay you to apply a similar dressing to the timothy and clover.

We do not think it will pay to apply any fertilizer to the corn, other than the manure. This will always make corn better and cheaper than any commercial fertilizer. A top dressing of nitrate of soda applied down each side of the corn rows as soon as the corn starts to grow will push it out of the way of the worms. 100 pounds to the acre will be sufficient. If you are going to use any commercial fertilizer when planting the corn you might mix the nitrate of soda with it, but it always acts most effectually when applied after a crop has started to grow, and there is less risk of loss by leaching when so applied.—Ed.

LIMA BEANS—NUX VOMICA TO KILL CROWS AND EFFECT ON TURKEYS.

Will you kindly publish in the next issue of your most valuable paper:

1. What to do for best results from lima beans. Mine all go to rank, luxurious vine with comparatively no beans.

2. Will nux vomica in chicks' food (recommended for killing hawks) kill crows also, and will it harm young turkeys, if fed to them as to young chickens?

MRS. RAYMOND SLAUGHTER,
Rappahannock Co., Va.

1. Your land is too rich in nitrogen for the lima beans, and lacks the mineral fertilizers, phosphoric acid and potash to balance it. Apply acid phosphate at the rate of 300 pounds, and muriate of potash at the rate of 100 pounds to the acre, and we think you will get the beans.

2. Yes, the nux vomica will kill the crows as well as the hawks, but you must not let the young turkeys have any of it. Only the gallinaceous fowls which came originally from the far East (Asia) are immune from its effects.—Ed.

HOG PASTURE—TEOSINTE.

1. I would like to arrange an orchard of about five acres so as to have hog pasture the year through. About two-thirds of this orchard is in permanent pasture. If I were to sow rape on the remaining third as soon as practicable this spring, how long could it be pastured? I mean by that, how long would it take the patch to run its course?

2. There is another orchard at some distance from the first, consisting of about six acres, half of which is in permanent pasture. This orchard will not be available for pasture until the harvest is taken from an intervening field. Will the rape on patch No. 1 hold out until No. 2, sown to soy beans, is ready for pasture?

3. Then on patch No. 1 in orchard

Our 1909 Model



Pat. Dec. 4, '06
Others pending

FREE
Write for Book, "The Sole of Steel," or order a pair of STEEL SHOES on the blank below.

Wear STEEL SHOES

Absolute Protection Against Colds, Rheumatism, Stiffness, Discomfort No More Blistered, Aching Feet GOOD-BYE to CORNS and BUNIONS!

**Off With the Old, Rough, Wrinkled Leathers!
On With the Comfortable STEEL SHOES!**

There's more good wear in one pair of Steel Shoes than in three to six pairs of the best All-Leather Shoes. And comfort! The very first time you slip your feet into Steel Shoes, they feel fine. They need no "breaking in." And the longer you wear Steel Shoes the better you like them, for they keep your feet warm, dry and comfortable—though you work in mud or slush up to your shoe tops. Steel Shoes

are shaped to fit the foot, and the rigid steel bottoms and sides force them to keep their shape. No warping, no twisting, no leaking possible. And they are light shoes, too.

How Our 1909 Model Steel Shoes Are Made. The Wonderful Steel Bottoms

Steel Shoes solve the problem of the Perfect Work Shoe for all time to come.

The soles of Steel Shoes are an inch above the soles are stamped out of a special light, thin, rust-resisting steel. One piece of seamless steel from toe to heel. As a further protection from wear, and a means of giving a firm foothold, the bottoms are studded with adjustable steel rivets.

The adjustable steel rivets of the 1909 model Steel Shoes add the finishing touch of perfection. Practically all the wear comes on these steel rivets. When steel rivets wear down, you can instantly replace them with new rivets. And the rivets at the tip of toe and ball of foot are the only ones that wear. Steel Shoes never go to the Repair Shop, for there's nothing to wear but the rivets. And the Steel Soles shed mud almost as easily as they shed water. The cost is only 30 cents for 50 extra steel rivets. No other repairs are ever needed.

The uppers are made of the very best quality of pliable waterproof leather, and firmly riveted to soles. There is greater strength and longer service and more foot comfort in steel shoes than in any other working shoes in existence. It's in the steel and the pliable leather, and the way they are put together.

Throw Away Rubber Boots, Felt Boots and "Arctics"!

Rubber or felt boots heat the feet and make them sweaty and tender. Nothing more uncomfortable or more harmful to the feet. One pair of Steel Shoes will outlast at least three pairs of felt or rubber boots.

A man who wears Steel Shoes doesn't have to own three different styles of working shoes. No arctics or felt boots necessary.

Secret of Steel Shoe Elasticity

Steel Shoes have thick, springy Hair Cushion Insoles, which are easily removable for cleansing and airing. They absorb perspiration and foot odors—absorb the jar and shock when you walk on hard or stony ground. They keep your feet free from callouses, blisters and soreness.

Steel Shoes Save Doctor Bills

Wear Steel Shoes and you need not suffer from Colds, Rheumatism, Neuralgia, Lumbago, Stiffness of the joints and other troubles and discomforts caused by cold, wet feet. Keep your feet always warm, dry and comfortable in Steel Shoes. They protect your health and save doctor bills, while adding to your comfort.

Low Prices on Steel Shoes

Sizes, 5 to 12. 6 inches, 9 inches, 12 inches and 16 inches high.

Steel Shoes, 6 inches high, \$2.50 a pair, are better than best all-leather \$3.50 shoes.

Steel Shoes, 6 inches high, extra fine grade of leather, \$3.00 a pair, excel any \$4.50 all-leather shoes.

Steel Shoes, 9 inches high, \$3.50 a pair, are better than the best all-leather \$5.00 shoes.

Steel shoes, 12 inches high, \$5.00 a pair, are better than the best all-leather \$6.00 shoes.

Steel Shoes, 16 inches high, \$6.00 a pair, are better than the best all-leather shoes, regardless of cost.

One Pair of "Steels" Will Outwear 3 to 6 Pairs of Leather Shoes

The comfort of Steel Shoes is remarkable. Their economy is simply astounding! Practically all the wear comes on the rivets in the bottoms and the rivets can be replaced very easily. Don't sweat your feet in rubber boots or torture them in rough, hard, twisted, shapeless leather shoes. Order a pair of Steel Shoes today. Sizes, 5 to 12.

Satisfaction or Money Back

We strongly recommend the 6-inch high, at \$3 a pair, or 9 inches, at \$3.50, as they give best satisfaction for general service.

In ordering, state size shoe you wear. Enclose \$3 a pair for 6-inch size, and the best and most comfortable working shoes you ever wore will promptly be shipped to you. Your money refunded if you are not delighted when you see the Steel Shoes. Send today.

STEEL SHOE CO., Dept. 76 Racine, Wis.

Canadian Branch, TORONTO, CANADA

Order Blank for Steel Shoes

Steel Shoe Co., Dept. 76, Racine, Wis.

Gentlemen:—

I enclose _____ for \$ _____

in payment for _____ pair Steel Shoes,

Size _____

Name _____

Town _____ State _____

County _____ R.F.D. _____

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.

No. 1, can I sow a mixture of rye, rape, crimson clover and vetch, relying principally on the rape for fall pasture, and the others for winter and spring?

4. Several seed catalogues recommend "Teosinte" very highly as a forage crop specially adapted to summer feeding. What do you know of this plant?

D. W. V.

Augusta Co., Va.

1. Rape sowed this month will give grazing by the end of April, and will continue to grow until the hot weather sets in, say, up to the end of June, or into July, and cowpeas should then follow for late summer and fall grazing.

2. Soy beans will hardly be ready for grazing when the rape on Lot. No. 1 will have given out. Cowpeas would be ready sooner than soy beans. To graze soy beans too early cuts the crop off very considerably. They make heavy grazing when allowed to make a good growth before being turned on.

3. You can sow the rye, rape, crimson clover and vetch in July or August, on this patch, and this will give you fall and winter grazing.

4. Teosinte is a semi-tropical plant and better adapted to the Southside of Virginia than your section. We have seen it make good feed as far north as the James River, but it will not mature its seed there.—Ed.

SEED CORN.

I want to know where I can get the longest or deepest grained white seed corn.

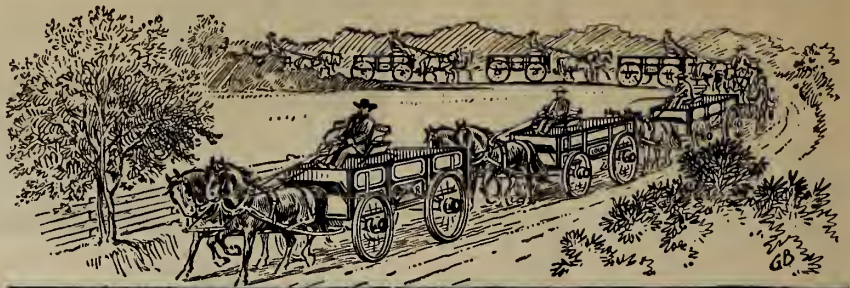
H. D. BROWNING.

Union, S. C.

You will find seed corn advertised in this issue by several parties, and the seedsmen advertising in this issue can all offer varieties likely to meet your wants. Write them.—Ed.

FERTILIZERS.

We have been reading after you for ten years or more, and you know what you are talking about. The writer was raised in Albemarle county, Va., and owns a farm, the soil of which resembles the red loams and red clays in the section mentioned. We turned under last fall a heavy crop of clover, averaging eight inches deep; this goes into corn and Regie tobacco. What combination of fertilizer would you recommend for this character of land, and how much per



WAGONS

The farmer is particular about the kind of wagon he buys—and rightly so—because a wagon is used nearly every day in the year. Note the following special features of the Weber, Columbus and New Bettendorf wagons, each one of which is built to give satisfactory service.

WEBER

For sixty-three years the name "Weber" has been the best guarantee as to the quality of a farm wagon. No other wagon is made better than the Weber—no other wagon is made with so much care. The Weber, king of all farm wagons, is the I. H. C. standard of excellence in wagon construction. Everything used in building Weber wagons is the best that the market affords—ironed on the made-to-order principle—painted as good as the average buggy.

COLUMBUS

The Columbus farm wagon compares favorably with other high grade wagons in quality of wood stock, ironing, painting and finish and has many points of special merit not found on other high grade wagons. All the running gear parts except the axles are the best quality of oak. The axles are select black hickory. The gears are well ironed, the rear hounds being ironed full length on the bottom.

NEW BETTENDORF

The New Bettendorf farm wagon is exceptionally strong, durable and light running. The gears are made entirely of steel, have greater carrying capacity than wood and weigh no more. There is never any trouble with loose skeins, season checks, improper seasoning or inferior quality of materials, such as is common on the ordinary wagon. The tubular axle is made in one piece. There are no joints at the collar and the removable malleable iron sleeve which protects the axle from wear is not found on any axle except the New Bettendorf.

Call on the nearest International agent who will be pleased to show you the meritorious features in the construction of the wagon he handles. Ask him for illustrated booklet and lithographed hanger, or if you prefer write us.

International Harvester Company of America

(Incorporated)

Chicago, U. S. A.

When corresponding with our advertisers always mention Southern Planter.

DON'T BUY GASOLINE ENGINES UNTIL YOU INVESTIGATE "THE MASTER WORKMAN," two-cylinder gasoline, kerosene or alcohol engine, superior to any one-cylinder engine; revolutionizing power. Its weight and bulk are half that of single cylinder engines, with greater durability. Costs Less to Buy—Less to Run. Quickly, easily started. Vibration practically overcome. Cheaply mounted on any wagon. It is a combination portable, stationary or traction engine. SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mfrs., Meagher and 15th Sts., Chicago. THIS IS OUR FIFTY-SIXTH YEAR.

acre. We can get nitrate of potash from sheep Dip Works, 12 per cent. ammonia, 35 to 40 per cent. potash, \$55 per ton. We can also get dried blood, high grade tankage, nitrate soda, ground phosphate, ground lime-stone. These articles could be assembled in short time. For a large 26 to 28-inch dark rich leaf, what would you use?

PHIL. BACON & SON.

Sullivan Co., Tenn.

I have frequently given the formula for tobacco, which I worked out from our fertilizer experiments on tobacco in North Carolina. This is 900 pounds of acid phosphate, 100 pounds of nitrate of soda, 600 pounds of dried blood, and 400 pounds of high grade sulphate of potash to make a ton. Where clover has been turned under I would not use more than 300 to 350 pounds per acre. On land without clover as much as 700 pounds has been used with great success in North Carolina. But do not increase the phosphoric acid by using tankage instead of pure dried blood, for an excess of phosphoric acid I found would always tend to thin papery leaves and big veins. I studied the results of lime in Maryland institutes this winter. One sample where 1,500 pounds of lime had been used was dark and heavy, but very coarse. Other samples where crimson clover had been turned under were much more desirable. All Maryland growers unite in saying that crimson clover gives them the finest tobacco. I have never raised the type of tobacco you name, but believe that the combination mentioned will make it.—W. F. Massey.

TOP DRESSING FOR OATS—FERTILIZER FOR SWEET POTATOES—TENANCY TERMS.

1. What kind of fertilizer shall I put on winter oats and rye, as a top dressing? Land loamy soil, with yellow and gray clay subsoil, which bakes very hard when exposed to the sun; land was plowed last year and limed, then left till October, when ragweed was disced in and rye oats sown and disced in. Same land has not been cultivated for several years.

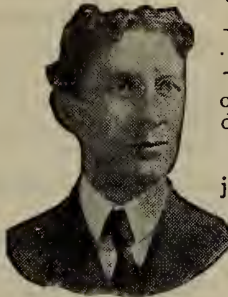
2. After cutting oats shall plow and put in corn, will it pay to fertilize corn?

3. Have one field covered with wild grass, and scrub pine intend to full pine, disc, plow and make ready for early sweet potatoes. Land is loam, with heavy clay subsoil. What fertilizer shall I use, and how much? Shall mix own fertilizer.

4. What do you think of this: Landlord furnishes land, seed fertilizer, tools, two horses, ten cows and feed. I do all the work; all but real estate with improvements, charged to farm account, all proceeds credited to same. When I make account balance, I own one-half personal property. Is this fair to both?

Our Bed-Rock Factory Price On this Split Hickory Buggy Saves You \$26.50

Made to Your Order



H. C. Phelps, President

IF people really knew what a big money-saving we offer on our factory-to-home plan, our factories would be so over-crowded with orders that we would not be able to meet the demand.

Just get our prices first—that's all.

Just let us prove to you in cold, hard figures just how much we can save you in money—how much we can add to your satisfaction—by making a genuine Split Hickory Buggy to your order, shipping direct from factory at factory prices, and granting you 30 days' Free Road Test.

One cash dollar spent with us has almost the value of *two* dollars at your dealer's.

Of course, he may give you a few months' time, but look at the awful interest you pay for the accommodation—\$26.50.

We make to order over 125 styles of Split Hickory Vehicles—including all styles of Top Buggies, Automobile Seat Two-in-One Buggies, handsome runabouts with fancy seats, regular seats and automobile seats, Phaetons, Carriages, Surreys, Spring Wagons and Harness.

Remember, we sell to you direct—at factory prices—no jobber, wholesaler or retailer receives *unearned profits* out of *your* buggy money.

The Split Hickory Special shown below made to your order for \$26.50 less than the dealer's price for anything like the value.

100,000 satisfied owners have bought vehicles *our* way. Every buggy sold on 30 days' Free Road Test and 2 years' guarantee.

Send for our Big Free New Catalog, showing More Vehicle Styles than 10 Big Warerooms

Note:—Celebrated Sheldon Genuine French Point Automobile Springs used on all Split Hickory Vehicles making them positively the easiest riding buggies on the market.

The handsomest, most complete, buggy book ever published. Describes our complete line—at prices that represent the greatest buggy values ever offered. Send for the book today. We pay the postage. Just write on a postal, "Send the book along." Address—

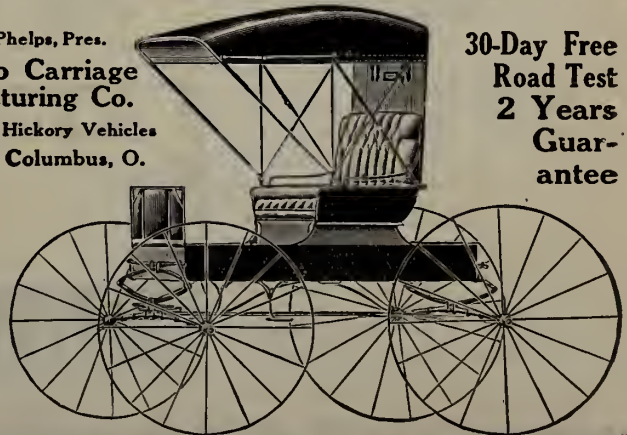
H. C. Phelps, Pres.

**The Ohio Carriage
Manufacturing Co.**

Makers of Split Hickory Vehicles
Station 294 Columbus, O.

**30-Day Free
Road Test
2 Years
Guarantee**

Save
\$26.50
Cash



5. What is a fair allowance for living and clothing for family of twelve, ages from twenty to two, this to be taken as a loan, but want a stated amount mentioned in contract.
RENTER.

Norfolk Co., Va.

Nitrate of soda at rate of 100 pounds per acre will make an excellent top dressing for the oats and rye. Put it on when the leaves are dry so as to avoid danger of scalding. Put it on just as growth fairly starts. Land is evidently deficient in humus, and needs a rotation with plenty of peas and crimson clover and feeding stock to build it up in humus from manure application. After rather an exhaustive crop like oats, you propose to run the land down further with corn. Why not sow peas after the oats, and make hay to feed, and make manure to help the land? Fertilizers on corn under such conditions will not pay. They may in a favorable season, increase the crop of corn, but the increase will hardly pay for the fertilizer. The land needs building up, rather than running down. On the sweet potatoes after turning down the turf well and not disturbing it in making the furrows use 400 pounds of acid phosphate, fifty pounds of nitrate of soda, 100 pounds of cottonseed meal and fifty pounds of muriate of potash per acre. Make ridges shallow and cultivate so as not to disturb the sod turned down. Your rental is a matter that I cannot criticize. Local conditions and crops make conditions differ in different localities, and business contracts must be a matter between the parties. Nor could I say what it would cost you to live, for people's ideas of living vary very much. You can figure that out better than I can.—W. F. Massey.

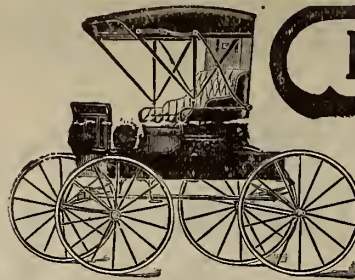
CORN FOR LAND LIABLE TO FLOOD.

My corn, a large cob dent, on low grounds, suffered so much loss from freshets last August that I would like to have Prof. Massey state whether there is any difference between the different sorts of corn, in ability to stand overflow that covers the ears, without great damage?

Whether or not a small cob, tight shuck and flinty grain, like Hickory King, would damage less than the horse-tooth sorts? The cob on my corn kept perfectly sound, while the corn mostly rotted or shriveled; had very little kernel or substance of grain.
CUMBERLAND.

Cumberland Co., Va.

I rather expect that a corn like Hickory King would be less damaged than an ear having heavy cobs, as the grain is harder, and the cob will dry out more readily. But I have never had actual experience in this, and judge only from the character of the



ELKHART BUGGIES

are the best made, best grade and easiest riding buggies on earth for the money.

For Thirty-Six Years

we have been selling direct and are **The Largest Manufacturers in the World**

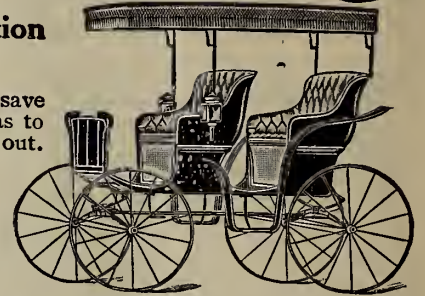
selling to the consumer exclusively.

We Ship for Examination and Approval

guaranteeing safe delivery, and also to save you money. If you are not satisfied as to style, quality and price you are nothing out.

May We Send You Our Large Catalogue?

Elkhart Carriage & Harness Mfg. Co.
Elkhart, Indiana



**Canton Plows, Harrows
Planters, Listers, Cultivators
Stalk Cutters, Potato Diggers
Beet Implements, Carts
Garden Tools, &c.**

67 Years of "Knowing How" Hammered Into Every One of Them.

Over 1400 Different Styles and Sizes, to meet all conditions in all kinds of soil. Noted for Strength, Simplicity and Ease of Operation. We are the originators of many of the best known implements made, and the exclusive features are protected by patents. When you pay out your money get the best. Experiments are expensive.

Insist on getting **P. & O.** implements from your dealer. A Beautifully Illustrated Pamphlet, and a P. & O. Catalog, will be mailed free on request. Remember P. & O. Canton Implements have been in the lead for over two-thirds of a century and are backed by an unqualified guarantee. Ask for Catalog No. 130

Parlin & Orendorff Co., Canton, Ill.

How to get bigger crops

Get a Planet Jr. Saves two-thirds your time, prepares the ground better, and with less seed, gives greater results. No other farm and garden implements do the work so well or last so long.

Planet Jr.

No. 23 Planet Jr. Combined Hill and Drill Seeder, Double Wheel-Hoe Cultivator and Plow opens the furrow, sows the seed accurately in drills or hills, covers, rolls, and marks out next row in one operation. It also has perfect plowing, hoeing, and cultivating attachments.

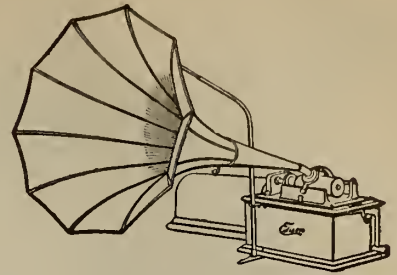
Planet Jr. 12-tooth Harrow Cultivator and Pulverizer is a wonderful tool for berry-growers and market-gardeners. Works deep or shallow, without throwing earth on the plants, and pulverizes the soil thoroughly. Invaluable wherever fine close work is needed.

Write to-day for our new free 56-page catalogue of 1909 Planet Jrs.—45 kinds—a tool for every gardener's need.

S. L. Allen & Co., Box 1107X, Philadelphia, Pa.



The Telephone, the Trolley and the Rural Mail Delivery bring you everything you need from the city except



entertainment

By entertainment we do not mean that which you obtain from books, magazines or pictures. We mean the kind offered by the theatre, the concert or the opera.

You get such entertainment occasionally, but you go a long way for it, you pay a good price for it, and you often find that it is not worth the time, the price or the effort

You work in the country and it is usually long hours. The time you have for entertainment is short, or at least made up of short intervals.

At night, for instance, there is an hour or two between supper and bedtime. You can go out; you can go to a neighbor's or you can go to town.

But you generally go to bed; not that you need this extra hour or two of sleep, but because there is nothing entertaining, diverting or informing that you can enjoy without more effort than you care to exert.

If at such times you could put on your slippers, light your pipe, lean back in your chair and listen to good music, a good song or an amusing story, wouldn't it be worth while?

That is the idea back of the Edison Phonograph. It collects the songs of the best singers and the music of the best bands and orchestras and spreads them broadcast throughout the homes of the country.

The EDISON PHONOGRAPH

is a wonderful thing. It seems commonplace because it is no longer new, but it does what no other instrument does. It carries the talent of the world's greatest artists into the home and places it at the disposal of whoever cares to listen.

The Edison Phonograph is Mr. Thomas A. Edison's development of the sound-reproducing idea which he invented. It is made under his personal supervision and has the benefit of all of his improvements.

Among its exclusive advantages are its indestructible reproducing point which never needs to be changed; its long-running, silent steel spring motor, most essential to brilliant work; its sensitive cylinder Records, famous for their sweetness and richness of tone and for their faithful reproduction of a singing voice or the notes of instruments; its large, specially made horn, which brings out every note or word with great force and clearness; and its new Amberol Records, playing twice as long as the regular Edison Records and offering selections heretofore impossible because of their length.



The dealer in the city where you trade will gladly demonstrate the Edison Phonograph if you will call, or send you a catalogue giving styles and prices if you write.

We will send you this book free on request

A home is a home whether it is in the city or the country. We have prepared a handsomely illustrated booklet called "The Edison Phonograph and the Home." It tells what the Phonograph brings into a home—your home

We Want Good Live Dealers to sell Edison Phonographs in every town where we are not now well represented. Dealers having established stores should write at once to

National Phonograph Company
175 Lakeside Ave., Orange, N. J.

different corns. Hence my guess is only as good as yours.

W. F. MASSEY.
CORN GROWING.

I have for some years read every article to which your name was signed, both in the Progressive Farmer and in the Southern Planter, and have been interested and instructed in doing so. Hence I want your advice in a matter that puzzles me. I have a six-acre lot, which was cleared some twenty years ago, a rather heavy loam, with good clay subsoil, from eight to twelve inches below surface. It makes about ten bushels of wheat to the acre (without fertilizer), and grows oats well, but the last two efforts at corn were miserable failures, making not more than ten bushels of unmerchantable stuff per acre. I failed to get the land in peas last year (as I intended), and the growth of vegetation was fine. I have just plowed it in, with a three-horse riding plow, breaking it eight to nine inches, covering all vegetable matter completely, I want to try some again, but would dislike to make another failure. The land is not poor, as shown by the growth of vegetation, but it evidently needs something that corn can use to advantage. Can you suggest what it probably is? I shall appreciate any suggestion.

J. J. WILLIAMS.

Caroline Co., Va.

I would assume from what you say that your land in addition to needing more humus from the growing of legume crops, and feeding them for manure, has become deficient especially in phosphoric acid, and perhaps in available potash, for while the soil in your section is generally rich in potash it is an insoluble silicate, and is very slowly available. Lime will aid in getting the use of the potash, but it will often pay on such soils to use some soluble potash. Land may be strong enough in nitrogenous matter to develop a good stalk of corn, and then fail to make good grain because of the deficiency in mineral matters. Starch is an important material in the formation of the grain, and while there is no potash in starch, the plant needs the presence of potash in order to make the combination of the carbon into starch. Then, while the starch may be formed it is necessary to have a due amount of phosphoric acid, for phosphoric acid is the carrier of starch to the parts of the plant where building of structure is going on, or where starch is being stored for the future use of the plant, as in grain and in tubers of potatoes, etc. You need to practice a regular rotation and get humus on the land through the growing of peas and crimson clover, one a summer crop, and the other a winter crop, and together the best team the farmer can have. If you will get and read my

The Best Fertilizers for Corn

That the yield of corn from the average farm can be greatly increased by intelligent and liberal fertilization has been repeatedly demonstrated. Large crops of good corn result from preparing the land well, using the right kind and quantity of fertilizer, good seed and proper cultivation.

Virginia-Carolina Fertilizers

will greatly "increase your yield per acre" of corn or any other crop. In some cases remarkable results have been obtained.

Mr. C. W. Caruthers of Sumpter County, Fla., writes: "Words cannot express the value of your fertilizer. It is really so far ahead of other companies' goods, that it would not pay anyone to use other brands, were they given free and put in the field. I can prove what I say to be a fact. I made a test on five acres. I used on one half the land your fertilizer and on the other half another company's fertilizer, same grade; the land received the same cultivation every time. *I kept a correct account of the amount of money I got off each half and I got \$300 more from the land on which I used Virginia-Carolina Fertilizer than I did off the other half. I got four times as much corn from the land on which I used your fertilizer.*"

Write today to nearest office of the Virginia-Carolina Chemical Company for a free copy of the new 1909 Farmers' Year-Book or Almanac, full of the most valuable and unprejudiced information for planters and farmers; or ask your fertilizer dealer for a copy.

Virginia-Carolina Chemical Co.

Sales Offices
Richmond, Va.
Norfolk, Va.
Columbia, S. C.
Atlanta, Ga.
Savannah, Ga.
Memphis, Tenn.



Sales Offices
Durham, N. C.
Charleston, S. C.
Baltimore, Md.
Columbus, Ga.
Montgomery, Ala.
Shreveport, La.

**CLARK'S
CUTAWAY
TOOLS**

CLARK'S DOUBLE ACTION "CUTAWAY" HARROW

WITH EXTENSION HEAD is needed on every farm. It will increase your crops 25 to 50 per cent. This machine will cut from 28 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth one foot in a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true.

All other disk harrows have to run in half lap. The jointed pole takes all the weight off the horses' necks, and keeps their heels away from the disks.

We make 120 sizes and styles of Disk Harrows. Every machine fully warranted. Entire satisfaction guaranteed.

Send to-day for free Booklet with full particulars.

CUTAWAY HARROW COMPANY, 861 Main St., HIGGANSUM, CONN.



Agents. Ashton Starke, Richmond, Va.
Jno. H. Bowman & Co., Staunton, Va.



OWN YOUR OWN WATER SYSTEM

The Johnston "BEST" Water System affords you every convenience and comfort enjoyed by people in the city. It provides efficient fire protection, adds value to your property at small expense, and saves out water tax and labor. We deliver anywhere, freight prepaid. Write us for complete literature and let us send you an estimate.

JOHNSTON MFG. CO.

WALNUT, KANSAS CITY, MO.

When corresponding with our advertisers always mention Southern Planter.

book "Practical Farming," you will find this matter of rotation more fully explained than I could in many letters.—W. F. Massey.

FERTILIZER FOR TRUCK CROPS.

I am on a small farm, raise some truck, berries, corn and cowpeas. Land very poor four years ago, when I bought it; truck patch covered pretty thick (1 to 2 inches) with fine manure every year, fields are being manured as fast as possible; no corn-stalks or peas sold off place; stalks all shredded and returned to land in manure. Also haul about 4 times as much from town as make on farm; land is improving; turn under some crimson clover or rye every spring. Have never used commercial fertilizer, but want to try some on truck and possibly a little on corn. Have plenty of poultry droppings. Don't want to bother with more than one kind of fertilizer this year. Have this formula from Southern Agriculturist:

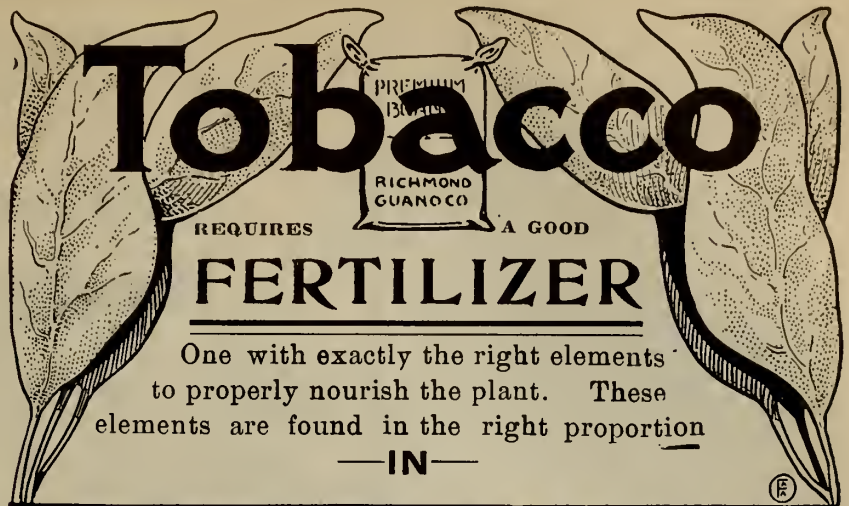
100 pounds poultry manure, 50 pounds bone meal, 25 pounds muriate of potash. I should use it on potatoes, Irish and Sweet, and all root crops. Have found poultry droppings good for beets, carrots, radishes, peas, beans and lettuce; and a neighbor last year put it three inches deep right on his seed potatoes, and raised the best crop he has ever had, even in rich land, and a special potato fertilizer. Can you recommend the above mixture, or a better one?

GEO. W. OSTERHOUT.
Bedford Co., Va.

I had rather not use the poultry droppings on potatoes because of danger of scab. Better use fertilizer only. The fertilizer mixture that has given the best satisfaction among the large growers in Eastern North Carolina is 900 pounds acid phosphate, 100 pounds nitrate of soda, 600 pounds of cotton seed meal and 400 pounds of muriate of potash. The truckers use this at the rate of 1,000 pounds or more per acre.

For sweet potatoes I would use less nitrogen, and would make it 400 pounds of acid phosphate, 50 pounds of nitrate of soda, and 50 pounds of muriate of potash per acre.

One of the best sweet potato growers I know uses stable manure in the furrow, supplemented with the acid phosphate and potash without the nitrogen. Poultry droppings are good for most garden crops. For lettuce I have found that manure and fertilizer both are needed for the best heads. In the bone meal, if raw bone and good, there would be four per cent. of nitrogen added to the droppings, and only a smaller amount of phosphoric acid and potash than potatoes need. The mixture would be too little for an acre. Bone meal, too, is an expensive form in which to get phosphoric acid and less available than that in dissolved rock.



PREMIUM BRAND

"The best tobacco fertilizer I ever used" say hundreds of farmers throughout the South. Have you tried it? If not write for our valuable fertilizer book and name of nearest dealer.

RICHMOND GUANO CO.,
Dept. A. Richmond, Va.

The present type of Stalk Cutter, as used today, originated in our factory over fifty years ago. From that day to the present time, the **Canton** has been the **leading Stalk Cutter on the market**. Stalk Cutters require weight, properly distributed, to do successful work. Beware of light, flimsy machines made to sell cheap. They are dear at any price; you won't be satisfied with them.

In the **Canton** you get **reversible knife heads**, which can be reversed when worn; **pressure springs**, which give the knives greater striking force; **closed wheel boxes**, which exclude all dirt and sand and retain the oil, making light draft. In short, you get the highest type of machine that over 60 years of manufacturing has produced.

Made Either Single or Double Row.

Insist on getting P. & O. Plows, Harrows, Planters, Cultivators, etc., from your dealer. Write for Catalog and Beautifully Illustrated Pamphlet No. 130 **Parlin & Orendorff Co., Canton, Ill.**

Many farmers have an idea that phosphoric acid from bones is better than that from rock, but phosphoric acid is a chemical compound, and is identical, no matter from what source. The only thing that should interest the grower is its availability.
W. F. MASSEY.

BURNING SHELLS FOR LIME.

Can you give me some information in regard to burning a lime kiln of oyster shells. Our land needs lime, but it is so expensive, as it has to come from Norfolk. We can get the shells for fifty cents a wagon load, three miles to haul, or the same as we would have to haul the lime. Would it be cheaper to burn the shells, and would not this lime be as effective as any?
W. T. DEACON.

Spottsylvania Co., Va.

Lay down first a platform of fair-sized sticks. Leave an opening between the two middle logs for a draft hole, and fill it with dry trash, shavings or leaves. Put on a layer of oyster shells a foot thick, then a layer of brush, and carry up a sort of chimney in the center from the draft hole below. Build up the kiln with alternate layers of dry wood and the shells, drawing the pile in towards the top in a sort of conical form. Start the fire at the opening in the base, and when the heap is well on fire cover the whole outside with earth except the chimney in the center. This will burn fairly well, but where shells are so convenient and cheap it will pay to build a regular kiln and burn the lime more completely, or to have a mill and pulverize the shells to a powder, and they will be excellent in that form, and can be used in any quantity without any risk.
W. F. MASSEY.

BEE SUPPLIES.

You will do me a great favor if you will publish in the enquirers' column of your next issue the name of some firm dealing in beekeepers' supplies, other than The A. I. Root Co., and agents, and the name of some paper that makes a specialty of advertising commission merchants. I think it would be a great help to your paper if you were to publish something on bee keeping every month.
READER.

Albemarle Co., Va.

We give below addresses of parties handling bee supplies: Fred W. Muth, Walnut St., Cincinnati, O.; W. T. Falconer Mfg. Co., Jamestown, N. Y. The New York Packer, New York City, will probably serve your purpose. We have already more subjects to handle than we can find space for or we would take up bees.—Ed.

HAIR COMING OFF HORSE.

I have a mare about twelve years

Trinidad Lake Asphalt
 —the time-tested weather-resister used on streets and roofs for over a quarter of a century—is the stuff that makes

Genasco Ready Roofing

Genasco is the stuff that makes your roof proof against leaks and repairs. There is no mystery about what it is made of. You know Trinidad Lake Asphalt—and you know it makes roofing that lasts.

Write for samples and the Good Roof Guide Book. Mineral and smooth surface. Ask your dealer for Genasco. Insist on the roofing with the hemisphere trade-mark, and the thirty-two-million-dollar guarantee

THE BARBER ASPHALT PAVING COMPANY



Largest producers of asphalt and largest manufacturers of ready roofing in the world.

PHILADELPHIA

New York San Francisco Chicago

Lowest Factory Price

Freight Prepaid on 100 lbs. or more

- 35-lb. Roll, 108 sq. ft., 1-ply.. **\$1.35**
- 45-lb. Roll, 108 sq. ft., 2-ply.. **\$1.85**
- 55-lb. Roll, 108 sq. ft., 3-ply.. **\$2.25**

Freight Prepaid on Breese Bros. Rubber Roofing

Write For FREE Sample to Test and Booklet

BEFORE you spend a dollar on roofing, find out all about the old reliable Breese Bros. Rubber Roofing. Absolutely guaranteed waterproof, fire-resisting and long-lived. Made by our own special process of long fibre wool felt saturated in asphalt. Heavily coated on both sides. Cannot crack, wrinkle or leak.

Order now—Get advantage of the extraordinary special price proposition

Look at the prices quoted and remember that they include all freight charges. That price is the actual cost to you of high quality, guaranteed Breese Bros. Rubber Roofing.

You can't buy anything but poor grade roofing at that price from a dealer. Order direct from our factory and keep all middlemen's profits in your pocket. Get high quality goods at a low price. We pay the freight to all points east of the western houndry line of Minnesota, Iowa and Missouri, and north of the south line of Tennessee.

Unless you are already acquainted with the superior merits of Breese Bros. Roofing, let us send you free liberal samples of 1-ply, 2-ply and 3-ply roofing. Put them to every test you can think of and prove to your own satisfaction that Breese Bros. Rubber Roofing is far superior to any other roofing on the market.

Don't think because the price is low that the quality is not as high as the high-priced roofings.

We give the Longest Guarantee

Write for samples or order at once on our guarantee of satisfaction or money back.

These remarkably low prices may never be offered to you again. Don't wait, order now.

THE BREESE BROS. COMPANY
 Roofing Dept. 61 Cincinnati, Ohio

Free Cement and Special Roofing Nails included in each roll. Hammer quickly lays it.



RAFFIA

RED STAR BRAND.

ARROW BRAND.

Bale Lots of 255 lbs. Each.

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

McHutchinson & CO., Raffia Importers,

17 Murray St., New York.

old that is affected in the following way: The hair is coming off in spots on the right side of her neck near the top, not far from the ear. These spots are not raw, but seem to be sore. Will you kindly advise me as to what you think the trouble is, and what to do for it.

A SUBSCRIBER.

Franklin Co., Va.

Apply to the affected parts an ointment made up of vaseline, 1 oz., mixed with one-half dram each of sugar of lead and opium.—Ed.

TIME TO SOW SEED.

I received a catalogue from John A. Salzer, La Cross, Wis., and I selected from it a few pounds of Hairy vetch, Earliest Russian millet, and Teosinte. Will you inform me through the Planter the time and manner of sowing.

B. W. JARVIS.

Stafford Co., Va.

Hairy vetch should be sown in the fall, from September to the end of October, to make its best yield. We have, however, known a crop sown in the early spring to make a fair yield. The Russian millet may be sown at any time from May to the end of July. In this issue in reply to another enquirer you will find advice as to Teosinte. You are too far north for this to do much for you.—Ed.

SEEDING TO GRAIN AND CLOVER.

1. I have a field of fifty acres that was in corn last year. This land is red chocolate soil and will raise fifty bushels of corn per acre, or twenty-five bushels of wheat without any fertilizer. Have been working this land in clover, cowpeas and wheat mostly for seven years; had it in corn last year for the first time for a number of years. I want to sow this land in red clover this spring, say in March. Would you sow an oat crop with the clover? I want to work the land the way to get the best stand of clover and, if possible, cut a good crop of hay this fall. Do you think it would pay me to use any fertilizer, and, if so, what kind? Could I sow any grass with this clover that would make me any more hay? How much seed per acre should I sow?

2. I have a nice piece of bottom land that I expected to sow in grass this spring that was plowed last August. I turned under a heavy crop of green weeds, clover and grass, and this land is in fine condition. I have been thinking of not sowing this field in grass this spring, but of sowing it in cowpeas the first of June, cut them for hay and then order the land and sow to grass in early fall. What do you think of this idea? And please advise the best grasses to sow to make the most hay.

3. Do you think timothy would do well here in Halifax county, Virginia? This land is not very wet and



**"THIS IS
THE ROOFING
THAT NEEDS
NO PAINTING"**

THERE was a time when everybody bought roofings that required painting. It was the regular thing to do. In fact there was nothing else to do, for all roofings were "smooth surfaced" and required painting regularly to keep them from deteriorating.

Now there is Amatite, an improvement over painted roofings, having a *real mineral surface* imbedded in pitch—making a kind of flexible concrete.

This mineral surface needs no painting. The waterproofing material, Coal Tar Pitch, is the greatest enemy to water known. It is the base of many waterproof paints. Only in a paint the pitch is diluted and made into a thin film, whereas the Amatite waterproofing is *solid pure Pitch*—two layers of it. It would take something like a dozen coats of pitch paint to equal in thickness that upper sheet of pitch in which the Amatite mineral surface is buried. And under that heavy sheet of pitch is a layer of wool felt and under that another sheet of pitch, just as thick as the outer one. And below them all is an-

other layer of strong felt. That makes two roofs in one.

If the storms wore away the mineral surface and dug through the pitch and destroyed the felt, they would still be only half way through. And if the weather then removed the next sheet of pitch, you would still have left a final layer of felt—nothing more or less than an ordinary smooth surfaced roofing which could keep off the rain very nicely if painted every year or two.

But as a matter of fact, the weather never gets past that mineral surface securely gripped in its matrix of pitch.

The mineral surface is there to stay. No painting—no bother—no further expenses after the roof is once laid.

We should be glad to send you a free sample of Amatite, and you can see for yourself how much better it is than the smooth surfaced kinds.

Address our nearest office.



BARRETT MANUFACTURING COMPANY

New York Chicago Philadelphia Boston St. Louis Cleveland Pittsburg
Cincinnati Kansas City Minneapolis New Orleans London

Halifax Co., Va., Feb. 10, '09.

I could not farm successfully without the Southern Planter. It is the best paper of its kind I ever read.

P. T. HUPP.

Orange Co., N. C., Jan. 29, '09.

I consider the Southern Planter the best farming journal published anywhere for this section.

S. STRUDWICK.

fairly drained. Would it pay me to use any fertilizer on the pea crop, and what kind? I want to get this twenty-acre field in a meadow and let it stand as long as it will pay.

Halifax Co., Va. N. A. TULLOH.

1. We would sow a mixture of clover, tall meadow oat grass, orchard grass, herds grass (red top and meadow fescue. This will give you a good clover crop the first cutting and good meadow hay for several years. We would sow ten pounds red clover seed and two bushels each of the grass seeds. You might also sow five pounds of alsike clover in the mixture. This continues to produce a crop for several years after the red clover has died out. Sow no grain with the crop and you will be able to cut hay in the fall. This will give you much more hay than clover sown alone—three hundred or four hundred pounds of bone meal per acre will greatly help to insure a crop.

2. The plan you suggest is a better one than sowing in the spring. The early fall—August or September—is the proper time to sow all grass and clover in the South. Sow the mixture above advised and no grain crop with it. Apply two hundred and fifty pounds of acid phosphate before sowing the peas, and bone meal before sowing the grass. If you prepare the land well for the peas you need not plow again for the grass, but cut the stubble and fertilizer into the land with the disc harrow, and in this way make a fine seed bed.

3. Yes; you can grow timothy well enough on good land well prepared in your county.—Ed.

FIG GROWING.

Will you kindly advise me what to do for two fig trees that are growing on my farm here? They grow in bush form, about six feet high, and about thirty or more sprouts or limbs to a bush. Could I dig them up and divide the roots and replant? I have just moved here from Wisconsin and do not understand the growth of figs at all.

CHARLES LIPHE.

Pittsylvania Co., Va.

Figs always naturally grow in this bush form. You should not therefore dig them up, but if you want more trees can get them by taking up some of the side shoots which have rooted, or you can lay these shoots down and cover with soil and keep moist and they will root during the summer. Spring cuttings of last year's growth should be made now and be planted; the summer cuttings of the new wood should be made and planted in August. Figs bear two crops—the first in the spring, the second towards the end of summer. The spring fruit makes its appearance before the leaves. The North Carolina

VICTORIA RUBBER ROOFING.

Waterproof—Weatherproof. Always pliable—never hard or brittle. Any climate, all conditions.

OUR PRICES WILL INTEREST YOU.

SEND FOR SAMPLES.

Patented and Galvanized Roofing Sheets, Roll Tin and Tar Paper.

TIN AND TERNE PLATES, GALVANIZED FLAT SHEETS, ROOFING MATERIALS.



MANUFACTURERS AND JOBBERS
1104 E. CARY STREET
RICHMOND, VIRGINIA.

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

MORPHINISM CURED



No Experiment.

Alcoholism, Morphine and other drug addictions cured in from four to six weeks. 28 years successful experience.

Write for our booklet,
"What do You Drink"

The Keeley Institute.
GREENSBORO, N. C.

Experiment Station has published a Bulletin on Fig Culture, which they will no doubt send you if you ask for it. Write the Director, Raleigh, N. C.

RAISING YOUNG TURKEYS.

How is the best way to handle young turkeys raised by a hen, and how is the best way to feed them, and on what kind of food?

"MARGARET."

Rockingham Co., Va.

Will some of our turkey raisers answer this question? We have several times given our own practice and experience. The enquirer seems to want that of others. Let us have it for publication. "In the multitude of councillors there is wisdom."—Ed.

MIXING FERTILIZER FOR CORN, PEAS, OATS, ETC.

I am all mixed on the chemical proposition. We want to make a few tons of a medium grade of fertilizer that will do for corn, peas, oats and vegetables, etc. If I understand correctly, we need only three chemicals. Is that true? They should be of best grade to make freight cheap. What should I get? What per cent. available in each? Where can I get them, and at what price?

T. H. TRAVIS.

Pittsylvania Co., Va.

In reply to yours of the 16th, I have been for many years working to try to convince the farmers of the South that if they farm right they do not need a commercial fertilizer for every crop planted. With a good rotation in which the legumes, such as peas or clover, come in frequently, a farmer need never buy ammoniated fertilizers at all. It is true that the chief things needed in our old lands are nitrogen, phosphorous and potassium. but the legume crops, properly used, will get us all the nitrogen needed (the fertilizer men put it on their sacks as ammonia, but ammonia is only 85 per cent. nitrogen), and nitrogen is the element needed. Then, in mixing a fertilizer we need to consider both the needs of the plant and the needs of the soil. The only man who can find out what his particular soil is deficient in is the man who cultivates it. He can, by some plot experiments, which I have described in my book, "Practical Farming," find out what he needs to buy and what not to buy. The chemist could not tell you by an analysis of your soil, for he could tell you nothing about the availability of what the soil contains. Peas will not need nitrogen as they can get it from the air, and a mixture of 300 pounds of acid phosphate and twenty-five pounds of muriate of potash will answer per acre for them. The manure made from feeding stock is the best fertilizer for corn, for I never found that commercial fertiliz-

CONGO ROOFING

Backed by a Surety Bond

Hereafter every roll of Congo Roofing which we sell will be found to contain a Bond of the National Surety Co., guaranteeing the durability of Congo Roofing.

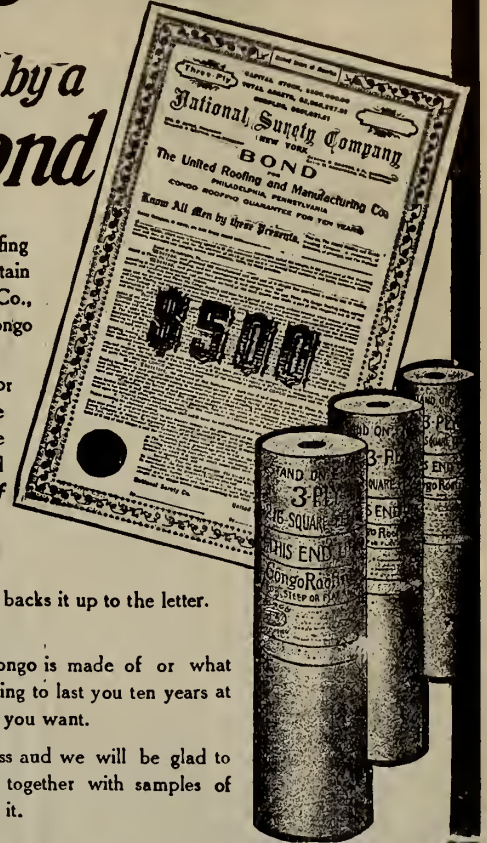
Our 3-ply grade is guaranteed for ten years and provides that if the roofing fails to give satisfactory service during that period, you are entitled to a complete new roof free of charge.

We cannot dodge this guarantee.

The Surety Company's capital backs it up to the letter. It gives you absolute protection.

You don't need to know what Congo is made of or what it looks like; you know that it is going to last you ten years at least, and that is the kind of service you want.

Let us have your name and address and we will be glad to send you a copy of the guarantee, together with samples of Congo and booklet telling all about it.



UNITED ROOFING AND M'F'G. CO.

Successors to Buchanan Foster Co.

512 WEST END TRUST BLDG., PHILADELPHIA, PA.

CHICAGO

SAN FRANCISCO

THE REAL TEST OF ANY ROOFING

Is the number of years it wears. But you ask, how can you tell which roofing will wear the longest before buying? We are going to tell you how. Get several samples of different kinds of roofing. Be sure that one of them is Vulcanite. Put them all to the following tests or any others you may wish.

FIRST, put a live coal on each piece, that will tell which is fire-proof.

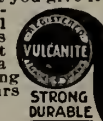
NEXT, put them between cakes of ice or expose them to zero temperature, that will tell how well they stand climatic changes.

NOW, soak them in water over night, that will show how well they turn rain and whether they will water soak.

THEN, immerse them in acid, that will tell whether they will soon become perforated—full of holes and leak.

Send them, twist them, to see if they crack, peel or the surface breaks.

You'll find Vulcanite will withstand any test you give it and be just as fresh, tough, pliable as when first received. When you put it on your roof the real test of time will be even more gratifying. It has quality in it—that's why. It is not only the best roofing, but the cheapest. A postal brings a sample by return mail, also a book about roofing you ought to read. Sold by all dealers, if yours can't supply you write to us.



PATENT VULCANITE ROOFING CO.,
Dept. 71, S. Campbell Ave., Chicago.



Somerset Co., Md., Feb. 9, '09.
The Southern Planter is clean, high-toned and informing to all readers.
DR. E. L. HOFFECKER.

Wolfe Co., Ky., Feb. 8, '09.
I think there is no paper like the Southern Planter and I would not do without it.
L. D. MITCHELL.

ers pay on the corn crop. They will make more corn but the increase will cost as much as it would sell for. For wheat and oats a good fertilizer mixture can be made with 1,200 pounds of acid phosphate, 600 pounds of cotton seed meal and 200 pounds of muriate of potash to make a ton. Use this at the rate of 300 pounds per acre. Acid phosphate has 14 to 16 per cent. phosphoric acid, cotton; seed meal has 7 per cent. nitrogen and small amount of phosphoric acid and potash; muriate of potash has 50 per cent. potash. Prices vary at times and in different places, owing to freight rates. You can get the materials from fertilizer dealers in Richmond.—W. F. Massey.

SAVING COWPEAS.

I want to put out a big lot of peas this year and would like some information as to how the crop is harvested, where one wants to save the peas for seed or sale. Where they raise them in the South in such quantities, do they hand-pick them and then run through a pea huller? Please answer through next month's issue, and oblige, T. R. FRALEY, Fluvanna Co., Va.

The day of hand-picking cowpeas is practically gone never to return. It is too costly. Mow the peas as you would a hay crop and cure thoroughly in the windrow and cock and then haul to the barn. In the winter, after they have passed through the slight sweat which they naturally go through and are thoroughly dried out, thresh them out either with Koger's pea thresher, which you will find advertised in The Planter, or, if you have not this machine, they may be threshed out with the wheat separator run slowly so as not to break the peas. We have also known them to be threshed out with a corn husker and shredder, or they can be beaten out on the barn floor with the old-time flail.—Ed.

OAT SMUT.

Will you please give formula for treating seed oats for smut?

J. A. HILL.

Prince William Co., Va.

Soak the oats for two hours in a solution of Formalin, one pound to fifty gallons of water, or dip the oats in water heated to 133 degrees for five or ten minutes and then spread out to dry as quickly as possible. The water should be kept at 133 degrees by frequently adding hotter water. You can get the Formalin at the drug stores. It is less troublesome to use than the hot water, and both remedies are equally effective.—Ed.

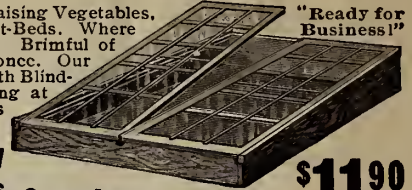
SAWDUST.

When sawdust can be obtained in large quantities without cost, except that of hauling it to the land, has it

Write for FREE BOOK on "HOT-BEDS"
Secrets of Success Growing Early Vegetables Under Glass for Profit and Pleasure

This book gives money-making suggestions on raising Vegetables, Flowers, etc. How to Prepare and Care for Hot-Beds. Where to Locate Them. How to Make Cold-Frames. Brimful of helps and hints. Free for the asking. Write at once. Our Hot-Bed Sash are made of Louisiana Cypress, with Blind-Mortised, Double-Shouldered Joints. No rotting at joints! Our prices are 50% less than at local dealer's.

"Ready for Business!"



Hot-Bed Sash
 Size 3x6 \$1.69
 1 1/2 inch Glazed with 6-in. Glass.
 Dealers' Price \$3.50

Start Hot-Beds Now and Have Fresh Vegetables Weeks in Advance of Others

No time to lose! The earlier your vegetables are ready, the more they are worth. Send today for "Hot-Bed Secrets" Book

Cut Prices on Hot-Bed Sash

- Size 3x6 ft., 1 1/2, 6x10 Glass . \$1.69
- Size 3x6 ft., 1 1/2, 6x10 Glass . 2.08
- Size 3x6 ft., 1 1/2, 10x14 Glass . 1.75
- Size 3x6 ft., 1 1/2, 10x14 Glass . 2.14
- Size 3x6 ft., 1 1/2, with Bar, 10x14 Glass 1.87
- Size 3x6 ft., 1 1/2, with Bar, 10x14 Glass 2.46

Glazed with Double-Strength Glass, add 20c net to above prices.

Send Quick for FREE Book

Be the first in your neighborhood to have fresh vegetables for your table. We make prompt shipment.

Complete Outfit No. 1, \$11.90

Including Sash, Frames and Sub-Frames

Consists of our regular Hot-Bed Sash and complete frames (for above ground) and Sub-Frames (for the pit). Frames are of Cypress. Each part cut to exact size. Angle irons with holes punched for screws. Here are the items:

2 Glazed Hot-Bed Sash, 3x6 feet, 1 1/2, 6-inch glass; 1 Cypress Frame for 2 Sash; 1 Sub-Frame, all carefully crated for shipment **\$11.90**

For Double-Strength Glass, add 40c net to price of each outfit. Hot-Bed Frames, \$5.70 each. Sub-Frames, \$4.25 each.

Don't fail to send at once for the best book on "Hot-Beds" that ever came off the press. It points the way to PROFITS.

Gordon-Van Tine Co., 1542 Case St., Davenport, Iowa

WHEN YOU LAY

VULCANITE ROOFING

over old shingles, or in fact, over any old or new roof, you put an end to your roof troubles for a longer period than is possible with any other roofing. Vulcanite Roofing is made by a process which produces a hard, flinty surface that heat, cold, fire, water, nor acid can phase. That's why it resists all the elements of the weather better and retains its "life" years longer than ordinary roofings. It does not warp nor dry out dead, and become like tinder as many do. It has body, substance, quality, "life"—which time proves it is the cheapest roofing you can put on. Our free booklet tells how to test roofings, how to tell which is best before you buy. Write for it and we'll send a liberal sample of Vulcanite. We are glad to have you test it—compare it with any other. A postal brings both. If your dealer does not sell Vulcanite we'll see you are supplied. Send us his name.

PATENT VULCANITE ROOFING CO., Dept. 71, So. Campbell Ave., Chicago.

Matthews' "NEW UNIVERSAL" Garden Tools

6 GOOD TOOLS IN ONE

Seeder, marker, hoe rake, plow, cultivator. Single or double wheel. Adjustments easily made. For planting and all kinds of cultivation.

6 Styles Seeders
 Opens furrow, drops in plain slight covers marks.

Double or Single Wheel Hoe
 Cultivator, Plow, Rake. Changes quickly made. Cultivate between or beside the rows. Any depth, any width.

Hand Wheel Plows
 Rear wheel gives steadiness & ease.

Note High Arch and Plant Guards.
 Bent Oak Handles on all Tools.

Send for Free Booklet giving full description of implements.

AMES PLOW COMPANY, Dept. 56. BOSTON, MASSACHUSETTS
FOR SALE BY GRIFFITH & TURNER CO., BALTIMORE, MD.

AGENTS WANTED

SPRING TOOTH HARROW ON WHEELS

Lightest Draft Harrow made. Adapted to any soil. Saves a half-horse power. Seat adjusted without bolts. Used either as walking or riding harrow. Teeth controlled by lever. Easily cleared of rubbish. Made of very best materials. Awarded Gold Medals at St. Louis World's Fair. Write for free catalogue describing this harrow.

THE HENCH & DRMGOLD CO., Mfrs., York, Pa.

You will be responsible AT HARVEST TIME If things don't go right

Right then at harvest time are you to know success or failure for the year.

Every hour of rapid, smooth, uninterrupted work will pile up your reward.

Every hour of delay, of slow, hard going, will decrease that reward, fill you with anxiety and rob you of profits that you have justly expected and built on.

You will have enough responsibility at harvest time without having to think of your equipment, upon which the success of the year will largely depend.

Get that heaviest part of your responsibility off your shoulders now.

Go over your equipment before the very busy season starts. Decide what you will need to do the work right.

Then make your selections carefully.

Start now. You will never have more time between now and harvest.

And you want time for choosing harvesting machines. There is too much at stake to allow yourself to be pushed to a hurried decision.

For it is not only a matter of choosing efficient, dependable machines, but the machines that are particularly adapted to your needs, the machines that you know you can do the most work with under your particular conditions. For this reason the best start you can make in your investigations is to examine the International line. Because hundreds of thousands of farmers in all lands have proved the efficiency of every one of these machines, you can't go astray on quality. And, besides, you have so wide a choice that you are sure to find the machine that just suits your ideas and your requirements in every way under one of these names:

CHAMPION	McCORMICK	OSBORNE
DEERING	MILWAUKEE	PLANO

Choose one of these and be sure—sure of top-notch efficiency, simplicity, dependableness, durability.

Choose one of these and be sure of the most for your money, the biggest returns on your investment, the most profit from the crops you harvest.

Choose one of these now and feel secure in your harvest expectations during the coming months of rush and hard work.

The question of price must interest you, but only as a secondary consideration.

The difference in price between the cheapest, hap-hazard, flung together machine and a perfect one is an insignificant item compared to the results at stake.

The smooth, rapid, uninterrupted perfect work at harvest time is something no man can afford to jeopardize. And he cannot afford to put himself in danger of long delays in case of accident. He wants a machine that can be fixed quickly and fixed right, in case anything should happen.

With one of the International line you are safe. The extra parts are always at hand at the nearby dealers and the parts always fit.

But the main reason why you should select from one of the six leading lines is because nothing goes wrong without mighty good cause.

The machine will not stumble over its own mechanism because—The principle of construction is right—The materials are right—The workmanship is right. And each has been tested and retested under far more trying conditions than will ever be encountered in the regular course of work.

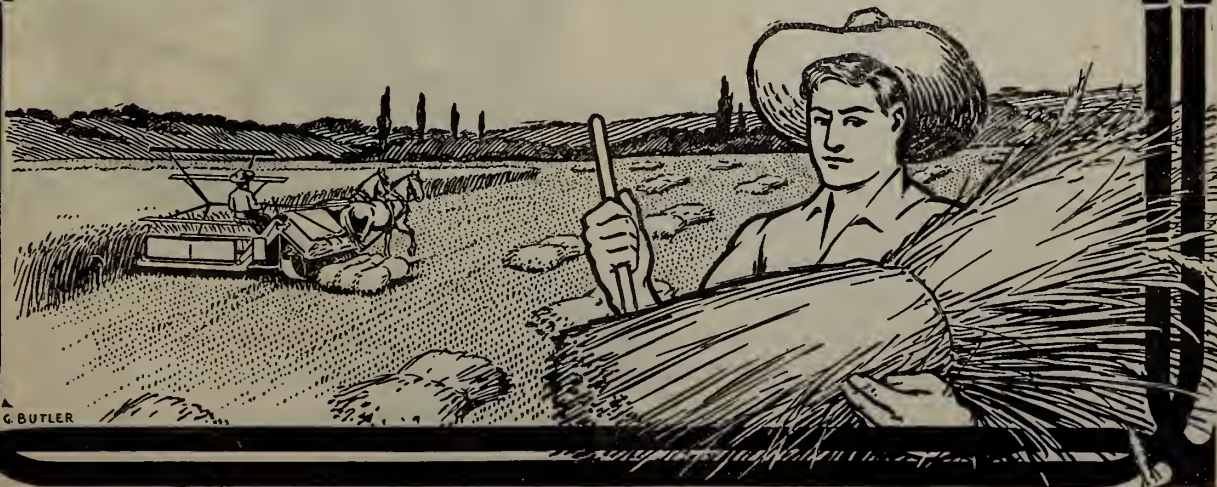
See the International dealer at once. Take your choice. The quality is the same in all—the best possible. If you don't know an International dealer, write us and we will give you the name and address of the one nearest you.

Don't experiment on binder twine either. Get one of the six perfectly dependable brands of twine and be sure. Choose Champion, McCormick, Osborne, Deering, Milwaukee or Plano—in Sisal, Standard, Manila and Pure Manila brands.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.

(Incorporated)

International line:—Binders, Reapers, Headers, Header Binders, Corn Binders, Corn Pickers, Huskers and Shredders, Corn Shellers, Mowers, Hay Tedders, Sweep Rakes, Hay Rakes, Hay Loaders, Hay Stackers, Hay Balers, Feed Grinders, Knife Grinders, Cream Separators, Gasoline Engines, Pumping Jacks, Manure Spreaders, Weber Wagons, Columbus Wagons, New Bettendorf Wagons, Auto Buggies and Binder Twine.



in itself any manurial value? The sawdust in question being made of white and black oak, poplar, etc., but principally of wood pine, and old field pine. Has it value as a fixer of ammonia when used as bedding for horses, cattle and hogs or when spread under the roosts or in the scratching pens in chicken houses and then spread on and plowed in poor, thin, exhausted land with a heavy red clay subsoil? Would it serve as a mulch in the vegetable garden and for small fruits, being a non-conductor of heat? There are large quantities of this material in this section for which there seems to be no present use. It might be burnt and the ash utilized for plant food, but that, it appears to me, would be a waste of its other more valuable constituents. H. W. WILLIAMS.

Louisa Co., Va.

Sawdust of any kind is not worth the hauling for any purpose whatever in connection with farming. It has no manurial value and is often injurious used only as a mulch, having a tendency to sour the land. The best thing to do with it is to burn it. There is a small quantity of lime and potash in the ashes and the deleterious matter is destroyed by the burning.—Ed.

ALFALFA.

I would like to have any information you can give me on alfalfa. I have a farm in Campbell county, Virginia, which is of a deep red soil. I want to try and get alfalfa on it. Tazewell Co., Va. A. J. DOSS.

You should begin to prepare the land for the alfalfa this spring by plowing it deeply and then apply from one to two tons of lime per acre and work into the soil. The next thing is to get rid of the weeds, as weeds and alfalfa cannot get along together. The best way to get rid of these is to sow no crop on the land this spring, but let it sprout all the weed seed in it through the summer months. As soon as one crop of weeds has started to grow harrow it over on a hot, dry day and thus kill the crop and leave it to start another one. Each crop as it grows should be killed in the same way, and by August you will have cleaned the top six inches of weeds. Those below this depth will not trouble you. In August apply 400 pounds of bone meal per acre and harrow in, at the same time applying 400 or 500 pounds of soil from an old alfalfa field if you can get it. If not, then buy inoculated alfalfa seed and sow at the rate of twenty-five pounds to the acre and harrow in lightly and then roll and you should get a stand. When it is five or six inches high cut it with the mower and let it lay as a mulch on the land. If it gets as high again by September, cut it

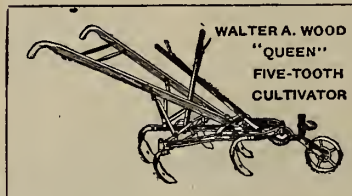
GOOD TOOLS ARE SURE TO BRING GOOD RESULTS

After you have spent time and money planting, you want the best results. This means careful cultivation of the growing plants. You can

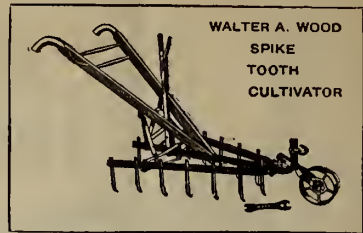
WALTER A. WOOD CULTIVATORS

seat for the double tooth-standards. They are correctly built and have a wide range of adjustment. We show two of our models. The "Queen's" frame is I-beam steel; strong, light and a snug

They are correctly built and have a wide range of adjustment. We show two of our models. The "Queen's" frame is I-beam steel; strong, light and a snug seat for the tooth-standards. These standards form a solid seat for the tooth and allow up and down adjustment of tooth. Hillers and listers can be set in any position. The frame is absolutely rigid and the handles cannot loosen. The Spike-tooth Cultivator teeth have two styles of points and are reversible. You can see these cultivators at our nearest dealer's. Write us if you do not know his address. We'll also send our illustrated catalogue.



WALTER A. WOOD
"QUEEN"
FIVE-TOOTH
CULTIVATOR



WALTER A. WOOD
SPIKE
TOOTH
CULTIVATOR

Walter A. Wood Mowing and Reaping Machine Co.

BOX 312 HOOSICK FALLS, N. Y.

No Connection with any Trust or Combination

Branch Office: 1422 East Main Street, Richmond, Va.

Evan's "Model" Disk Corn Planter for Corn and Peas.

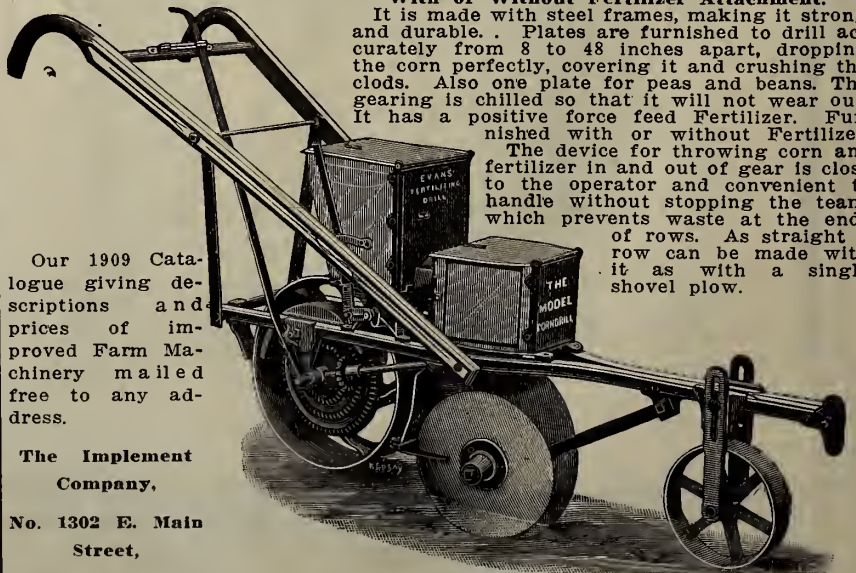
With or Without Fertilizer Attachment. It is made with steel frames, making it strong and durable. Plates are furnished to drill accurately from 8 to 48 inches apart, dropping the corn perfectly, covering it and crushing the clods. Also one plate for peas and beans. The gearing is chilled so that it will not wear out. It has a positive force feed Fertilizer. Furnished with or without Fertilizer. The device for throwing corn and fertilizer in and out of gear is close to the operator and convenient to handle without stopping the team, which prevents waste at the ends of rows. As straight a row can be made with it as with a single shovel plow.

Our 1909 Catalogue giving descriptions and prices of improved Farm Machinery mailed free to any address.

The Implement Company,

No. 1302 E. Main Street,

Richmond, Va.



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.

again and then leave what further growth it may make for a winter cover.—Ed.

SHELL MARL.

I would like to have your opinion as to whether shell marl ground fine would answer the purpose of lime on land that needs liming. Have a good deal of this marl and can easily provide for grinding it, therefore, am anxious to know just what you think of it. C. H. WATTERSON.

Bladen Co., N. C.

Yes. It will be slow in action, but lasting in its results.—Ed.

TIMOTHY.

Please advise me about a piece of timothy that was sown in fall of 1907. The land is light loam on top with clay subsoil. will bring from four to five barrels of corn to the acre. The timothy came up well and has now a good stand, but it does not grow. What I want to know is what you would advise me to do. I cannot put stable manure on it.

H. T. GARNETT.

King George Co., Va.

Give the field a top dressing of nitrate of soda in April after growth starts, at the rate of from 100 to 200 pounds to the acre. This will help it quickly. Sow when the grass is dry, broadcast. It is too late now to apply manure.—Ed.

TILE DRAINAGE—ORPINGTON FOWLS.

Please outline in the Southern Planter the manner of laying tile for draining swampy or wet land.

1. What space should be left between the joints of the tile to admit drainage? Should these joints be covered with broken pieces of tile or plank? How to attach laterals to the mains? Should the dirt be firmed on the sides of the tile to hold them in place or would it be sufficient to throw the dirt loose in on the tile? Is potter's clay good enough to make a tile of reasonable duration? Give full and complete particulars for construction, etc.

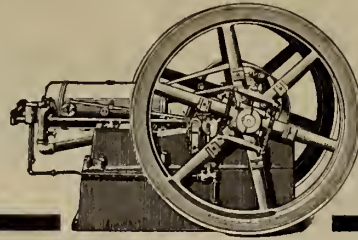
2. Give the origin and descriptive characteristics of the Orpington fowl. Their size, egg producing quality, hardness, quality of flesh. How will they compare with the Barred Plymouth Rock? JNO. W. SWADLEY.

The Planter is truly the farmer's friend.

Sullivan Co., Tenn.

The subject of tile draining is too large a one to be dealt with fully in reply to a query. In this issue you will find an article dealing in some measure with the question. Shortly, we may say that the object of tile draining is not to remove the top water or that falling on the land, but

Power that Pays for itself



There is a long line of machines that save labor and make money for the farmer. But you are not operating them to the best advantage if you do not have a reliable power.

Cream separators, feed cutters, corn shellers and wood saws are valuable machines for the farm, but no one of them is complete in itself. Each requires a power to operate it.

Here is the great advantage of having one of the simple, powerful, dependable I. H. C. gasoline engines on the farm.

An I. H. C. engine is not a machine for just *one duty*, like a churn or a pump. It is a machine of many duties. It enables you to operate all other machines to best advantage.

Its duties extend all through the year and it is used almost every day in the year.

There is corn to shell, feed to cut, water to pump, wood to saw and many other jobs, all of which you cannot do profitably by hand.

You *must* have power of some kind. An I. H. C. engine saves you a world of turning and lifting by hand, and because it is so well adapted to so many uses, you will find it a great improvement on old fashioned tread mills, horse power, etc.

It costs but a few cents a day to operate an I. H. C. engine. Many times it saves the wages of a man, and in some work the wages of a number of men. Estimate what it costs you for extra help at \$1.00 to \$2.00 per day because you have no power, and you will see how rapidly an I. H. C. engine pays for itself.

Besides, these engines do work that you cannot do at all by hand—running the cutter, shredder, threshing machine, etc.

I. H. C. engines are strong, simple and easy to understand. We know the design to be of the best, and we know that every detail of construction is correct. This is proved to our own satisfaction by giving every engine a thorough working test before it leaves the Works. This guarantees that the engine comes to you in perfect working condition, and you have a right to expect many years of efficient service from it.

I. H. C. gasoline engines are designed to utilize the greatest amount of power from the fuel consumed. Every line of the engine is symmetrical. It looks substantial and is substantial without being clumsy or too heavy.

The I. H. C. Line

I. H. C. Vertical Engines—made in 2, 3 and 25-horse-power

Horizontal (portable and stationary) in 4, 6, 8, 10, 12, 15 and 20-horse-power

Gasoline Tractors—in 12, 15 and 20-horse-power

Famous Air-Cooled Engines—in 1 and 2-horse-power

Pumping, Spraying and Sawing outfits in various styles and sizes.

Call on the International local agent, inspect these engines and secure catalogues and full particulars, or write direct to us.

International Harvester Company of America, Chicago, U. S. A.

(Incorporated)



"A Kalamazoo Direct to You"

TRADE MARK REGISTERED

We have more than 100,000 satisfied customers in more than 17,000 cities, villages and towns in the United States who have each saved from \$5 to \$40 by buying a Kalamazoo stove or range on

360 DAYS APPROVAL

direct from our factory at actual factory prices. No stove or range has a higher reputation or gives better satisfaction. You run no risk. You save all dealers' profits. We pay the freight.

Send Postal For Catalog No. 400

and see list of towns where we have satisfied customers.

Kalamazoo Stove Company, Mfrs., Kalamazoo, Mich.

Our patent oven thermometer makes baking and roasting easy.

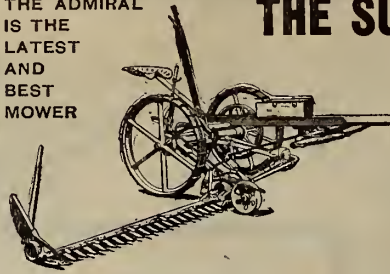


to drain off the underground water or, as it is technically expressed, to lower the water level of the land. There is under all land, except land on rock, a substratum of water, which stands constantly at a certain level. When this is augmented by water falling on the land, the water fills up to near the surface of the land and thus drowns out crops and makes the land untillable until it slowly drains away through natural channels. The object of putting in tiles is to provide artificial channels to carry off this substratum of water and lower the natural water table. When this is done the water falling on the land will quickly find its way below and is carried off, and the distance between the drains to be put in depends on the lay of the land, the water to be carried off, and the nature of the subsoil. We have put in drains as close as seven yards apart and as wide as fifteen yards apart and secured good drainage. Better put them in too close than too wide apart. The depth at which the tiles should be laid depends on the natural water level of the land. They must go down into the stratum of soil where the water naturally flows, or they will do no good. Usually the drains should be cut from thirty to thirty-six inches deep. They should be cut wide enough at the top for a man to work in them and the sides slope until at the bottom of the ditch they are only wide enough to lay the tile in. There are spades made for this purpose, wide ones and narrow ones.

The bottom of the ditch must be scraped out perfectly level and with an accurate and regular fall all the way to the outlet, so that water will always run in them. The tiles are laid just butted one against the other. The water gets in at the joints and through the tile. You can pour water through a brick, you can see this illustrated in most filters, where the filtering substance is usually a porous stone or brick. When the tiles are laid fill in the bottom soil taken out right on to the tiles, and the closer it settles down on them the better the drain will dry the land. The laterals are joined with the main drain by merely knocking a hole in the main or by putting the lateral into the joint of the tiles and covering the junction with a flat stone. Any good clay will make tiles.

2. You had better get the history of the Orpingtons, which is published for this information. The breed was, we believe, built up from Cochins and Dorkings and probably some other cross, but we have not the information at hand just at the moment to be positive on this. We have this breed now and can say that they are good layers, hardy, and fine table birds. We prefer them to the Plymouth Rocks, but this is a matter of fancy.—Ed.

THE ADMIRAL
IS THE
LATEST
AND
BEST
MOWER



THE SUCCESSFUL FARMER

KEEPS UP
TO DATE

On Farm Machines

The great advance in farming methods has kept pace with the improvement of farm machines. The most successful farmers have always been ready to consider new ideas and better machines. Farmers never have been more progressive than to-day. That is why the Admiral mower has so quickly established itself in their favor. They recognize the great value of its features, chief among which are: Powerful keen cutting apparatus, easy foot-lift, increased tractive power without corresponding increase in weight, not forgetting the "floating frame," genuine underdraft, uniform tilt, and all the other features that have made Walter A. Wood mowers famous wherever grass is grown. If you are going to buy a new mower this year, investigate the latest,—The Admiral. If you don't know our nearest dealer, write us for his address, also for catalogue.

**WALTER A. WOOD MOWING
AND REAPING MACHINE CO.**

BOX 712 HOOSICK FALLS, N. Y.

World's Oldest and Largest Independent Harvesting Machine Concern

Branch Office, 1422 East Main Street, Richmond, Va.

Get Our Reduced Factory Prices On Quaker City Feed Mills

**Free Trial No Deposit and
Freight Paid**

For 40 years Quaker Quality has been the standard in feed grinders. And recent improvements make them still better. But the price to you is greatly reduced because our new direct selling plan gives you the benefit of jobbers' and dealers' profit.

11 Sizes—22 Styles—From Hand Power to 20-H. P.

Don't risk your money on claims. Let us send you a Quaker City without cash or deposit in advance. Then you can see that it grinds fastest, does best work, needs less power and less attention. Try it on ear or shelled corn—any grain, separate or mixed, any grade of meal from coarsest to finest. Grinds soft and wet corn just as well as dry corn.

Write for Free Book, prices, guaranty, free trial and prepaid freight offer. One of the Quaker City Mills will meet your requirements. Specify Feed Mill Catalogue.

The STRAUB COMPANY

3737 Filbert St. W PHILADELPHIA, PA.



The Standard
For 40 Years

CLARK'S REVERSIBLE CUTAWAY SULKY DISK PLOW

The Only PERFECT REVERSIBLE
SULKY DISK PLOW MADE.



Plow When Turning to Right.

CUTAWAY HARROW CO., 861 Main St., Higganum, Conn.

**CLARK'S
CUTAWAY
TOOLS**

Is controlled at the end of the furrow by a foot trip lever which releases the Turning Disk, so that when the horses are brought in good position to continue plowing it inter-locks itself without any further use of levers or efforts of the driver. Can be used as a right or left hand plow and is a perfect success. Is mounted on carrying wheels and is as light as is consistent with durability. The best results are obtained in plowing fallow land for the Cutaway blades shake out the edge of the furrow so that it isn't necessary to harrow the land after once ploughed with this plow. Send today for FREE Booklet with full information.

Agents, Ashton Starke, Richmond, Va.

Jno. H. Bowman & Co., Staunton, Va.

CORN GROWING.

I notice in your journal several articles about planting corn. I am plowing this month fifty acres that have been idle for ten years. I am turning it with a two-horse plow and want to plant it in corn about May first. My idea is to cut it about twice with a disc harrow. The land has a light gray soil with a clay bottom. The gray soil is not more than two or three inches deep. I want you to advise me what is the best fertilizer for this, say sow 200 pounds with a wheat drill and then about 50 pounds with corn drill when planting. Surry Co., N. C. E. F. McNEER.

The more you work the land with the disc after it is plowed, and the better will be the yield. Twice is not enough to get best results. Work in 250 or 300 pounds of acid phosphate per acre applied with the grain drill when preparing the land. This will be better than applying in the corn drill when planting.—Ed.

POTASH—A TECHNICALITY.

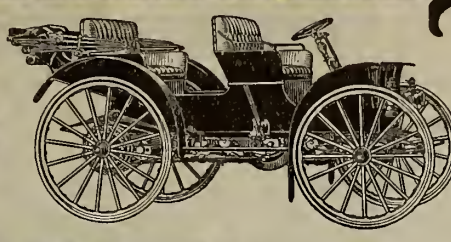
In Mr. Hicks' valuable papers on fertilizers I note he uses the chemical formula K_2CO_3 for the potash in fertilizers. This is the formula of real potash or potassium carbonate, such as exists in plants, but in stating the analysis of fertilizers the oxide of potassium (K_2O) is considered as a basis of reference for all potash salts existing in plants, as sulphate, muriate and carbonate of potash. It is merely for the sake of consistency that I call attention to this matter. ROSEMONT.

CANADA PEAS.

Referring to Professor Massey's answer (February Planter) to my inquiry concerning the value of Canada peas as green manure for tobacco, Professor Massey seems to think this legume unsuited to our Southern conditions, at least, that it is not so well adapted as crimson clover. In the latter particular I also am inclined to think the clover preferable, but where planting has been deferred till late winter or early spring I am satisfied that the peas are far more satisfactory. I have had splendid growths of both the clover sown in the fall and of the peas sown in February, and when these are planted at this season there is but little difference as to the amount of green manure they will produce. The peas, however, are by no means hardy here and must be planted after danger of severe freezes is over. The cold wave February first absolutely destroyed my crop. ROSEMONT. Williamsburg Co., S. C.

TOBACCO FERTILIZER—GREEN CORN—IMPROVING LAND.

As the writer has no agricultural experience, this being his first year on the farm, the following questions



**THE CAR
FOR
BUSINESS
OR
PLEASURE**

The International Auto Buggy has come to take the place of the farmer's carriage or runabout and the driving team.

It is carriage and team all in one. And anybody who can be trusted with a team of horses can operate it with perfect safety.

The Auto Buggy is emphatically the vehicle for country road travel. It has every advantage that the family carriage or runabout has and many advantages which these vehicles do not have.

It is always ready to go anywhere. Rough, muddy or hilly roads do not impair its usefulness.

When there is a trip to town to make, or other errand to do, it is not necessary to take the team from the plow or to stop the farm work.

It does not require to be watered or fed.

It does not get "fagged out" as the horses do on a long journey.

You can go at a faster clip than you can with your driving team and you can keep it up all day long.

Perhaps the greatest feature about the International Auto Buggy is its simplicity and easy control. There is nothing complicated about it and any member of the family over ten years old can learn to run it in a very short time.

The Auto Buggy has solid rubber tires. There are no tire troubles. It is operated by a thoroughly reliable air-cooled gasoline engine. It is propelled by applying power to both rear wheels. It is chain driven. There are no cog wheels to break and put it out of action.

The Auto Buggy is a rare combination of both a pleasure and a business vehicle. The springs and comfortable seats make it easy riding. Passengers are protected from flying mud and water, no matter how fast the Auto Buggy is speeding. The rear seat and top may be removed, and the Buggy turned into a handy, light-running and capacious carrying vehicle. A ten-feed mechanical oiler makes oiling an easy matter. The tread is the same as that of a standard wagon. The seven gallons of gasoline which it carries is sufficient for a journey of 75 to 100 miles, making surprisingly cheap as well as pleasant transportation for its load of passengers.

The following letter is one of many we are receiving from all over the country, setting forth the complete satisfaction that the International Auto Buggy is giving:

New Brunswick, N. J., November 30, 1908.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, Philadelphia, Pa.

Dear Sirs: You will undoubtedly remember that I placed an order with you the past season for two Autos, one of which I have been using for the past six months, and I have certainly given it some of the most severe tests that a motor car could be put to, and it has overcome all obstacles and meets my approval in every respect. I have driven the car up and down steep hills, through mud and sand, and the power of the engine and the excellent control one has of the car make it reliable and dependable at all times. I also like your high wheels, solid tire, and for my own use in the real estate business and for a selling agent, I am convinced that your cars are the best of their kind on the market today.

Yours truly,
ALBERT SERVISS.

Take the matter up with the International local agent and get a catalog and further information. Or write direct to the home office.

International Harvester Company of America, Chicago, U. S. A.
(Incorporated)



**Just Write the Davis Boys
For a Catalog and Prices Today**

They will send it by return mail post-paid and you will be surprised at the low, reasonable prices they are asking for their improved 1909 model



We Manufacture the Davis

DAVIS CREAM SEPARATOR

direct from their large factory. They'll quote you straight Wholesale Factory Prices if you write today and answer this ad, and save you 20 to 50% if you want to buy a standard, up-to-date cream separator. Note cut of new machine in this ad. It's a little beauty with the small, wonderful, cone bowl, always in balance because it's made so true it balances itself. Therefore bound to run easier, more easily regulated to skim close and produce heavy or thin cream. Low supply can, large capacity, simple enclosed gearing, easy running, easy to clean. It's made of best materials and fully guaranteed. They prepay freight and guarantee safe arrival at your nearest depot. Say on a postal or in a letter right now. "Send me your Money Saving Catalog No. 126" Davis Cream Separator Co., 588 North Clinton St., CHICAGO, U. S. A.

AGRICULTURAL LIME.

from
MANUFACTURER TO FARMER CHEAP
No Agents
Lime Screenings and Run of Kilm.

TAZEWELL WHITE LIME WORKS, - - - - - No. Tazewell, Va.

and answers to them will benefit him and some one else:

1. What are the proper ingredients and how much to apply for a fertilizer for growing Dark Export tobacco? Land is medium chocolate loam and the first year cultivated.

2. I have one acre I want to plant in early garden corn to market green. The land has not been cultivated for three years and has about one-half a stand of volunteer clover and a heavy coat of dry weeds. What will be the best fertilizer to insure a quick growth? I have no barn yard manure to put on same. Land is gray, slightly gravelly, red subsoil.

3. I want to sow cowpeas on all corn land at last working of corn, plow vines down after corn is gathered and sow in wheat and clover. Please advise what fertilizer to use and how to use to get best results on all crops and land looking to the permanent improvement of the land. Should I let the clover stand or cut one crop and turn the sod for another winter grain crop?

4. Will it pay best for a person not knowing how to mix and what proportion to use to try mixing his own fertilizers, or buy the ready-mixed kinds?
W. S. CARRINGTON.

Amherst Co., Va.

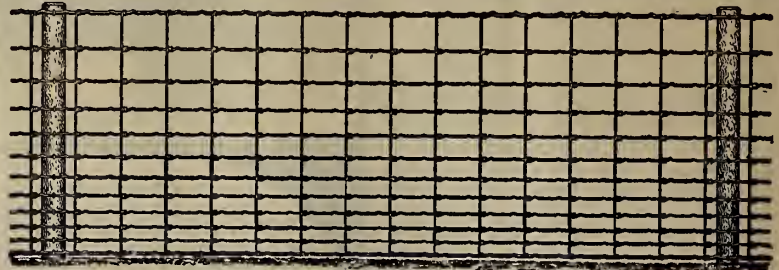
1. In the article "Work for the Month," in this issue, you will find advise on this subject.

2. Plow and work the land repeatedly with the disc harrow, cultivator and roller to secure a fine, deep seed bed and to secure the warming and aerating of the land. Apply 300 pounds of acid phosphate per acre and work into the land whilst preparing the seed bed. When the ground has become warm plant the corn and apply with the drill when planting a mixture of 100 pounds of nitrate of soda, 50 pounds of muriate of potash, and 200 pounds of cotton seed meal per acre; or, if you have hen manure, apply this in the rows or hills liberally.

3. We would not advise you to attempt to grow wheat and clover following the corn on land which is not rich. It will only be a failure. Sow the peas in the corn, apply 250 or 300 pounds of acid phosphate per acre when preparing the land for the corn. This will help the corn and ensure a pea crop. After cutting the corn cut the peas into the land with a disc or culaway harrow and then sow twelve pounds of crimson clover and one bushel of wheat, oats and rye mixed per acre and thus continue the improvement of the land by keeping it covered during the winter and providing a green fallow to turn down in the spring. Follow this crop with cowpeas for hay, applying acid phosphate again and then you may possibly succeed with wheat, but do not sow clover or grass with it. When the wheat is harvested then prepare

Stands Like a Stone Wall

Turns Cattle, Horses, Hogs—Is Practically Indestructible



AMERICAN FENCE

Buy your new fence for years to come. Get the big, heavy wires, the hinge joint, the good galvanizing, the exactly proportioned quality of steel that is not too hard nor too soft.

We can show you this fence in our stock and explain its merits and superiority, not only in the roll but in the field. Come and see us and get our prices.

Our complete Catalogue of Improved Farm Machinery sent to any address free.

THE IMPLEMENT COMPANY,

1302 E. MAIN ST.,

RICHMOND, VA.

STRONGEST FENCE MADE



When you buy our High Carbon Coiled Spring Fence you buy strength, service and durability combined. Twenty years of experience—hard knocks, has taught us that the best fence is made from heavily galvanized Coiled Spring Steel Wire

CLOSELY WOVEN FROM TOP TO BOTTOM

Our Fence is so closely woven that small pigs cannot "wiggle" through it. So strong the vicious bull cannot "faze" it. We have no agents. We do not sell to dealers but sell direct to the user

AT WHOLESALE PRICES FREIGHT PREPAID

Coiled Wire provides for contraction and expansion and prevents sagging between posts. Every pound of wire in our fence is made in our own wire mill from the best high carbon steel. We give

30 DAYS FREE TRIAL

That our customers may be sure they are satisfied. We make a full line of FARM AND POULTRY FENCE. Our Wholesale Prices will save you money. Write today for our 40 page free Catalog.

GOILED SPRING FENCE COMPANY, Box 52 Winchester, Indiana.

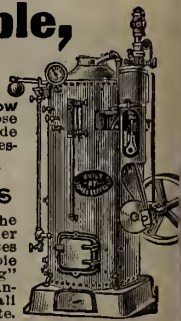
The Best Power Service, with Less Worry, Less Trouble, Less Expense



There's no guessing or experimenting with steam. You know you will have power when you want it. Close your ears to the extravagant claims made for new style powers long enough to investigate the old reliable

LEFFEL STEAM ENGINES

They are the engines for planters. All the efficiency and much more reliable than other powers. They furnish steam for many uses which gasoline engines cannot do. No trouble about "ignition," "the sparker," "cooling"—no failure to start, nothing you cannot understand. Sizes and styles adapted to all uses. Write for free book and investigate.



JAMES LEFFEL & COMPANY, BOX 213, SPRINGFIELD, OHIO

the land well and apply 30¢ pounds of bone meal per acre and sow clover and grass in August or September. An application of one ton of lime per acre when preparing the land for the corn crop or when cutting in the pea crop would greatly help to improve it both physically and mechanically and help to secure a catch of the clover and grass.

4. You will get much better results from mixing your own fertilizer as in that way you know what you are applying and if you follow our columns closely you will find full instructions as to what to mix for the different crops. What your land mostly needs to make it productive is humus—vegetable matter—and to secure this you want to grow all the leguminous crops you can and use only plain acid phosphate to ensure a growth of these. This is cheaper than buying the mixed fertilizers and is the basis of all the fertilizer you may need. The growing of these crops will give you feed for stock and these will make you manure, which is better than all the fertilizer you can buy for the staple crops, especially when balanced up with acid phosphate to supply the phosphoric acid which it lacks.—Ed.

DRIED BLOOD.

Where can I get dried blood, and what will it cost in small quantities? Nash Co., N. C. W. M. PEARCE.

You can get this from the Richmond Abattoir, whose ad. you will find in The Planter. Ask them for prices.—Ed.

HOT-HOUSE LAMBS.

I wish you would write an article on raising hot-house lambs. My ewes never drop their lambs until March. My sheep are Southdowns, crossed with Shropshire.

Mathews Co., Va. J. F. MORRIS.

If you want to raise hot-house lambs you want to have a flock of ewes that will give you lambs in December and January. The Dorsets are best for this purpose. You will not get these early lambs from the Southdowns or their crosses. We have known Shropshires and even native Merinos to drop their lambs in the fall and early winter, but to secure this the lambs had to be taken off very early in the spring and the ewes, after being dried off, be then flushed on a fine pasture and fed some grain to get them to accept early service. We would advise you to get a Dorset buck and the cross from this on your ewes will give you earlier lambs and in a year or two you will get what you want. There is no difficulty in raising the lambs here in the South and especially in your section, as the winters are so mild that they need very little shelter. All they need is good, succulent food



Great Fences

AMERICAN FENCE

Made of wire that is all life and strength—wire that stretches true and tight and yields just enough under impact to give back every jolt and jam it receives.

Made of materials selected and tested in all the stages from our own mines, through our own blast furnaces and rolling and wire mills, to the finished product. Our employment of specially adapted metals is of great importance in fence wire; a wire that must be hard yet not brittle; stiff and springy yet flexible enough for splicing—best and most durable fence material on earth.

To obtain these and in addition apply a quality of galvanizing that will effectually protect against weather conditions, is a triumph of the wiremaker's art.

These are combined in the American and Ellwood fences—the product of the greatest mines, steel producing plants and wire mills in the world. And with these good facilities and the old and skilled employes back of them, we maintain the highest standard of excellence possible for human skill and ingenuity to produce.

Dealers everywhere, carrying styles adapted to every purpose. See them.

American Steel & Wire Co.

Chicago
New York
Denver
San Francisco

ELLWOOD FENCE

BROWN FENCE

We make an extra heavy fence in which every wire—both strand and stay—are No. 9 gauge. These fences are made of the best fence material in the world—Hard, High Carbon "Double Strength" Coiled Spring Steel Wire, thickly galvanized. A more substantial and durable fence was never stapled to posts. 15 to 35c per Rod delivered—We pay freight. Send for our free sample and catalog showing 150 styles of fences. Send today.

THE BROWN FENCE & WIRE CO., Dept. 68 CLEVELAND, OHIO.

SAMPLE FREE

for the ewes. Roots, turnips and beets are essential and rape pasture should be provided.—Ed.

WHITE DIARRHOEA IN CHICKENS.

Please advise me in March issue as to what to do for young chickens with white dysentery. I had forty-five little fellows hatched ten days ago, and I am losing a great many of them with this. I am feeding them on Hollybrook Chick Food.

Burke Co., N. C. PHIFER.

This trouble is usually caused by damp weather and wrong feeding. Keep them warm and dry and feed only on boiled sweet milk and boiled rice.—Ed.

BURLEY TOBACCO.

Please give us an article in The Planter on the culture and curing of white Burley tobacco. Many of your readers here on the south side of the James, in the dark tobacco belt, have fixed their houses to air-cure tobacco, and are not satisfied with the prices the air-cured tobacco brings. It does not sell well for some reason. I believe our soil will grow Burley, and if we could make the change and get even \$10.00 per hundred, we would be much better off.

T. F. PRUDEN.

Cumberland Co., Va.

See our article on Work for the Month in this issue. We expect to say something more on this subject next month.—Ed.

WILD HONEYSUCKLE.

I have several places on my farm thickly set with wild honeysuckle. Can you tell me what will kill this?

W. L. BOATWRIGHT.

Buckingham Co., Va.

We know of no way of getting rid of this pest, but grubbing it out.—Ed.

GRAZING CROP FOR CATTLE AND TO IMPROVE THE LAND.

We would thank you for your advice on the following:

We want to improve a rather worn out field with a naturally good retentive subsoil, and at the same time raise all the forage we can for cattle. We have about concluded to plow it as soon as possible (sub-soiling) and plant on it some leguminous crop that will make a good yield, and let the cattle harvest it themselves through the fall and early winter. The particular point on which we seek your advice is: What is the best thing to plant? How would a mixture of soy beans and cow peas do with perhaps the addition of a little sorghum, millet or corn, or all of them? If we adopt cow peas, would you not advise the use of a rank growing kind, and what variety? We would likely want to repeat for two or three years. Are we too far north for the velvet bean?

Get Our Factory Price Direct to You

On 30 Days Approval Test—Cash or Time—Freight Allowed

It costs you nothing—at our risk—to test the Detroit Tongueless on your work for a month.

We sell only direct, so take this way of proving to you that imitations of the Detroit Tongueless are in no way its equal. We have no dealers or agents so you save their profits on the price you pay us direct. Keep the difference in your own pocket and get the genuine, original and highest class, guaranteed

DETROIT Tongueless Disc Harrow

The Forward Truck does away with all of the annoyance on the team of the old "tongue"—all neck weight—side draft and sore necks. Note back of the Disc Blades the TRANSPORT TRUCK—an extra attachment—upon which you can mount the machine, taking the Disc Blades off the ground, so you can drive over stony ground, rough and sandy roads, bridges, etc. Write today for our price—proposition to you and new 1908-9 Catalog sent FREE.

AMERICAN HARROW COMPANY
622 Hastings St., Detroit, Mich.

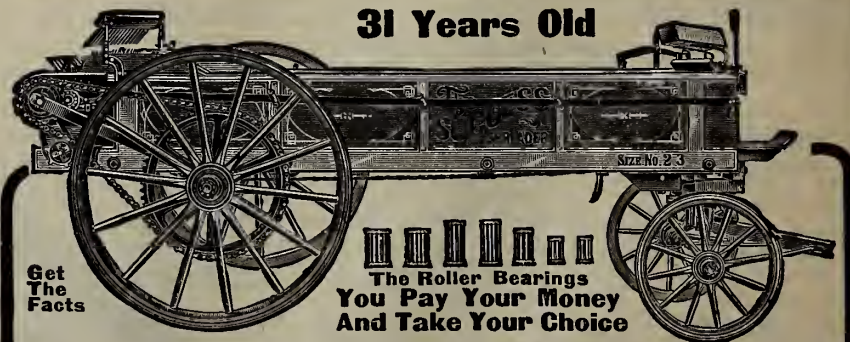
Branch houses in all trade centers enable us to make prompt shipments. Get an American Manure Spreader or Detroit Tongueless Disc Harrow by ordering early.



Write To The
AMERICAN HARROW CO.

622 Hastings St., Detroit, Mich.

31 Years Old



Get The Facts

The Roller Bearings You Pay Your Money And Take Your Choice

There's only one Spreader that has had a test of over 30 years. It is up to you to say whether you will invest your money in that machine or some other.

The 31-Year-Old Success Spreader

has proven itself on tens of thousands of farms. It has worked under all conditions. It has had all kinds of handling. It has a record for good work, right working and durability that is not approached by any other spreader. It is the one roller-bearing spreader—chain driven, free from gear wheels, least friction, least breakage, lightest draft, strongest. Equipped with either wooden or metal wheels as desired. You might as well have the Success Spreader. Get all the facts and you will buy no other. Catalog Free.

KEMP & BURPEE MFG. CO.,

SYRACUSE, N. Y.

THE IMPROVED RANEY CANNING OUTFITS

The Simplest and Finest Process Ever Invented.

Made in All Sizes, and Prices from \$5.00 Up, and Well Suited to Both Home and Market Canning—25,000 of Our Outfits Now in Use.

The finest Canned Goods in the World put up by farmers and their families. Write now, and get our free catalogue, giving full information, and prepare for the next crop.

THE RANEY CANNER CO., Chapel Hill, N. C.

Western Address: Texarkana, Ark.-Tex.

Now, we know your advice generally would be to cut the crop for hay and return the manure to the land, and we generally do this, but circumstances are against it in this case. We want the cattle to harvest it, and we, of course, want to plant such a crop as will minimize the chance of bloating.

A. G. P.

Culpeper Co., Va.

The course you suggest is one which will be likely to meet your requirements, but bearing in mind your main object, the improvement of the land, we would mix but a very light seeding of sorghum, millet or corn, with the legumes. These abstract fertility rather than help it. We have many subscribers who grow soy beans and cowpeas together, but we have never seen our way to strongly commend this course, as the soy beans are slower in growth than the cowpeas, and much of their value is lost if the peas are cut at the best time. However, as you are going to graze the crop, this will not be so serious an objection. We would sow mixed cowpeas, as they will make more pasturage than any single variety. We do not advise you to try the velvet bean. It would no doubt grow with you, though it will not mature its seed even in the latitude of this city, but cattle do not like it, and have to be compelled to eat it. It is a strong, rank growing vine, and will smother out everything it is planted with. We have known it to smother down a crop of strong grown corn. It is only fit to be used as an improver of the soil. For this it is valuable.—Ed.

AT DIAMOND "V" RANCH.

At Diamond "V" Angora Ranch, near Stokes Post Office, in Goochland county, affairs directed by Mann S. Valeine, not only do you find fine cattle and other live stock, but hunters, jumpers, runners and harness horses are also bred. Among the mares are fine general purpose animals and some choice matrons, too, of rich thoroughbred lineage, including Fickle Jade, by imp. Scorpion, dam Truth; Fannie Madison, by Miracle, dam Fanny H.; and others, all whom were bred last season to Blue and Gray, the son of Hindoo and Red and Blue, by Alarm. Blue and Gray is a big chestnut horse, and he carries some of the stoutest strains of blood to be found in the stud book. His second dam was Maggie B. B., dam Iroquois, winner of the English Derby, by imp. Australian, and she out of Madeline, one of Boston's greatest daughters. The chestnut stallion was a good race-horse, and has figured as blue ribbon winner in the show ring, while his get have proven winners on the turf, and many of them make grand hunters, able to take up weight, jump high and then go a distance.

The chestnut gelding Oriflame,

USUAL CROP OF CREAM SEPARATOR SNARES AND TARES

If actual merit alone prevailed the DE LAVAL cream separator would be the only one made, sold or used.

But the dairy farmer with his dollars is an alluring proposition to those who "need the money", so that every season brings with it a new crop of separator fakes and fables, with some of the old conjurers over again and always a few fresh ones.

Last year the new and improved line of DE LAVAL machines literally swept the field. This year everybody has a "new" machine, which is the one thing they universally harp upon in their talk and advertising. But it is mostly bosh and nonsense. There is mighty little new to them. No more DE LAVAL patents have expired so that there is nothing else "new" that they can lay hold of this year.

There's the usual crop of fakirs appropriating the facts of DE LAVAL separator use and the endorsements DE LAVAL separators have received, and quoting them as though they applied to their own inferior imitations of the standard cream separator.

There's the concern which makes an inferior disc separator and speaks of the "disc" separator being "the machine which has won out universally in Europe, the home of the disc separator." True, but it was the DE LAVAL that has done the winning out in Europe, as it has in America.

There's the political separator concern, with the new "year" or "cents" trademark, whose claims it is to be hoped nobody ever believes, and which manifestly practices the circus man's theory that the great American public ever like to be fooled.

There's the only concern which has stuck to the abandoned DE LAVAL "hollow bowl" of 30 years ago, but will this year desperately join the procession of 10 year back DE LAVAL imitations with a "disky bucket bowl" machine.

There's the "Trust," striving to complete its monopoly of dealer and farmer, harvesting much costly separator experience, largely at the expense of buyers-for-use, through trying to build a cream separator like ordinarily made farm machinery.

There's the "mail order" outfit, with their cheaply made machines, bought here and there, not made by themselves or sold under the real manufacturer's name, all claiming the earth and many things that should be below it.

But the merry lot changes and dwindles every year. They gradually drop out and leave their unfortunate patrons helpless with trashy machines. More will fade away this year. The dairy farmer, like the cream-ryman, is coming to know something of separators. He doesn't swallow mere "claims" so easily. 98 per cent. of the world's creamerymen use DE LAVAL machines. The percentage of farm users content with nothing else is always increasing.

There isn't a single reason why every man who buys a cream separator this year should not buy a DE LAVAL. There are many reasons why he should. The best costs no more than the various grades of inferior imitating machines.

A DE LAVAL catalogue may be had for the asking. A DE LAVAL machine may be tried for the asking.

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.

looked upon as one of the best four-year-old heavyweight hunters in the State, was sired by Blue and Gray, out of general purpose mare used on the farm of William Beasley, the Lynchburg lawyer, who bred Oriflame.

THE P & O IMPLEMENTS.

We invite attention to the advertisements of the Parlin & Orendorff Co., Canton, Illinois. This Company manufactures more than 1,400 different styles and sizes of farm implements and machinery, including plows, harrows, planters, cultivators, carts, garden tools, etc. As this Company has been in business about sixty-seven years, it will be seen that its ancient and honorable record stands it in good stead where quality and ability to make an implement is concerned. Send for its illustrated pamphlet No. 56.

HACKETT'S GAPE CURE.

We invite attention to the advertisement of T. C. Hackett, to be found on another page. Mr. Hackett appears to have a very efficient remedy, as we note from one of his circulars that his sales in 1908 exceeded any previous year by over 600 per cent.

WARNER'S SEED CORN.

H. W. Warner, Easton, Md., is advertising a very high yielding strain of Yellow Dent corn this month. Write for his circular giving information as to his method of corn breeding.

BENNETT'S STUMP PULLER.

H. L. Bennet & Co., Box 114, Westerville, Ohio, who make a very powerful and practical stump puller, are advertising for agents in this issue. They also make a tile ditcher and a corn harvester and will be very glad to give particulars regarding them. Look up the advertisement.

HARVEY WAGON SPRINGS.

Wagon owners are invited to investigate the merits of the Harvey Springs, which are advertised regularly in our columns. The Harvey Spring Co. makes a specialty of this business and can furnish an article of superior merit.

A HOME WATER SUPPLY SYSTEM.

Graham, Davidson & Co., Richmond, Va., are advertising a system of water supply, which should appeal to farmers and residents of country towns. The system of supplying water to all parts of your house from any source is a very simple and easy matter and likewise an inexpensive one under their system. You are invited to write for full particulars and they will take pleasure in responding promptly.

Somerset Co., Md., Feb. 11, '09.

The Southern Planter is one of my favorite agricultural papers.

JNO. W. HALL.

Johnston

Mowers

NOT
IN THE
TRUST

Make Friends by Working Well

When "cutting" begins, everybody and every horse on the farm is busy. Quick-working and light running Johnston mowers make farm work easier because we have eliminated everything that usually causes trouble. Roller-bearing throughout.

High wheels with three pawls, insure motion without jar or jerk and high power. Draft is evenly divided between the pole drawing the truck and the draft rod pulling the cutting mechanism, making lightest draught on horses and least taxing on operator.

Hand and foot levers give perfect control at all turns, when cutting on a side hill or raising cutter bar over obstructions. Rigid cutter bar and shear cutting knives prevent clogging and insure a clean smooth swath in light or heavy grass. Chain or gear drive and "Lever Fold" as preferred. We also have a one horse gear drive mower for small farms, orchards, lawns and parks. Let us send you our library—all about Johnston Farm Tools.



HERCULES Steel Stump Machines

CAST IRON
Strength to the square inch 16,000 pounds

STEEL
STRENGTH TO THE SQUARE INCH 120,000 LBS.

do the work of three iron grubbers. No staking down required. Pull trees as well as stumps. Less cumbersome than iron, easier handled, price almost as low. The only steel grubber and it's unbreakable. We pay freight and guarantee for three years.

400% stronger and 60% lighter than iron.

Write for catalog and price list.

HERCULES MANUFACTURING CO.,
Dept. 416 Centerville, Iowa, U. S. A.

Butler Co., O., Feb. 6, '09.

I have enjoyed reading the many interesting and helpful articles that regularly fill the pages of the Southern Planter.

JNO. EARHART.

Smyth Co., Va., Feb. 9, '09.

I consider the Southern Planter by long odds the best paper of its kind published for a farmer in the South.

M. SANDERS.



THE GREATEST CREAM SEPARATOR Money Can Buy

Sharples 1909 Tubular "A" Cream Separators are positively unequaled. Money can not buy, nor experience recommend, any other as good.

We have manufactured cream separators for 29 years. After making common "bucket bowl" separators for 20 years—the kind all other separator manufacturers still make—we discovered that no "bucket bowl" separator can ever prove entirely satisfactory. The bowls in all common "bucket bowl" separators are built and run up-side down, exactly contrary to the law of gravity and every law of mechanics.

To overcome this fault; still found in all other separators, we invented, patented and manufacture the

Suspended Bowl Sharples Tubular

The Tubular has been on the market about ten years, is built in the biggest, finest separator factory in existence and is sold in great numbers all over the world. We also have Tubular factories in Canada and Germany.

Sharples 1909 Dairy Tubular "A" Separator has handsome, one piece frame equipped with plumb bob for quickly leveling the separator and keeping it level. It has waist low supply can; enclosed, dust proof, self-oiling gears; light, bottom fed bowl, hung below a single ball bearing. The bowl has no complicated inside parts. The Tubular is extremely simple and practical, is washed in 5 minutes, is approved by all women as easiest cleaned, turns easiest, skims fastest and best, wears longest. Look at pictures, then write for Catalog No. 290.

The Sharples Separator Co.
 Toronto, Can. WEST CHESTER, PENNA. Portland, Ore.
 Winnipeg, Can. Chicago, Ill. San Francisco, Cal.



The unequalled simplicity and perfect construction of Sharples Dairy Tubulars make them wonderfully light running, surprisingly convenient, remarkably durable, surpassingly efficient. Every Tubular is guaranteed forever against all defects in material or workmanship. Medium size Tubulars can be turned by one who is seated.

Sharples Dairy Tubulars have the finest known method of oiling. The driving gears, and the ball bearing which supports the bowl, are enclosed in the head of the machine. A spoonful of oil is simply poured into the gear case once or twice a week. The lower gear wheel dips into this oil and throws it in a spray over all the gears and the ball bearing. The oiling is perfect, is never forgotten, causes no trouble. All running parts are easily reached simply by lifting the gear case lid.

WASHINGTON NOTES.

The House of Representatives Committee on Military Affairs has under consideration a bill authorizing the construction of a road from Fort Leavenworth, Kansas, to Fort Riley, a distance of 140 miles. The cost of this road will be about \$250,000, but the government will not have to spend that much money. Farmers along the proposed route have formed an association and entered into an agreement to supply all the rock necessary for the road free of cost to the government. The various townships and municipalities have also agreed to aid financially in the building of the road, and it is estimated that it will not cost over \$100.00 in actual cash.

Not only is the road a military necessity, but the Department of Justice believes it is a necessity from a prison standpoint. More than 1,000 Federal prisoners are now confined in the United States Penitentiary, at Leavenworth, and for the past five years they have found employment in the erection of the new prison. That institution is now about completed, and when it is finished, there will be nothing for the prisoners to do.

It is proposed to put them to work on the military road. This will also be the first time in many years that

FULLY GUARANTEED



WE WANT AGENTS for the

BENNETT STUMP PULLER

MOST PRACTICAL MACHINE MADE

One man can lift 20 tons. Made in 3 styles, .10 sizes, Screw, Cable and Hand Power.

WARRANTED TO BE THE BEST MACHINE

on the market and one that will do the work. Write to-day for catalog and any information desired. No trouble in answering your questions. We have a proposition that will interest you.

We also manufacture a **TILE DITCHER and BEST CORN HARVESTER** ever made.

Write at once for agency and be the first one in your locality.

H. L. BENNETT & CO., Box 114, WESTERVILLE, OHIO.

The New Deere No. 80 Cotton & Corn Planter

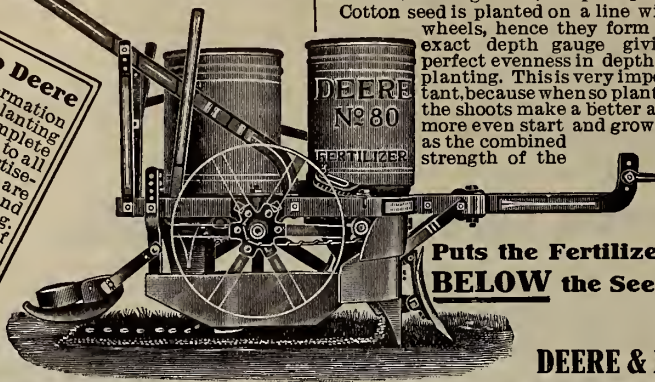
THIS machine does in one operation the work of sweep, fertilizer and planter; saving *two-thirds of the time*

over the old way. Not only this but does the work better. The fertilizer is placed **below** the seed (see cut). **Deere No. 80** is built entirely of steel and iron, nothing to rot, warp or split.

Cotton seed is planted on a line with wheels, hence they form an exact depth gauge giving perfect evenness in depth of planting. This is very important, because when so planted the shoots make a better and more even start and growth, as the combined strength of the

tender shoots coming up together breaks the hard crust, while scattered sprouts will be smothered.

Fertilizer Attachment that is Practically Unchokable, has seven different settings, fertilizer is thrown out of gear separate from cotton feed, can be removed in a few seconds whenever desired. The feed is very even. Machine can be furnished without fertilizer at less price. Cut shows the **No. 80** with drag covers. Press wheel can be furnished on special order. We have a very complete **booklet** describing this machine in all its parts, and it will pay every cotton grower to **write for a free copy**. There are many superior points that are not mentioned here, but which are all fully explained in the booklet. This is not a cheap machine in any respect, but by superior designing and facilities for manufacturing it is sold for a very reasonable price. There is nothing slighted in any way. Notice the large ribbed hoppers with spring retained lids.



Puts the Fertilizer BELOW the Seed

DEERE & MANSUR CO., Moline, Ill., U. S. A.

Write a Postal to Deere and get the latest information on up-to-date Cotton planting machines. Full and complete information will be sent to all answering this advertisement. **Deere** machines are the highest standard and satisfy the most exacting. Please do us the favor of **mentioning this paper** when writing and we will send you our latest seed corn booklet and also a copy of our useful **Farmers Pocket Ledger**

the government has worked its prisoners outside of a prison. Prison authorities, however, claim it is entirely feasible, and that outside work will improve the health of the prisoners. Stockades will be built along the road to house the prisoners at night.

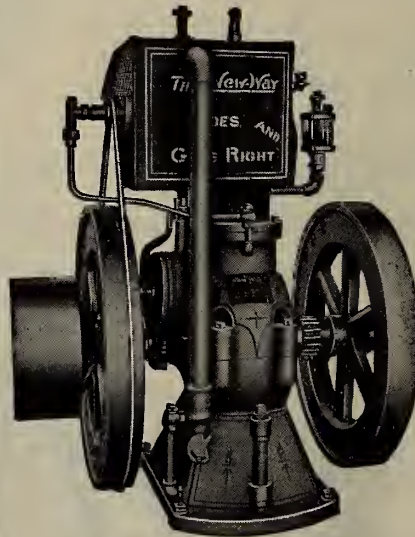
HOW TO MAKE HENS LAY.

The eastern part of the country has been stirred up the past few weeks over the announcement that some bright inventor has discovered a solution for the scarcity of eggs in the winter time. His remedy, it is stated by him, will increase the production of eggs more than 100 per cent. over what it is to-day. How does he do it, he says, simply by painting everything about the barnyard a bright and glittering green: fences, coops, roosts, perches of all descriptions, and so forth, and so on. He attempts no scientific or theoretical explanation of his discovery. He has possessed himself of certain facts after years of experiment, and he wisely seeks not to reason exhaustively. His only explanation is that whereas green makes the hens lay with great gusto, brown throws them into fits of moroseness, and under the baleful influence of that color nothing in the way of eggs may be expected of them. Some people venture to reason that the simple solution of this wonder is that green deludes biddy into believing that spring with its green grass and herbage has come again, and it is time for her to think of her family.

This plan suggests the one tried by a farmer who was economical, and in order to save the cost of green feed for his cattle purchased green goggles and affixed them to the noses of the animals, and then fed excelsior. Probably one is as effective as the other.

At the Nebraska Agricultural Experiment Station, last year, the average cost of feeding a dairy cow was

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.

Pulls Stumps or Standing Trees.

Clears a two acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grips the rope at any point. Does not chafe rope; far ahead of old-style "take-ups." Smallest rope we furnish stands 40,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Stump machine, the I. X. L. Grubber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue. Largest manufacturers of Stump Pullers in the World. Established 1884.



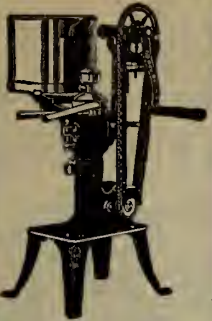
MILNE MFG. CO.,

834 5th St., Monmouth, Ill.



When corresponding with our advertisers always mention Southern Planter.

HOW I.H.C. CREAM HARVESTERS HELP MAKE BETTER CALVES



THERE are indirect as well as direct benefits in using I. H. C. Cream Harvesters.

Everybody knows that the Cream Harvester will save labor, save time and get more butter fat out of the milk than you can get by hand skimming. These are direct benefits. They are the most persuasive reasons why every dairyman should have a cream separator.

But an indirect benefit, hardly less important, is the better calves you can raise.

When you skim by hand the calves get the cold, tasteless, sour skim milk that has but little life in it.

If you haul cold milk to the creamery and take back your portion of the skim milk to feed your calves, it is even worse. In addition to its being stale and lifeless you take grave chances of introducing tuberculosis into your herd.

If you have an I. H. C. Cream Harvester, you separate the milk while it is warm and fresh. The calves, and pigs and chickens get the skim milk before it is stale, cold and sour. A little oil meal added to this appetizing skim milk makes it an ideal food, practically as good as the whole milk.

I. H. C. Cream Harvesters are very close skimmers. The saving in cream alone by using one of these machines goes far each season toward paying for the cost of the machine if you keep a number of cows.

There are two styles of I. H. C. Cream Harvesters, the Dairymaid and the Bluebell.

Dairymaid Cream Harvester

This machine is chain driven, and it is made in four sizes—350, 450, 650 and 850 pounds capacity per hour.

Because of the simple and direct application of power from the crank to the bowl, it is exceptionally easy running and is very easily kept in order. The strongest points about this machine are its close skimming, convenient operation and simplicity, which makes it exceptionally durable. The supply can and crank are waist high, an ideal location to make the work easy. When you get a Dairymaid you can be sure you are going to get all the butter fat in the easiest possible way.

Bluebell Cream Harvester

The Bluebell is a gear drive machine. It is exceptionally well constructed. The gears are accurately cut to the thousandth part of an inch. They are thoroughly protected from dust and milk, and they are provided with A1 oiling facilities. That is why Bluebell owners have less trouble than any other separator owners. The machine is simple. It is long-lived, and it is very easy running. The Bluebell bowl skims down to the thousandth part. Its interior separating device is patented, and it is the most efficient device of this kind manufactured. The supply can and crank shaft are at the proper height to make the operation easy.

Get either of these separators and you will get more butter fat out of your milk than you are now getting. You will get more nutritious and appetizing feed for your calves. You will save labor, save time. Investigate fully by calling on the International local agent and examine the I. H. C. Cream Harvester he handles, or, if you prefer, write the home office for full information.

International Harvester Company of America

(Incorporated)

Chicago, - - U. S. A.



about \$30.00 per year, and the total value of butter fat of the Station herd was about \$70.00 annually per cow, leaving an average of about \$40.00 for labor and profit, in addition to the value of the skim-milk and the value of the calf. With the present high prices for grain, the Station found that the cost of butter production can be reduced about 20 per cent. by the use of silage as a part of the ration. This result is obtained by reducing the cost of feed, and by materially increasing the average yield of butter for each cow through the use of succulent feed during the winter season.

PLENTY OF NITRATE OF SODA IN SIGHT.

The Department of Commerce and Labor has received a report from Consul Rea Hanna, at Iquique, Chili, in which he submits a statement made by the Chilean Official Board of En-

SAVE MONEY

By writing when in need of any description of

Machinery, Boilers, Engines, Tanks, Cars,

Rail Beams, Channels, Plates, Angles, 1 threaded Pipe sizes (1 to 6 inches.)
All sizes iron pipe and shells for road draining, etc. Boxes, Shafting, Pulleys, Hangers, Cable, Belting, and thousands of other useful articles in the Largest Stock in the South of used

SUPPLIES

CLARENCE COSBY. 1519-31 East Cary St. RICHMOND, VA. .
L. D. Phone, No. 3526.

Philadelphia Co., Pa., Dec. 21, '09.
I enjoy the Southern Planter very much indeed, there are many things that are very helpful to me, and I've allowed several of my friends to read it and it has helped them greatly in their work.
LUCRETIS T. KENNARD.

Douglas Co., Neb., Jan. 8, '09.
I enjoy reading the Southern Planter above any other agricultural journal I read, and if the people in general in your section were as progressive as your Editor, you would have a very different country agriculturally.
W. O. PERRY.

gineers on the remaining deposits of soda in that country.

"It is the current opinion in Europe and the United States," the engineers state, "that our nitrate deposits will be exhausted after a maximum period of forty years, and so widely spread is this error that the subject has been considered in the annual report of the Secretary of Agriculture, presented to the Congress of the United States. Perhaps the data submitted by the delegation in former years caused the lack of confidence, but the data then given were the results of this office up to that time, and at present the aspect is entirely different. The experience of the last ten years has shown that the former figures do not nearly approximate the actual conditions. The report of 1896 stated the total possible production in the nitrate zone of 1,603,000,000 quintals, with a probable annual exportation of 35,000,000 quintals this estimate gave, in 1899, enough nitrate to last forty-six years before being exhausted."

The engineers of Chile have found after an examination of recent explorations, that "there are undeniably 4,843,000,000 Spanish quintals of nitrate of soda in sight, which by the methods in use at the present time may be produced from the lands measured and estimated in the nitrate zone. With an annual exportation of 35,000,000 quintals, which is more than that exported in 1907, there is sufficient to satisfy the entire consumption of the world for 130 years."

GUY E. MITCHELL.

Detail Index.

Ground Peas—Grazing Crops for Stock—Japan Clover—Soy Beans—Burley Tobacco—Fertilizer for Corn.....	298
Molasses for Cattle Feeding.....	302
Corn and Tobacco Growing.....	304
Carbide—Soy Beans—Heifer and Cough	306
Canning—Minerals	306
Lame Mare.....	307
Breed of Poultry to Raise.....	308
Seeding Grass with Peas—Yellows	309
Wet Land.....	310
Rust on Cotton.....	310
Fertilizer for Tobacco—Spring and Summer Pasture.....	310
Alfalfa—Cowpeas and soy Beans	311
Nitrate of Soda for Wheat and Oats—Fertilizer for Corn.....	312
Lima Beans—Nux Vomica to Kill Crows and Effect on Turkeys	313
Hog Pasture—Teosinte.....	313
Seed Corn.....	314
Fertilizers	314
Top Dressing for Oats—Fertilizer	

(Continued on Page 340.)

Remington
AUTOLOADING SHOTGUN

*Loads itself with its recoil
Has a solid breech ITS SAFE*

This is the greatest game gun in the world. Old hunters write us that it is hard hitting, quick in action and safe. The city sportsman, who shoots only occasionally prefers it, because of its light recoil. The Kick reloads it and you have 5 shots at your command. Five shots, solid breech, hammerless.

Write for descriptive folder and Game Laws of U. S. and Canada.

REMINGTON ARMS CO., Ilion, N. Y.
Agency, 313 Broadway, New York, N. Y.

THE IMPERIAL DOUBLE DISC HARROW
WITH FORE TRUCK.
A Combination Of Out-Throw and In-Throw Disc Harrows in a Single Machine.



The Imperial Double Disc is a double machine with double capacity. It is handled by one man with three or four horses, doing the work of two men and six horses when using ordinary Disc Harrows. The soil is harrowed twice in one passage over the field, being cut and worked outward by the forward discs and then cut and thrown back by the rear discs. The surface of the ground is left smooth and level. This double harrowing is exactly equal to two workings of the field with a single machine. The saving in time is just one-half and in expense nearly as much. The quality of the work is better because the second harrowing follows immediately while the ground is mellow and because it leaves an even, level surface.

The rear gang frame is hooked to the main frame, forming a flexible connection that aids greatly in turning corners and follows the front gangs as the rear wheels of a wagon follow the front wheels. The ground is not thrown up in ridges when turning, as is apt to be the case with a rigid frame, but is as evenly and smoothly harrowed as in other parts of the field.

An important feature of this machine is in the quick and easy change that may be made into a single Harrow by detaching the rear gangs. This is done in a moment's time by removing a spring cotter and lifting the end of the rear frame bar where it hooks into the main frame. Having detached the rear gangs, the operator has a regular two gang Cut Out Disc Harrow complete in every particular and ready for work.

See for our complete Catalogue, which gives prices of different styles of harrows, and our full line of up-to-date Farm Machinery.

THE IMPLEMENT COMPANY, No 1302 East Main St., RICHMOND, VA.

CANNING MACHINES

\$500.00. Family Size to Factory Plant. Cans, Labels and complete supplies. Write for FREE Literature to day.

Start your own Canning Factory. Big Profits in canning for the Market with MODERN CANNER METHODS. Have won Highest Awards. Capacities 100 to 10,000 cans per day. Prices \$5.00 to

MODERN CANNER CO., Chattanooga, Tenn., Dept. [M]



THE HARVESTER AT WORK.

The American Peanut Harvester

Revolutionizes the method of harvesting Peanuts. It digs, shakes and piles the Peanuts at one operation, thereby saving the labor of five to seven men. Recent improvements make it possible to harvest all varieties, regardless of growth of vines, etc.

Live agents wanted. Special introductory price on first machine sold in each locality.

We also make a single row (or double row on order) Peanut Planter, also a machine for picking Virginia peanuts. In fact, we are

Headquarters for All Kinds of Peanut Machinery and Supplies.

WRITE US FOR CATALOGUE, INFORMATION AND PRICES.

AMERICAN PEANUT HARVESTER CORPORATION, Petersburg, Virginia.

NATIONAL PNEUMATIC WATER SUPPLY

FOR COUNTRY AND SUBURBAN HOMES.

Gives all the advantages of a city water works and furnishes fire protection, which reduces insurance rates. The accompanying sketch shows a complete water system, bath and kitchen plumbing.

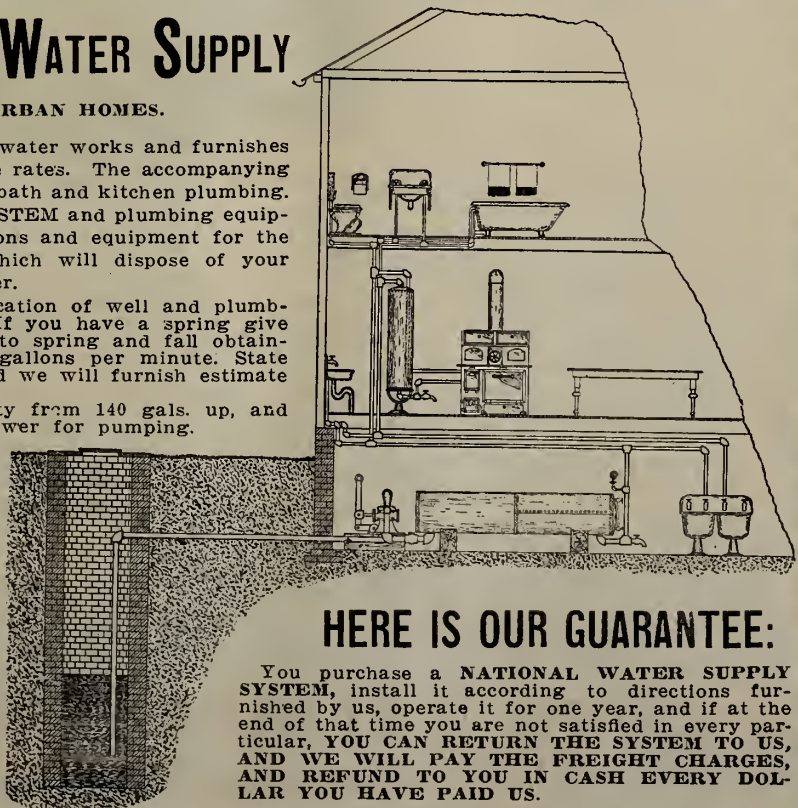
In connection with our WATER SYSTEM and plumbing equipment, we furnish plans and specifications and equipment for the construction of septic sewer tanks which will dispose of your sewage in a most satisfactory manner.

Send us rough sketch showing location of well and plumbing fixtures and give depth of well. If you have a spring give distance from house, fall from house to spring and fall obtainable in spring, branch, and flow in gallons per minute. State how much water required per day, and we will furnish estimate of cost free.

We furnish system in any capacity from 140 gals. up, and for the application of any kind of power for pumping.

Get our prices on WINDMILLS, GASOLINE ENGINES, HOT AIR ENGINES, PUMPS OF ALL KINDS, AND HYDRAULIC RAMS. INQUIRE ABOUT OUR BUMSON RANGES. WRITE FOR CATALOG.

GRAHAM DAVIDSON & COMPANY,
Richmond, - Virginia.



HERE IS OUR GUARANTEE:

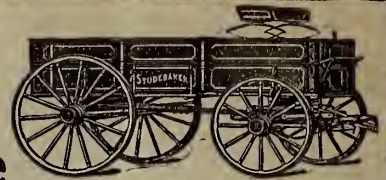
You purchase a NATIONAL WATER SUPPLY SYSTEM, install it according to directions furnished by us, operate it for one year, and if at the end of that time you are not satisfied in every particular, YOU CAN RETURN THE SYSTEM TO US, AND WE WILL PAY THE FREIGHT CHARGES, AND REFUND TO YOU IN CASH EVERY DOLLAR YOU HAVE PAID US.

LARGEST VEHICLE FACTORY IN THE WORLD

Studebaker

THE STUDEBAKER PLANT COVERS 101 ACRES

Means
Long
Service



and that's what the prudent man wants when he buys a *vehicle* or a *set of harness* of any kind—something that *will last* and give *absolute satisfaction* in every day of its life. You can't afford to run risks. You can't afford the false economy of "cheap" wagons or "cheap" buggies or "cheap" harness. If the *Studebaker* is better you want it—and you can see that it's better if you will only examine it. Superior materials and superior workmanship makes superior quality.

See the Studebaker Dealer Examine for yourself the materials used in the *Studebaker*. See how well the *Studebaker* is made—note the light draft of the *Studebaker*—and you'll not wonder that more *Studebakers* are sold than of any other make. See for yourself. *If you don't know a Studebaker dealer we'll be glad to send you his name.* Mention this paper, send us two cents in postage and we will mail you free *Studebaker's 1909 Farmer's Almanac*, containing, "In Oklahoma," Cyrus Townsend Brady's inspiring story of pioneer days.



**Studebaker Bros.
Mfg. Co.**
South Bend, Indiana.

(Continued from Page 338.)

for Sweet Potatoes—Tenancy	
Terms	315
Corn for Land Liable to Flood..	316
Corn Growing.....	318
Fertilizer for Truck Crops.....	319
Burning Shells for Lime.....	320
Bee Supplies.....	320
Hair Coming Off Horse.....	320
Time to Sow Seeds.....	321
Seeding to Grain and Clover....	321
Fig Growing.....	322
Raising Young Turkeys.....	323
Mixing Fertilizer for Corn, Peas, Oats, Etc.....	323
Saving Cowpeas.....	324
Oat Smut.....	324
Sawdust	324
Alfalfa	326
Shell Marl.....	327
Timothy	327
Tile Drainage—Orpington Fowls	327
Corn Growing.....	329
Potash—A Technicality.....	329
Canada Peas.....	329
Tobacco Fertilizer—Green Corn— Improving Land.....	329
Dried Blood.....	331
Hot-House Lambs.....	331
White Diarrhoea in Chickens....	332
Burley Tobacco.....	332
Wild Honeysuckle.....	332
Grazing Crop for Cattle and to Improve the Land.....	332

Orange Co., Va. Dec. 29, '08.

I think the Southern Planter is a great journal. I enjoy reading it very much. W. C. NORFORD.

James City, Co., Va., Jan. 1, '09.

We think the Southern Planter one of the best farm papers for this section of the country. We get our money's worth every month. Long may you prosper and do good. ALEX. GLENESK.

AMERICANSAW MILLS

RELIABLE FRICTION FEED

Ratchet Set Works, Quick Recorder, Duplex

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.

THE "STAR" CORN PLANTER.

Cotton Hopper Attachment.

The greatest number sold and the most popular planter made. Not a neighborhood in Virginia where they are not used. Drills, also drops in hills, any number of grains of corn, peas, beans, etc., any distance apart. Puts the fertilizer down regularly in any quantity.

ASHTON STARKE, Richmond, Va.

When corresponding with our advertisers always mention Southern Planter.

GENUINE PERUVIAN GUANO



UNTOUCHED BY THE CHEMIST
OR THE MANUFACTURER

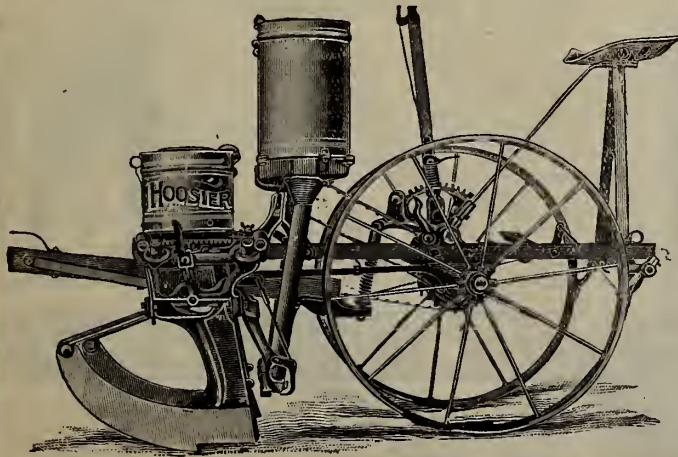
FOR

TOBACCO

COTTON

TRUCK

PERUVIAN GUANO CORPORATION, RICHMOND, VA.
CHARLESTON, S. C.



HENCH & DROMGOLD

CORN DRILLS.

HOOSIER AND SATTERLEE

CORN PLANTERS AND WIRE
CHECK-ROWERS.

POSTAL US FOR CATALOGUES OR ANY INFORMATION DESIRED.

Fairbanks-Morse Gasoline and Kerosene Engines, Wind-Mills, Towers, Tanks, New Holland Corn and Cob Mills, Wood Saws, Cwensboro and Buckeye Farm Wagons, Hickory and Peters Buggies and Carriages, Bissell and Genuine Dixie Plows and Repairs, J. I. Case Portable and Trac-tion Engines, Separators.

NEW IDEA MANURE SPREADER.

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 territory.



F. C. HOENNIGER & BRO. INC.
1432 E. MAIN ST., RICHMOND, VA.

F. C. HOENNIGER, Pres. & Treas.;
T. W. HOENNIGER, V.-Pres. and Mgr.;
L. O. BOONE, Secy.

NOW IS THE TIME TO SPRAY



We have the celebrated **DEMING SPRAY PUMPS**, Power Sprayers, Barrel Sprayers, Bucket Sprayers, Knapack Sprayers, for every condition, every pocket-book, from \$3.00 up.

Catalogue and Spraying Calendar Free.

Gasoline Engines, Wind Mills, Hand Pumps, Power Pumps, Saw Frames.



SYDNOR PUMP & WELL CO.,
RICHMOND, VA.
DEPT. B.

MAGAZINES.

The March Century is notable for the number of its articles on public men and public interests. The new President is given a prominent place in its pages, with a study, published anonymously, of his interesting personality; a picture, sketched by James A. Le Roy, of his character and methods as revealed by his work in the Philippines; and a first publication of two letters of Mr. Taft, one declining to be considered for the presidency of Yale, the other accepting his appointment on the Philippine Commission. In addition the reminiscences of 'Rutherford B. Hayes in the White House' and the story of "Our President Out of Doors" makes the issue decidedly a "White House Number," as it is called.

The articles on topics of general public interest cover a wide range. General Horace Porter, late Ambassador of the United States to France, gives reasons why the government should own its embassies. Under the title of "Public Morality and Street Railways," Frederick W. Whitridge, receiver of the Third Avenue Railroad Company, New York, discusses the reflex effect of bribery and corruption on the public's attitude toward the railroads. "Foundations of Lofty Buildings" are described by Frank W. Skinner, an engineering expert; and there is a presentation of present conditions of municipal credit and civic progress, under the title "New York's Nine Hundred Million Debt," by Henry Bruere, Director of the Bureau of Municipal Research, New York. To add to the interest of an authoritative discussion of "Profit-Sharing" by William H. Tolman, Director of the American Museum of Safety and Sanitation, New York, is a letter of comment and commendation by Andrew Carnegie.



The "Kant-Klog" Sprayer

Gets twice the results with same labor and fluid. Send postal today for free interesting booklet, explaining how the "Kant-Klog" gives

Nine Sizes of Round or Flat Fine or Coarse Sprays

or solid streams all from the same nozzle. Ten different styles of sprayers for all kinds of spraying, whitewashing, etc., etc.

AGENTS WANTED

Rochester Spray Pump Co., 21 East Ave., Rochester, N. Y.

SPRAYERS AND WHITEWASHERS



We are the largest manufacturers of all kinds of Sprayers, Whitewashers, Prepared Spraying Mixtures, Feed Cookers, Poultry and Brooder House Heaters, in the Central, Southern, or Western States.

Write to-day for 1909 CATALOGUE, it tells you when, and how to spray. We give Government Whitewash Recipes and Spray Calendar with each Sprayer.

SPECIAL OFFER—No. 20-4 gallon Galv. Steel Sprayer as shown spraying trees, \$4.50, express paid. 4 gallon brass, \$6.00, express paid.

Ripley Hdw. Mfg. Co., Box V., Grafton, Ill. Manufacturers Sprayers and Feed Cookers.



The YORK Improved Weeder

Write and let us tell you more about Weeders.



Strength of frame and flexibility of teeth are combined in the York Improved Weeder. The teeth are made of square spring steel with round points. Being narrow they do not injure the plants. No clogging. Ask your dealer to show you The York Improved Weeder, examine it carefully, and you will see that it has the advantages of efficiency and economy over all other weeders.

If your dealer doesn't sell this weeder, we will sell it to you direct. Spangler Corn Planters and Fertilizer Distributors always give satisfaction—durable, perfect in operation. Write for our free catalogue.

SPANGLER MFG. CO., 504 N. Queen St York, Pa.

Natal, So. Africa, Dec. 3, '08.

The sensible information in the Southern Planter will teach an agriculturist in one day more than he could learn without it in fifty years.

THOMAS THRESH.

Chrleas Co., Md., Jan. 10, '09.

I have been a reader of the Southern Planter for four or five years and consider it one of the most practical agricultural papers I have ever seen.

W. T. McPHERSON.

LEADING 1909 UP-TO-DATE LABOR SAVING TWENTIETH CENTURY MACHINERY.

FARMERS FRIEND FERTILIZER CAN DRILL.



ONE AND TWO-HORSE PLANTER, PLAIN OR WITH FERTILIZER ATTACHMENT.



DON'T FORGET! All the merchants in town who claim to sell Oliver Chilled Plows and Repairs only sell the imitation, bogus, cheap goods. The only store in Richmond, Va., to buy Genuine Oliver Plows and Repairs is at,

HENING & NUCKOLS.

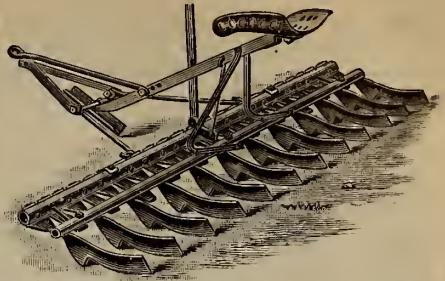
The Celebrated Avery "PLUTO" Disc plows, all styles and sizes. Write for circulars and prices.



Kemp's Twentieth Century Improved Manure Spreader. Made in three sizes. Write for special catalogue and prices.



The "Genuine" Reed Spring Tooth Cultivator. Thousands used every year, giving perfect satisfaction. The Reed Spring Tooth Cultivator can be converted into a spring tooth harrow by buying the center gang at a small cost making it a Spring Tooth Harrow on wheels. Write for the Reed Special Cultivator Circular and Catalogue.



"The" Improved All Steel and Iron ACME Harrow. It crushes, cuts, tears, smooths and levels, all in one operation. The cheapest riding harrow made. Write for circulars and price.

ECONOMY SILO



The most novel, practical and perfect doorway of the 20th Century. Continuous hoops with hoop support. Perfectly air tight. Built on scientific and mechanical principles. Fully warranted. Write for illustrated catalogue and information.

Write for our General Catalogue, mailed free to everyone. We sell only "A" grade goods, fully warranted and our prices are right.

HENING & NUCKOLS, 1436-38 E. Main St., Richmond, Va.

NORTHCOTE

Trotter, bay horse, foaled 1904. Height 15:3 hands; weight 1000 pounds; sired by Alfred Nelson, son of Alfred G., 2:19 3/4, dam, the Haxall mare. TERMS:—\$10 Season; \$15 Insurance. R. E. DALTON, Owner. 423 Hull St., Manchester, Va.

BLUE AND GRAY.

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. Fee, \$10 season. MANN S. VALENTINE, Stokes, Goochland Co., Va.

J. W. PARRISH, 45338.

Bay horse, 16 hands; weight 1,200 pounds, foaled 1902. Sired by Dumbarton, 33,799, dam Maud Elliver, by Conductor, 12,256. A trotting-bred stallion, with speed and good manners. Terms—\$8 single leap; \$15 season; \$25 insurance. Address, JOSEPH BAKER, Lloyds, Essex County, Va.

RACINE.

Bay horse, 16 hands, 1125 pounds. Sired by Bishop, dam imp. Fairy Rose, by Kisber. One of the handiest thoroughbred stallions in Virginia. \$10 season; \$15 insurance. W. W. OSBORNE, Gordonsville, Va.

PLANETEER 2nd.

Bay horse, 15:2; weight 1,100 pounds. Bred by Palo Alto Farm, Menlo Park, California. Sired by Electioneer, 125, sire of Sunol, 2:06 3/4; Arion, 2:07 3/4; Palo Alto, 2:08 3/4, etc. First dam Planetia, by Planet, sire of dams of Palo Alto, 2:08 3/4, etc. For terms address W. E. GRAVES, Lynchburg, Va.

1909 PETAURIST, 42431. 1909

Trial 2:27 3/4, trotting, bay horse, foaled 1904, by Peter the Great, 2:07 3/4; dam Telka, by Arion, 2:07 3/4; second dam La Jolla, by Advertiser, 2:15 3/4; third dam, Sally Benton, 2:17 3/4, dam of 4, by General Benton. Bred in the purple and a blue ribbon winner in the show ring. Fee, \$25 season, with return privilege. Address, JOSEPH LASITTER, Southern Stock Yards, Richmond, Va.

1909 JUDGE PALMER, 2:26 1-4 1909

(Formerly Dan Patch, Jr.) Bay horse, foaled 1904. Sired by Bursar, 2:29 3/4, dam Rose Wilkes, by Windom, 9892, son of Red Wilkes, 1749, Judge Palmer is a trotter by inheritance and a race horse. He has fine size, substance and good looks. Fee, \$25 season. Address, A. A. SLAGLE, Petersburg, Va.

CARDWELL, 47617

Trotter, bay horse, 15:2; 1,050 pounds, foaled 1904. Sired by Browning, 8,856, son of Mambrino Dudley, 2:19 3/4; Striata, by Mancho Star, 4,649, sire of Vernette, 2:23 3/4, etc. Terms, \$5 leap; \$10 season; \$15 insurance. Address, M. S. BOWLES, Owner, Cardwell, Goochland Co., Va.

Mechanics and Merchants Bank MANCHESTER, VA.

A. L. ADAMSON, President. J. H. PATESON, Cashier. Capital, - \$ 50,000.00 Surplus, - \$ 40,000.00 Deposits, - \$400,000.00

We solicit the business of all responsible parties, particularly Savings accounts of persons desirous of accumulating something. Negotiable paper discounted on reasonable terms. 3 per cent. interest on Savings Deposits.



Can Cancer be Cured? IT CAN.

We want every man and woman in the United States to know what we are doing—we are curing Cancers, Tumors and Chronic Sores without the use of the knife or by X-Ray, and are endorsed by the Senate and Legislature of Virginia. We Guarantee our Cures. KELLAM HOSPITAL, 1615 West Main St., Richmond, Va.

This is the South's Leading Clothiery.

If you can't call there for your clothes you can get them just as well by mail or express. Samples, etc., upon request. O. H. BERRY & CO., Men and Boys' Outfitters, Richmond, Va.

Spotless Paint at only 98 cents Per Gallon.

**THIS LARGE TWO
STORY HOUSE
PAINTED FOR
\$12.21**

A Large, Two-Story, Ten or Twelve Room House like this painted with Spotless Ready Mixed House Paint, two coats, for \$12.21.

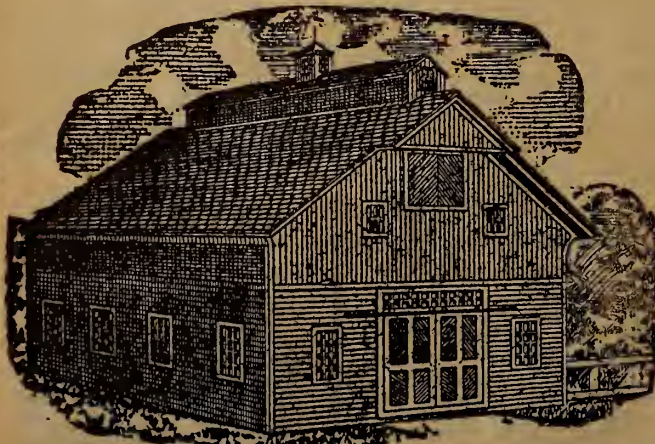
This large house, measuring 23 feet wide by 40 feet long and 24 feet in height will require

11 gallons for body	
10 gallons at 93 cents per gallon	\$9 30
1 gallon at 97 cents per gallon	97
2 gallons for trimming at 97 cents per gallon	1 94
	<hr/>
	\$12 21



DO YOUR OWN PAINTING

and buy your paint from us and thereby saving \$10.00 to \$20.00 on every building painted. Make your house and buildings proof against time. Increase their value and have the handsomest house in your section.



A Large Modern Barn Like This Painted with our SPOTLESS WEATHERPROOF PAINT, two coats, for \$8.45.

This large barn, measuring 30 feet wide by 50 feet long and 22 feet in height, will require—

12 gallons for body, 10 gallons at 59 cents per gallon	\$5 90
2 gallons at 64 cents per gallon	1 28
2 gallons for trimming, at 64 cents per gallon	1 28
	<hr/>
	\$8 46

of our Spotless Weatherproof Mineral Barn, Roof and Fence Paint, the most durable mineral paint made. Guaranteed to wear five years.

We sell \$1.50 Paint at 97 cents per gallon, or as low as 84 cents per gallon in larger quantities. It is as good paint as the kind you pay your dealer \$1.50 per gallon for.

OUR FREE TRIAL PLAN. We make every shipment under our binding guarantee that you may open and use any three gallons of paint you wish, putting it to the hardest test, and if you find that we have not shipped you a paint of as high quality as you can buy anywhere, regardless of price, just ship

back the unopened paint and we will not charge you for the three gallons used, but will refund all your money and freight charges. You must admit that this is a fair proposition.

OUR FIVE-YEAR GUARANTEE is that it will not blister, peel, chalk, crack nor rub off. Send us your name and address to-day for color cards and complete catalogue, sent free, or order from this ad. if in a hurry. It means a saving of more than one-third on your paint bills.

SPOTLESS CO., INC., 122 SHOCKOE SQUARE, RICHMOND, VA.

If you will write us the dimensions of the building you want to paint we will tell you the amount of paint necessary to cover it properly.
SEND FOR OUR FREE CATALOGUE AND COLOR CARD TO-DAY.

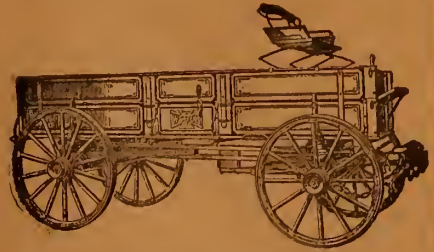
LABOR SAVING IMPLEMENTS AND MACHINERY.

THE WATT PLOW CO., Richmond, Va.

Smalley Electric Pole Saw. Equally adapted for sawing wood and poles up to 16 feet in length.



Fish, Moline, and Weber 2 horse Wagons. Champion and Hickory one horse wagons.

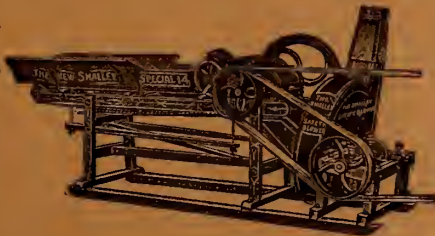


No 11½ Smalley Hand or Power Feed Cutter. The best hand power cutter on the market. It has 211½ steel knives which make a down cut.



Root and Vandervort and Alamo Gasoline Engines from 2 to 25 Horse Power. Circular furnished on Request.

Smalley Cutters, Snappers and Huskers furnished with blower or elevators.



Chattanooga Reversible Disc Plows made in 2 & 3 horse sizes.



Acme Harrow Made entirely of steel and iron. It crushes, cuts, turns, smooths, and levels all in one operation.



Success Manure Spreader. Has Roller Bearings to lessen draft.

We give special attention to our mail order business and invite your correspondence.

THE WATT PLOW CO., RICHMOND, VA.

1426 East Main Street.

1438 East Franklin Street.

Northwestern Mutual Life Insurance Company

When you put the life insurance agent off with the promise of next week, next month or next year, do you ever reflect how very uncertain it is whether he can do you any good then?

If you are alive when the time comes around, and want the COMPANY, the COMPANY may not want you. Any one of a dozen things may turn up to disqualify you for insurance.

That Cough may return, or your weight may increase or decrease beyond the limits, or, added to a none too good family record, some of your near relatives may have been carried off by a prejudicing malady.

It is a good day when the Man and Company both conclude they want each other and "Everybody wants the Northwestern now."

SEE OUR AGENT NOW OR WRITE TO ME FOR RATES.

T. ARCHIBALD CARY,

Gen. Agent for Va. and N. C., Northwestern Mutual Life Insurance Company, 601 Mutual Assurance Society Building, Richmond, Va.

- - Corrugated V-Crimp Roofing - -



Painted and galvanized

"Bestold" 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 EVERLASTING TUBULAR STEEL PLOW DOUBLETREES.

PAT. W. & S.
Tripletrees for
Walking and
Sulky Plows.

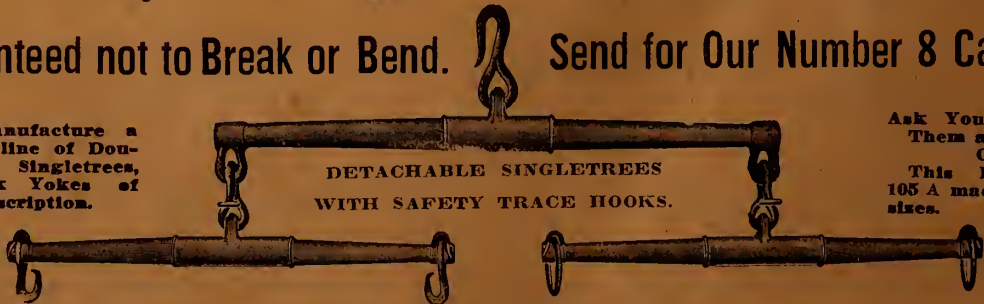


X—Hook or
Ring in center
as desired.

Guaranteed not to Break or Bend.

Send for Our Number 8 Catalogue.

We manufacture a complete line of Doubletrees, Singletrees, and Neck Yokes of every description.



DETACHABLE SINGLETREES
WITH SAFETY TRACE HOOKS.

Ask Your Dealer for Them and Take no Other.
This Pattern, No. 105 A made in three sizes.

BUYERS GUIDE.

The following are some of the houses handling the Everlasting Tubular Steel Doubletrees, carrying a stock of same and can supply customers promptly:

Norfolk Farm & Supply Co.....Norfolk, Va.
Hening & Nuckols.....Richmond, Va.
Watt Plow Co.....Richmond, Va.
T. R. N. Speck.....Staunton, Va.
Bristow & Worsham Co.....Richmond, Va.
Stokes, Williams & Co.....Blackstone, Va.
Seay-Dillard Hdwe. Co.....Blackstone, Va.

B. K. Gill.....Rehoboth Church, Va.
Duvall, Son & Co.....Farmville, Va.
Peterson & Jefferson.....Petersburg, Va.
Walker, Carroll, Adams Hdwe. Co.....Charlottesville, Va.
Baker-Jennings Hdwe. Co.....Lynchburg, Va.
Ainslie-Martin Co.Lynchburg, Va.
Graves-Humphries Hdwe. Co.....Roanoke, Va.

Pittsburg Tubular Steel Whiffletree Company, Sole Manufacturers, Pittsburg, Pennsylvania.