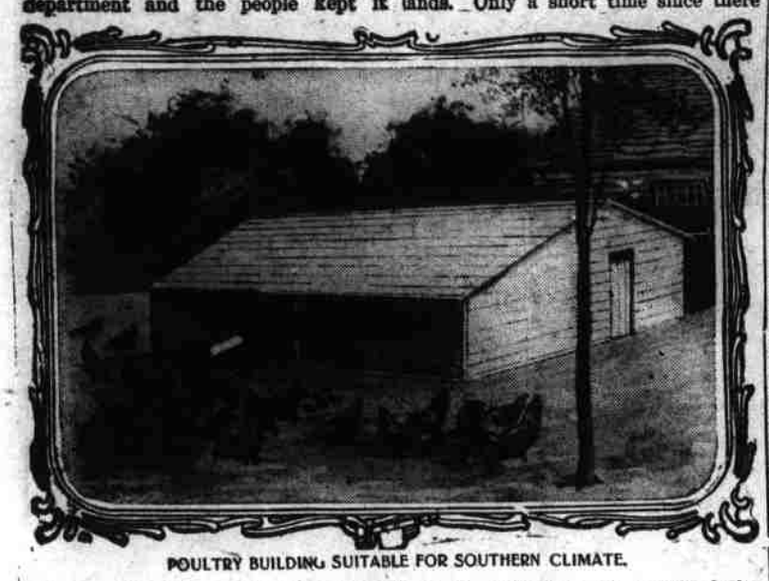
THE SOUTH BEST SUITED FOR POULTRY.

BY T. F. McGREW.

South of the Virginia line and on to the Gulf in the Atlantic States of this country can be found about the same climate as is prevalent along the Pacific coast south from San Francisco. The State of California, the people of California and the agricultural interests of California began a number of years ago a determined effort to colonize that section of the world with poultry growers. No stone was left unturned to make this effort successful; the railroads, the state statisticians, the agricultural department and the people kept it afloat, until California has become one of the largest poultry producing states of the country, and San Francisco and the Pacific Coast are being supplied with the finest quality of fresh-laid eggs and poultry of all kinds produced at home—a supply which formerly came from east of the Rocky Mountains.



POULTRY BUILDING SUITABLE FOR SOUTHERN CLIMATE.

We note this for the benefit of the states lying south of the above mentioned line. If the people in these districts, individually, locally and nationally, would take hold of the upbuilding of the poultry interest, of the growing of all kinds of land and water fowl for market and the producing of fresh-laid eggs in winter, it would not be many years before the fields of the South would bloom again as in the olden days when cotton was king, and when the planter of these districts rolled in wealth enjoying the distinguished attitude of being envied by all mankind.

The modus operandi to be pursued in connection with the poultry industry is extremely simple, and the only wonder is that it is not more generally carried out. It appears, however, to need the energetic work of one or two men in each community to demonstrate to the surrounding farmers the advantage and profit in employing up-to-date methods. The barnyard flock can within a short time and at a very small expense, be bred up from an average of 60 or 75 eggs a year to a production of 125 or 150 eggs per hen, constituting the difference between a loss and a handsome profit from the flock. All it is necessary to do is to decide upon some suitable breed of fowl and infuse new blood into the flock each year by the importation of a reasonably well-bred cock. By this means not only can egg production be increased but, if a general purpose breed is selected, a great average increase in the weight of the fowls will be absolutely assured.

In connection with this, nothing could be more profitable to handle than the growing of fruits and market stuff throughout the entire South. Two other features of great value might easily be added; that is, cultivating squabs for market and keeping bees for the production of honey and bees-wax. In the local market, bees-wax sells now for almost 40 cents a pound. In the southern or warmer climates where winter feeding would not be of long duration, the cultivation of bees for bees-wax alone would become a profitable vocation, even if the extracted honey were distributed among the neighbors as a gratuitous compliment from the growers of the bees. But the bees must be compelled to build their own honey-combs, to facilitate which, as well as to have a larger product of bees-wax, the boxes for receiving the honey should be so constructed as to influence the formation of a large amount of honey-comb or bees-wax in preference to honey.

If these matters were earnestly taken hold of by the agricultural departments in every Southern State and pushed as they should be, with a determined effort to aid the upbuilding of all these interests throughout these sections, greater wealth would be added thereto through the enrichment of the soil, as the natural result of growing of more cattle, swine, poultry, and stock of all kinds, the presence of which always enriches and fertilizes the soil, providing that care and attention be given to the economical saving of the manure and a proper distribution of it over the land.

The States of Missouri, Kansas and California are samples of what can be done in the upbuilding of the poultry interests for the elevation of its people through an increased income enabling the State to have better schools, better education, better homes, and to better improve their lands. Only a short time since there was a gathering of representative business men from the South looking for national aid to the upbuilding of the localities from which they came. Nothing should be more loudly applauded and approved by the people of this country than government aid properly applied throughout the Southern States; but this aid should be so applied as to make the people more industrious and to add to their wealth

WHITE AND BARRED PLYMOUTH ROCKS AT BILTMORE, N. C.

Ten millions of dollars or more, properly expended each year through the medium of agricultural colleges and departments throughout the states, would be a valuable investment by the National Government for the entire nation, provided these influences tended to upbuild the agricultural and live-stock interests of the South; to teach the growing communities how to care for their lands and their homes in a manner that would return to the soil its former richness, and to make the products of the ground increase and multiply and enrich the people. But nothing could be more unfortunate for any locality than to have sums of money voted to that purpose and have it made use of for political advancement and the aid of classes rather than the masses.

Fowl Bulletin in Demand.

Of the making of Government documents there is no end. This, too, although the President has forcibly expressed the opinion that the literary output of the departments could be cut one-half. But there are bulletins and bulletins.

"The Tapeworms of American Chickens and Turkeys," prepared by B. H. Ransom, B. Sc., A. M., Acting Zoologist, Bureau of Animal Industry is one that a city chap might classify as a useless publication. Even though "the important subject of tapeworms of poultry has received but little attention in this country" the individual who often mistakes cooked veal for chicken would not sanction the expenditure of public money for such a "ridiculous document." In this he would greatly err. There is scarcely a bulletin, it is said by members of Congress, that is in so great demand as the one entitled "The Tapeworms of American Chickens and Turkeys."

A MISSISSIPPI POULTRY RANCH.

The Fertility of Eggs.

In considering the possibilities for a good hatch from a setting of eggs, the fertility of the eggs used is of prime importance. Data regarding the factors affecting the fertility of eggs are of great value in the poultry industry, this question having been studied at a number of the experiment stations in the United States and elsewhere.

Too warm quarters for laying stock and overfeeding as well as a cold season are commonly believed to exercise an unfavorable influence on egg fertility. The way eggs are handled or stored is also believed to affect the proportion which will hatch, as well as the conditions under which incubation occurs. The vigor and character of the parent stock and the length of time the male bird has been with the flock are also important. At the outset, officials of the Department of Agriculture wish it distinctly pointed out, that fertility and "hatchability" are not necessarily identical. An egg may be fertile and the germ still not have sufficient vitality to produce a healthy chick under the ordinary conditions of incubation.

In a series of incubator experiments at the Rhode Island Station, of 8,677 eggs tested, 83 per cent. were found to be fertile, while only 46 per cent of the fertile eggs, or 38.6 per cent. of the total number of eggs, hatched under the conditions of the tests. Experiments made at the Maine Station showed that there was as great variation in fertility as in the total yield of different hens some producing eggs that were all highly fertile and others that were completely infertile, and, furthermore, that eggs of some hens varied greatly in this respect at different times. The observed facts seem to show that while a heavy egg yield does not hinder fertility, provided the hens are allowed to rest before they begin to lay again, infertility is likely to result after hens have been laying long and heavily.

The Ohio Experiment Station made a study of the effect of the presence of the male bird on egg fertility. Forty Leghorn hens which had previously been kept without males were placed

POULTRY, BEES AND FRUIT ON A SOUTHERN FARM.

in pens with three male birds and the percentage of fertile eggs observed for nine days after mating. This increased regularly from 0 on the day of mating to 95 per cent. on the eighth day after mating. The fertility of the eggs was apparently not materially affected until the twelfth day after removing the roosters. This point was also studied at the Ontario Agricultural College and Experimental Farm. The hens were separated from the male and the eggs laid each day were placed in an incubator and tested with respect to their fertility. Of the eggs laid during the first four days after the male was removed, 70 per cent. were fertile; of those laid on the fifth day, 61 per cent.; on the sixth, 60 per cent.; on the seventh, 49 per cent.; on the eighth, 12 per cent.; on the ninth, 2 per cent. and on the tenth, all were infertile.

The influence of the male on the total number of eggs produced was also tested with two lots. Lot 1 consisted of 5 pullets, 5 hens, and 1 cock; lot 2, of 5 hens and 5 pullets of the same varieties as lot 1. Both pens were fed and cared for in the same way. Lot 1 laid 959 eggs and lot 2, 972 eggs. It may thus be seen that there was but very little difference in the number of eggs laid by the two pens.

Ideal Conditions for Fertility.

The various observations made at different stations, while not entirely conclusive, seem to indicate that, in order to secure fertile eggs which will hatch, it is considered desirable for the laying stock not to be kept in very warm quarters or overfed; the males must be kept with the hens continuously and only eggs used which have been produced after the male has been with the hens several days. The most desirable fowls whose eggs are to be used are those from vigorous parent stock known to produce a high percentage of fertile eggs, while in order to secure a great percentage of fertile eggs the hens should be allowed a rest after each laying period. The eggs should be handled very carefully and not subjected to extremes of temperature in storage, and used only when comparatively fresh.

As a whole it may be said that the ordinary conditions prevailing on the farm as a rule favor the production of eggs of high vitality. The keeping quality of eggs is a very different matter from fertility, as it is the general belief that infertile eggs keep better than fertile.

Keep the Animals Warm.

"How do you manage to always keep cattle looking so sleek and fine," was asked of a successful stock raiser.

"Why, I keep them comfortable," he replied, "from the day they are born until I sell them."

And this is to a great extent the secret of success in stock growing.

The best farmers are the best stock raisers; and this is a branch of farming that always wins in the long run. If you can raise all the rough feed and grain that your stock need, do so, by all means, but don't neglect the stock to do this. Better buy of some less fortunate neighbor who has more feed than stock. There are other things beside feed, too. Have you seen cattle and horses humped and shivering, day after day, through the worst part of the winter? Do you think that those animals were comfortable? Picture yourself in that condition and imagine how you would like it! It is difficult to see how some men can crawl into a warm bed at night and sleep soundly until morning, while their live stock stand half frozen and perhaps half-fed all night. Such a man's feelings must be pretty well blunted. It doesn't pay in dollars and cents, either. Now, it doesn't cost much to fix up a comfortable shelter for stock, when old hay and straw can be had almost for nothing. When a man lets his stock suffer from the cold, it is a clear case of shiftlessness. But every year there are fewer and fewer of the shiftless class.

Use of Nitrogen Bacteria Limited.

The extravagant and misleading claims made by many of the circulars advertising those widely heralded bacteria for inoculating barren soil, which were to revolutionize agriculture, have led the United States Department of Agriculture to issue a warning to the farmers. In the first place the inoculation is very limited in application If the ground is already naturally infected with these nitrifying germs, any further addition of the artificial product is useless. They in no sense replace the usual forms of fertilizer; if the ground is barren, no benefit can be expected to result from its mere inoculation with bacteria; phosphates, potash, lime or other plant food must be added along with the nitrogen-fixing microbes. In a soil already rich in nitrogen the bacteria do little good.

Furthermore, many of the bacteria now on the market are of no value whatever. Of nineteen samples bought in the open market and examined by the Bureau of Plant Industry one was pronounced "very good," five others "good," and most of the remainder "poor" and eight "worthless."

The Telephone on the Farm.

He sits by his hearth and sells his cotton when it reaches 11 cents because his samples are stored in the town, even though his cotton is at that time under the cow-lot shed. He learns when he comes from the field at noontide, that the car-load of seed potatoes ordered by him and his neighbors has arrived and he goes to town immediately for his own share, and by phone agreement, hauls home the portion belonging to two neighbors for enough money to pay for his phone service that year. With a telephone in his home, the farmer has the world where the wool is short. He has a down-hill pull. On the next day he is too busy to send a horse to town, four miles away, for a bushel of seed corn he must have for immediate planting, as he has been advised by telephone of its arrival by express, so he pays a thriftless neighbor who is going into town to buy bacon, to bring the seed corn out to him. That is better than stopping a three-horse plow for a half day. At night he inquires of a neighbor over the phone, how he is pleased with the improved double-row corn planter, and he learns that it is the correct thing, so he orders one to be delivered the next day from his nearest implement house. It arrives and saves 50 cents a day in labor for ten days of the planting season. His wife calls up her cousin, who lives in the town and has a pleasant chat about all the doin's of the last two days; finds out who was present at the last social, which she was unable to attend, and she is satisfied. The phone is a veritable money maker, and social satisfier in the rural home. It is a builder of society, an insurance against violence and an ever present help in case of sickness.

Uncle Alec's Reflections.

Doan nebber try to comfo'ht er man by tellin' 'im his trouble might be wus. It tickles his pride ter feel dat he's beatin' de record, eben when it come t' bein' miserable.

The Reason.

Mah ole woman's idea ob economy am in payin' ten cents wurf ob cahfeih fo' de sake ob buyin' a dollar's wuf of stuff fo' ninety-eight cents, what she doan't want nohow.

There are 640,000 horses and 2,500 licensed automobiles in the State of New York.

High-born Siamese walk with the elbow joint turned inward and the thumbs turned out.

Henry Labouchere has spent one million dollars in defending suits for libel brought against him as editor of the London Truth.

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And the answer will be: "It depends on your health."
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