

Uncle Sam Doing Great Industrial Missionary Work



A FARMERS' CLUB OF ALABAMA



DEMONSTRATION COTTON PLANTS TAKEN NEAR NATCHEZ



THE NEW COTTON PLANTER VERSUS THE OLD

pounds of seed cotton have been raised on one acre, making a crop which with lint and seed, was worth \$195. These demonstration farms have shown a mighty increase in production over all others about where the old methods of farming were used, and in most localities they are showing a profit of \$15 per acre over that of their neighbors.

In one of the worst weevil districts, F. L. Maxwell of Louisiana grew 350 pounds of lint to the acre on a plantation of 2,000 acres, and this on land which is said to be especially favorable to weevil production.

Converting an Old Farmer.

This demonstration work is revolutionizing the south. Both young and old are engaged in it. Many of the boys have been each given an acre upon which to raise cotton, and there are now boy cotton clubs as well as boy corn clubs. The acre farms are to be seen everywhere, and the poor farmer cannot help knowing the big yields of his neighbors.

The government is trying to get the very best farmers to make the experiments. The agents pick out those who are noted for their success and common sense and ability. In many cases they persuade the older planters to engage in the work, and that with great difficulty. Take, for instance, one old Georgia farmer, who had been growing crops after the ordinary methods for forty years. The man stood high in his community, and it took much persuasion to get him to promise to set out an acre, and work it on the new plan. About two weeks after that the Agricultural department man again appeared. He found nothing doing and asked the planter why he was not carrying out his part of the contract.

"To tell the truth, my man, I never thought you would be around again."

"But you promised to set out that acre and plant it just as I told you."

"So I did," was the reply, "and now that you have come again I will do it."

"Well," said the agent, "suppose we go out now and start your men to plowing, and I will come around every week and see how you are following my instructions."

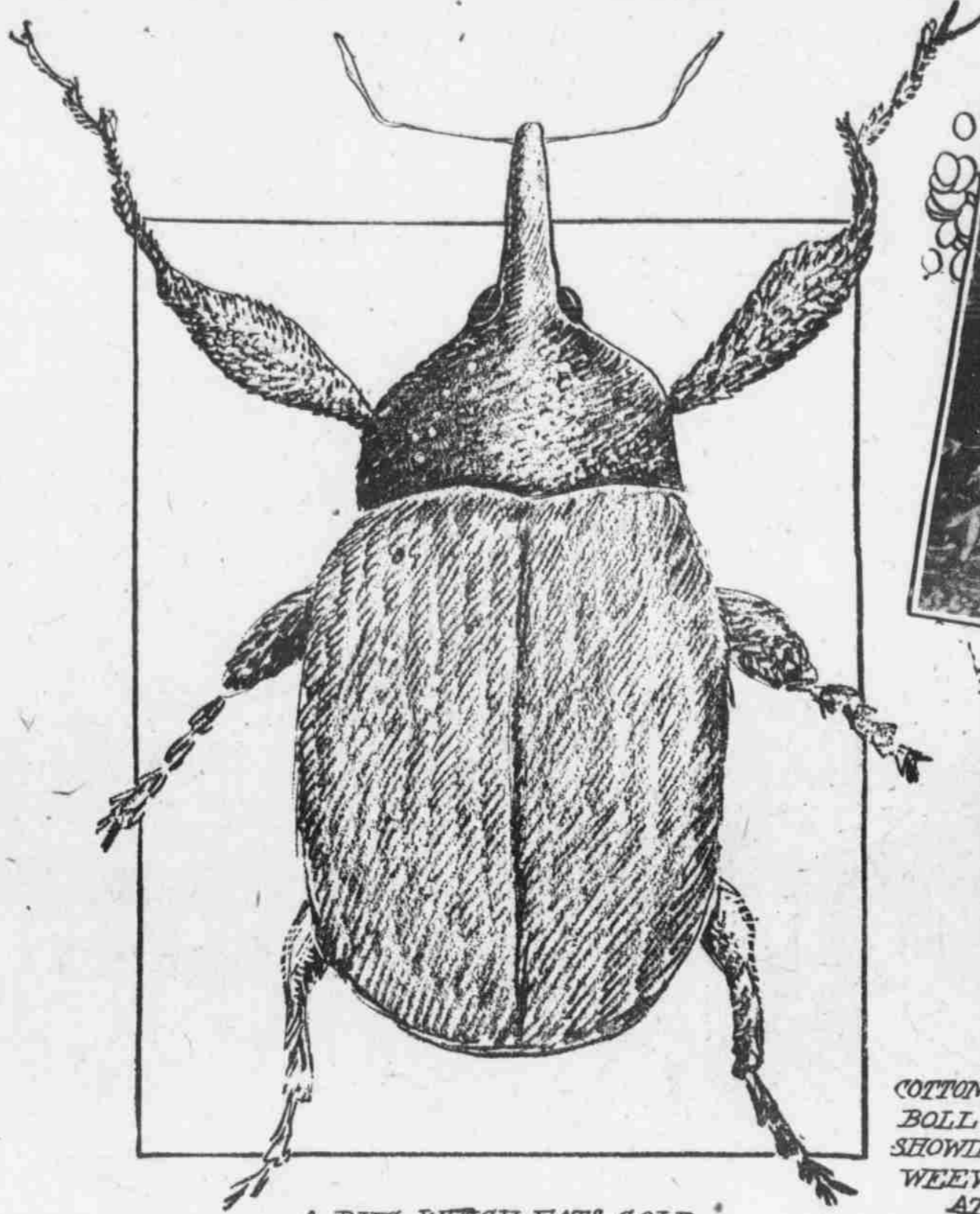
The old man laughed, but he went with the agent to the barn and picked out the tools. Among his farm implements was a subsoiling plow that he said was no good because it plowed too deep for his land. The agent insisted, however, that it was all right, and he did not leave until four mules were hitched to it and the ground was broken up to what the planter said was a ruinous depth. He then saw the land harrowed and instructed the farmer about his seed and how to plant it.

To make a long story short, the cotton came up with more vigor than any ever raised on that land before, and when, later on, the old man was asked to run a cultivator over the crop to cut out the weeds and keep down the grass he replied that it would ruin the cotton, and when the agent insisted, saying he would guarantee him against loss, the planter gave the order, but went away with tears in his eyes, saying he could not stay there and see his crop torn to pieces. He was surprised to find, however, that the cotton grew better than ever, and when, at the end of the season, he found that he had gotten two bales of cotton from that acre, whereas the rest of his land had produced less than one-fourth that amount, he became an active government supporter. His neighbors at first thought it must be in the seed, and they paid him \$2 a bushel for all that came from that acre. Later he met the agent again and, in speaking of his conversion, said:

"I am now over 60 years old and have farmed forty years, but it is only two years since I have learned how to farm."

The demonstration men give me many stories like this. They show something of this movement which is now permeating the south, and which promises to make it far richer than ever before.

FRANK G. CARPENTER.



A BUG WHICH EATS GOLD

COTTON BOLL SHOWING WEEVIL AT WORK

(Copyright, by Frank G. Carpenter.)
WASHINGTON, D. C.—I want to tell you how Uncle Sam has saved the cotton crop of the nation—how he has kept his children from bankruptcy and thereby prevented untold millions of human beings at home and abroad from going in rags. The story is one that deals not only with the south, but with our balance of trade. It affects the cotton factories of New England as well as those of Great Britain and all parts of Europe. It affects the life work of millions of women and children and the pocketbook of every man in the country.

It is the story of a plague greater than that of the locusts which ate up Pharaoh's Egypt or of the grasshoppers which some years ago chewed the heart of "bleeding Kansas." It is the story of a bug not one-tenth the size of a man's finger nail, but which, uncontrolled, bade fair to scratch prosperity from the face of the best states south of the line of Mason and Dixon. It is the story of the boll weevil and of how Uncle Sam's army of 75,000 demonstration farmers scattered over the cotton belt are fighting it and thereby bringing in an era of wealth the possibilities of which are beyond the wildest dreams of that land.

The Realm of King Cotton.

Have you ever thought how mighty King Cotton is? He is the richest monarch on the face of the globe. He has an aggregate annual income, in raw material and goods, worth billions of dollars, and this is steadily growing in value. Our own share of the cotton crop has more than doubled within the last twenty years and has quadrupled within the last fifty. If the present rate of increase continues the demand will be twice as great within twenty years more, and by 1950 we shall be asked to supply more than fifty millions of bales. This estimate is based on the world's consumption of cotton, of which we are bound to always be the chief factor. We are now making more than seven-tenths of the whole, and although England, Germany and Russia have been spending millions to compete with us, they have so far labored in vain. They have tried to develop new fields in Africa, Asia and elsewhere, but the climate and labor in those fields are such that they have but little hope for the future.

There is some cotton made in India and Egypt and smaller amounts in Russian Turkestan, Brazil and China, but of the total crop of the world the United States still produces a great deal more than two-thirds, and the prospect is that she will do that for all time to come. She would certainly do more if it were not for the boll weevil, and she can still do that, so the scientists of the Agricultural department tell me, with the weevil to fight.

A Bug Which Eats Gold.

But before I go farther I want to tell you something about this little bug which eats gold faster than the mercury used in our smelters. I saw one during a visit to the Agricultural department this afternoon. It was inclosed in a glass bottle no bigger around than a lead pencil, and not an inch long. It is not as large as a flea, and it is, in fact, a little greenish-gray creature about a quarter of an inch long, with a miniature snout of the same character as that of a razor-back hog. It is really a beetle which breeds in the pods and seeds of the cotton plant, and which seems to feed alone upon it. It is a cunning creature, and, to use a vulgar expression, is "right on the job." It has small wings, and it flies upon the cotton boll when just about forming. It bores a hole in the pod with its snout, and then turns around and lays its eggs in that hole. It now takes some wax or gum and smears over the hole, closing it tight.

By and by the eggs hatch out into worms, and they eat out the heart of the boll so that it falls to the ground. The worms continue to eat, and within a short time grow into weevils just like their mothers. They in turn lay their eggs in more bolls of cotton, increasing so rapidly that in one season a single family will become fifteen millions.

Our Greatest Mexican Invasion.

There has been wild talk about an army of Japanese joining with the Mexicans and invading the United States. The greatest Mexican invasion and the most serious invasion is that of this little bug which came in from Mexico in 1892. It then crossed the Rio Grande and began to increase its army at this fifteen million per family ratio. You remember Cadmus, who sowed the teeth of a dragon, whereupon a regiment of armed men sprang from the soil. It is the same with the boll weevil, only its regiments come up by the billions. They continue to hold every bit of ground that they take, and increasing by geometrical ratio they march onward, conquering every year a strip of territory which is seventy-five or more miles wide.

I have before me a map prepared by the United States bureau of entomology which marks out the lines of advancement. In 1892 the boll weevil had infested a short strip in south Texas. In 1893 it had moved farther north and west and continued its progress each year until, in 1900, aided by the storms and winds which brought about the Galveston flood, it had spread far beyond that city and was eating its way into the heart of the cotton belt.

A year later it had attacked a portion of Louisiana and now it has covered almost the whole of the Texas cotton plantations and cut deep into the heart of Oklahoma, Arkansas and Louisiana. It has jumped the Mississippi and is ravaging the states east of that river. It is beginning to lay waste southern Alabama and it will soon be eating the best cotton growing regions of Georgia, Alabama and Florida, from where it will go on into the Carolinas as well.

The scientists tell me that it is bound to proceed

and that some of the states which are yet free from it have been raising funds to fight it. South Carolina has already devoted \$10,000 to getting ready for it; the Alabama legislature has set aside a fund of \$25,000 to teach the farmers how to fight it, and the general education board of New York is putting out through the Agricultural Department at Washington \$15,000 this year to prepare Georgia against its attacks.

A Path of Ruin.

Until recently the path of this invading army has been one of ruin to the planter, it has depopulated the counties, bankrupted business and sown sorrow and despair. A few years ago it was prophesied that it would blight our whole cotton crop and cause a loss to the country of more than \$200,000,000 a year. As it is now, notwithstanding its ravages, by the improved farming methods an equal amount of cotton has been raised; and last year our product was greater in quantity and money than ever before. Had there been no boll weevil and had the same methods been used throughout the whole cotton belt, our crop would have been doubled and we should now be producing as much as 20,000,000 bales and upward a year. This is the estimate of the late Dr. Seaman Knapp, the father of the co-operative demonstration work of the Agricultural department throughout the south, which has proved the salvation of the country.

Before Dr. Knapp and his agents had shown the planters what might be done in cotton raising, notwithstanding the weevil, the farmers were in despair. They had been raising only cotton, and the weevil became the terror of millions. The planters thought it was impossible to fight it, and a man who lost a big plantation said it was proof against anything under the sun. At one of the conventions he said he had put a weevil in a bottle of alcohol which was 95 per cent pure and left it there for two hours. At the end of that time he took it out and put it on the table and it was only staggering drunk. He then sealed a handful of the insects in a tin can and laid it upon a brush heap, which was set on fire. The flames melted the solder from the can and the red hot weevils flew out and burned down his barn.

Has Cost Millions.

Speaking seriously, however, the department estimates that the weevil has already cost us millions of bales of cotton and many millions of dollars. It has annually cost Texas more than twenty millions for a series of years, and it is now ravaging the states farther east.

Take Mississippi, for instance, the southern part of which state is now weevil covered. In 1906 the cotton crop of Adams county amounted to 23,000 bales, and it was more than 20,000 in 1907. Then the weevil flew in and in 1909 the yield dropped to 1,700 bales. The tenant farmers and laborers left the county in gaags, and today lands can be bought there for a

song. It is the same in some counties of Louisiana. In Pointe Copee, 50,000 bales of cotton, which, including the seed, were worth over \$3,500,000, were raised in 1906, and the crop of 1907, amounting to 11,000 bales, was worth about \$3,000,000. Then the boll weevil came, and in 1909 the crop fell to 3,300 bales, or to something like \$200,000. These figures give you some idea of what this deadly bug means under the old cotton-raising conditions.

There is another feature of the situation, however, which must be mentioned. In most parts of the cotton belt cotton was the only crop. The planter relied upon it for the money with which he bought everything else. He imported his corn from the north, and his pork came from the store. He sent abroad for his mules, and with the exception perhaps of a few vegetables raised nothing but cotton. Moreover, he did the most of his farming on credit, getting the storekeeper or planter for whom he worked to furnish him his supplies for the winter, the same to be paid out of the cotton when it was picked. When the weevil wiped out the cotton he had nothing to fall back upon, and starvation stared the greater part of the population in the face.

What Uncle Sam Did.

This is the situation when Uncle Sam, Patriarch, in the person of his agent, the late Dr. Seaman A. Knapp, began to instruct the farmer how to fight this terrible bug and still make money out of his land. Dr. Knapp's plan was to teach us how to control the weevil as far as possible from season to season, and by the proper selection of seed and by deep plowing and harrowing to produce plants which would yield more cotton, or rather, enough to feed the necessary weevils and leave something to spare. His

Chains

LOVED you long ago; your eyes seemed glad;
They shone as clear as truth; you gave to me
Yourself; and all the world was naught;
and I
Rejoiced because you bound who found me free.

The chains are fast; so close the years and tears
Have welded me to you, I faint when Doubt
Besets my soul; when anguish enters in,
To question subtly Faith that was Devout.

The wayward look within your eyes; the gaze
That's turned from me; that lie you glibly told;
That truth you did not tell have wounded me
To Death, who loved you well in days of old.

—Frederic P. Ladd in New York Times.

motto was, "Double the crop by good farming," or, rather, raise the same crop on half the land.

The plan also provided for diversified farming, to make the farmer raise all of his own supplies, all his farm animals and their feed, and to have one patch which should be planted to cotton to furnish the cash for the family. This last fitted in with the conditions, for the boll weevil destroys credit wherever it goes and the farmers are compelled to raise other things in order to live.

75,000 Demonstration Farms.

The work began in Texas in 1904 and it has now spread throughout the south. The government has 550 agents in the cotton belt, and more than 75,000 demonstration farms, upon which the planters, under the weekly direction of these agents and their assistants, are raising cotton after government methods. In the boll weevil region there are county clubs of such farmers, and the stories of the success of their members have taken the place of politics as a topic of conversation.

The government agent selects, as far as possible, the best farmers and asks them to plant out an acre of cotton at some conspicuous place on his estate. It is, if possible, at a cross-roads, or at least near some road so that the people may see the results as they go by. A sign marking the spot as a government farm is put up, and this place is visited by the farmers for miles around and the operations carefully watched. At the start the farmers are always skeptical and it is difficult to get them to make the experiment. After the first year, however, they are anxious to try, and the demonstration farms multiply. In hundreds of counties this work has revolutionized the methods of farming, and men who were practically bankrupt have become rich. The deposits in the savings banks have increased and new banks are being started in nearly all such regions.

The credit system is on the decline. The planters are raising their own supplies, and with many of them the cotton receipts are almost all clear gain.

A Talk With Government Agents.

While at the Department of Agriculture today I had a long talk with two of Uncle Sam's agents who have been in charge of this co-operative demonstration farm work for the bureau of plant industry of the Department of Agriculture. Each has his own territory, through which he moves about from state to state and county to county, superintending the demonstrations and their hundreds of agents. These men are W. B. Mercier and H. E. Savely, both of Mississippi. They tell me that they are raising more cotton than ever before in the sections where the demonstration work is, and that last year on 83,000 acres which were cultivated under such directions, a total of 72,000,000 pounds of seed cotton was raised, making an average of 860 pounds to the acre. In North Carolina, where there is no weevil as yet, 2,900