



## IN THE COTTON-FIELD

BY MAX BENNETT THRASHER

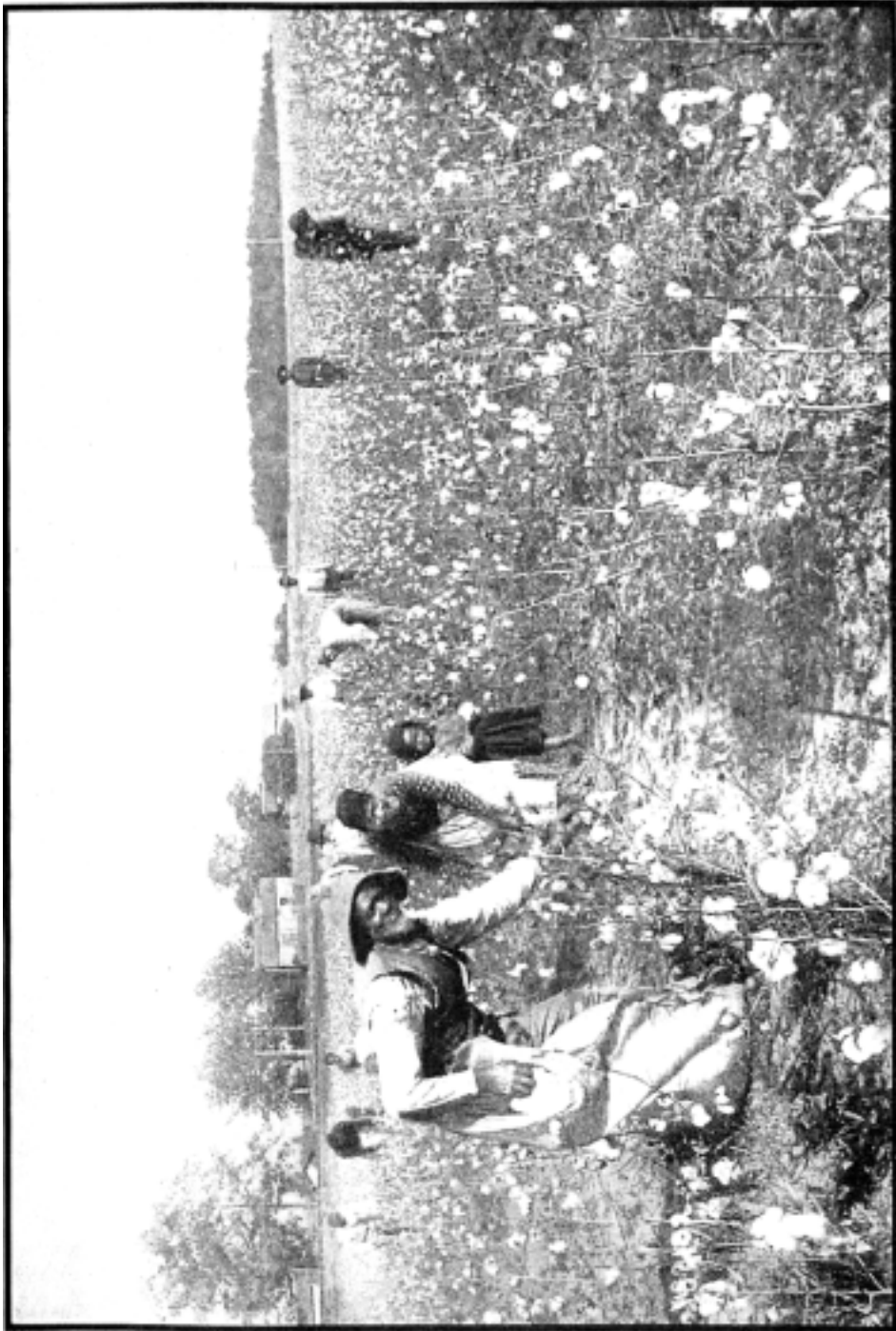
**W**HEN I was a boy on a farm in Vermont, where spring and summer and autumn are crowded into one brief, brilliant period between the melting drifts of April and the first whirling snowflakes of November, I used to read of the cotton-fields of the Southland and wonder what they were like. In our sheep-pasture there grew each summer a patch of lusty milkweeds. Many a time I have looked at those milkweeds when the fat green pods were bursting to let out their white, silky contents, and have wondered if a cotton-field looked like that.

Years passed before I knew. Then, one day, I found myself in Alabama. After my work in town was finished I said I wished I might go out on to a cotton plantation. It was in February. The man to whom I made the suggestion said that was not a favorable time of the year to study cotton-culture, but added, "I reckon, though, you-all might like it. You surely would see how the crop begins." Half an hour later we were on our way toward a big

plantation ten miles out in the country, our wagon rolling over a clay road so red that where the highway wound about in front of us it looked like a tan-colored ribbon appliquéd on the gray earth.

My first sight of the plantation showed me a broad, low house, with many verandas, placed far back from the road at the end of an avenue bordered on each side by a double row of magnificent water-oaks, their leaves as glossy green as if the month had been June instead of February. The air was like late May in New England. Wild plum-trees were in bloom. Bluebirds sang in the bushes, and as we drove up the avenue between the oaks barefooted children came out of the cabins to look at us. Two negro women were washing clothes out-of-doors near the house, heating water in an iron pot set on stones between which a fire was built. A litter of black pigs asleep in the road roused themselves and moved out of our way.

The owner of the plantation met us near the house and very courteously gave us



THE SECOND PICKING

permission to go wherever we wished. This was a plantation of fourteen hundred acres, one thousand of which were planted to cotton each year. The place had been in the possession of the same family for generations, and the owners had been men who believed that cotton was king and always would be. They planted only cotton, and bought the corn, bacon, and food supplies required for the people living upon the place. This was what was known as the "all cotton" system of planting. Few planters follow it now. By degrees methods have changed. The planter puts less ground into cotton, but often raises a larger crop on the smaller area because it is better cultivated. In addition he raises food crops and cattle. He tries to "live at home," and makes cotton his surplus or "money" crop. Many big plantations are cut up now and rented in small plots. These are known as "one-mule," "two-mule," "four-mule" farms, according to the number of animals required to cultivate them. One mule can cultivate thirty acres of land. The rent is usually paid in cotton—one-fourth or one-fifth of the crop. A bale of cotton to a mule is a common basis of rental. The owner of the land pays the taxes and furnishes a house—such as it is—on the land. The tenant also has the privilege of cutting firewood on the place.

We drove out on to the plantation. Acres of ground covered with the dead, dry stalks of last year's crop stretched on every side. I learned then that cotton-plants are not like milkweeds. Although an annual, growing from seed planted each spring, and killed by the fall frosts, the cotton-stalk grows to be hard and woody. Cattle eat the leaves, branches, and husks readily, but stop at the stalks. In the bark of these stalks is a fiber not unlike hemp, which may become a valuable by-product when machinery is invented for handling it profitably. The plant is pyramidal in shape, its largest branches nearest the ground. The "boll" is short and five-sided, instead of being canoe-shaped, like the seed-pod of the milkweed; and where the milkweed seeds and floss float cleanly away from the plant soon after the pod opens, the cotton clings to the boll for weeks. In fact, in February, months after the picking had been completed, white shreds fluttered in the wind

from stalks all over the fields through which we drove. These were the "strip-pings" left by careless pickers. If cotton had been high in price, it would have paid to have gleaned the fields for them; as it was low, they would not pay for the cost of gathering.

The plantation which we visited had its own "gin" on the place. Near this was a pile containing hundreds of bushels of cottonseed heaped up to "heat," that the germs in the seeds might be killed before the mass was used to fertilize the ground for the next year's crop. The question whether it is more profitable to use the seed in this way or sell it and buy fertilizer depends largely upon how near a plantation is to a cottonseed-oil mill and to the railroad station from which the fertilizer must be drawn.

On account of the low price of cotton that year, one hundred and fifty bales of the crop raised the year before lay on the ground near the gin-house, waiting for higher prices. A bale of cotton is expected to weigh five hundred pounds. As prices were then, the bales were worth about \$30 each. In 1900 cotton sold up to ten cents a pound and over, the highest figure it had touched for years. At the time I write, June, 1901, it is back down to seven cents and a fraction. The low prices which prevailed for several years were not an unmixed evil, since they influenced many planters to begin raising food crops as well as cotton. Last year's high prices have caused an increased acreage to be planted this year. Whether the result will be an overproduction that will bring prices down again to an unprofitable figure remains to be seen. The Hon. Charles W. Dabney, of Tennessee, who is an authority on all questions pertaining to cotton culture, gives the average cost of making a pound of cotton at 5.27 cents. The crop in the United States each year for the last three years has been over ten million bales, worth the enormous sum of from \$300,000,000 to \$400,000,000. The crop of 1899 was over eleven million bales. Although cotton probably can be grown with profit in only ten of the United States, the value of the annual crop is exceeded only by corn, which is raised in every one of the States, and, occasionally, by wheat.

In 1793 the yield of cotton in this country was little more than a thousand



“SCRAPPING”—PICKING THE LAST OF THE CROP

bales. The next year Whitney patented the “saw” gin, and in 1796 the product had increased to twenty thousand bales. Planters began to fear that the market would be overstocked, and one of them, looking at his newly gathered crop, said: “Well, I have done with the cultivation of cotton. There is enough in that one gin-house to make stockings for all the people in America.”

Great as is our cotton crop, the United States does not by any means have a monopoly in the cultivation of the plant. Cotton has been raised in Egypt for a time longer than history records. The Egyptian cotton is yellowish-brown in color, and has a staple nearly as long as that of the famous Sea Island variety, the most valuable cotton which this country produces. At the price at which it can be imported the Egyptian cotton is so desirable for certain manufactures that large quantities of it are brought into this country each year. Last year’s importations were over one hundred thousand bales. Russia raises large quantities of cotton in Turkestan and Trans-Caucasia. The crop of cotton raised in India is immense. In a digest of Hindu laws written 800 B.C., it is stated that the sacrificial thread of the Brahmins must be of cotton; that of the Vaisya, of wool. Herodotus and Pliny both speak of cotton. From India the plant was carried

to Japan and China. Cotton is indigenous to many parts of Africa. Four young men trained at the agricultural department of Tuskegee Institute, in Alabama, recently went under the auspices of the German Government to the German colony of Togo, on the west coast of Africa, to teach American methods of cotton culture to the natives there.

Columbus found cotton growing in the West Indies in 1492, and upon the mainland he found the natives wearing clothes woven from its fiber; Cortez found the plant in Mexico; Pizarro found it in Peru, and the mummies of that country are wrapped in cotton blankets. A pamphlet printed in London in 1609, describing the “fruits” of Virginia, says that cotton would grow there as well as in Italy. The first record of cotton being carried from America to England was in 1739, when a Swiss settler in Georgia took a sample of the staple across the Atlantic with him. In 1747 several “bags” of cotton were sent to England from Charleston, S. C., but the industry grew so slowly that in 1784 eight bales landed in Liverpool were seized on a charge of fraudulent shipment because it was not believed that so much cotton could have been raised in the United States. The exports from this country now are about seven million bales a year. The first cotton-mill in this country was built in Beverly, Mass., in 1787–88.

The most striking fact in connection with the cotton industry now is the great number of mills which have been built in the Southern States during the last few years. The five million or more spindles whirling in these mills, though, have not by any means driven out of use the spinning-wheels and hand-looms on which the clothes of many of the country people have been made for generations. In 1900 America, for the first time, consumed more cotton than any other country in the world, displacing England, which for one hundred and fifty years had enjoyed this distinction.

Practically all cultivation of cotton in the United States is limited by climatic conditions to the country south of the parallel of thirty-seven degrees. The cotton-plant requires five to seven months in which to develop. A frost does not hurt the cotton which has ripened, and picking is often delayed until into the winter, but the first frost checks all the buds and green bolls so that they will not develop. The cotton-plant thrives best in a hot, moist atmosphere. While drought causes a stunted plant, too much rain stimulates an overgrowth of stalk and branches, with few bolls.

The cotton-plant belongs to the mallow family. The scientific name of the genus is *Gossypium*. Any one who has seen mallows growing in an old-fashioned garden, and remembers the angular buds and seed-pods, will understand why the growing cotton-bolls are sometimes spoken of as "squares." The plant varies greatly in size, according to variety and the richness of the soil. Starved plants not more than a foot high will bear a boll or two of fiber. Plants on moderately good soil grow from four to five feet high. On very rich soil a man on horseback is sometimes hidden as he rides through the field.

The leaves of the cotton-plant are lobed, something like a maple leaf. They grow alternately on the stalk. Most people who know nothing about the cultivation of the cotton-plant think that cotton is merely cotton. Such will be surprised to learn that a recent publication of the Department of Agriculture enumerates one hundred and thirty varieties sufficiently distinct to be identified and named. These are "planters'" varieties. A botanist would not recognize so many. Some authorities have tried to reduce all varieties to three—

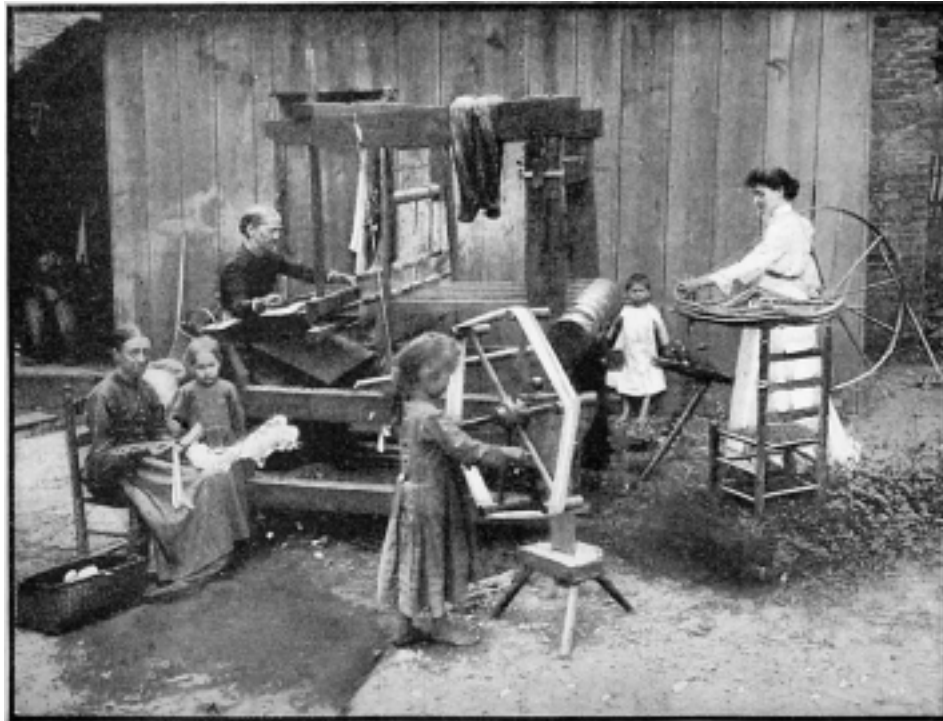


CULTIVATING COTTON IN ALABAMA

the "white-seeded," "black-seeded," and "yellow-linted." Sea Island is the most famous and highest-priced variety, but it can hardly ever be grown profitably more than fifty miles away from the Atlantic coast. This is a native of the West Indies, and has a fine and very long staple. It is a matter of history that this cotton once sold as high as two dollars a pound. This was not, as might be thought, in war times, but as long ago as 1828. In 1864 middling-grade upland cotton sold in New York for \$1.89 a pound, although three years before it had sold as low as ten cents. I do not find any quotations of Sea Island for the year 1864. Many varieties bear the name of the planter who discovered and developed them. Such are the Truitt, a well-known Georgia variety, and the Peterkin, originated in South Carolina.

The details of cotton cultivation vary in different places according to conditions of soil and climate and the variety cultivated. The plowing of the ground usually begins in February, and the planting extends from March 1 to June 10. Planting at the latter date, though, is only

in ground on which some other crop, like oats, has been harvested; and a crop of cotton will not be made after this date unless the season is particularly favorable. The cotton-rows are commonly laid out four feet apart. Various machines for planting the seed have been invented, but none are so satisfactory as a man's hand. Unless the seed is a rare and expensive variety, it is tossed broadcast into the drill. Under favorable conditions the plants appear above ground within ten days after the seed is put in, but in a dry year they may lie in the earth for weeks and still grow when rain comes. After the plants have come up and are well started they are "chopped" with a stout hoe to a "stand." This means that the extra seedlings are cut out, leaving vigorous single plants from eight to eighteen inches apart. A plow is run between the rows at frequent intervals until August, to keep the weeds down. The first blossoms appear when the plants are about fifteen inches high, which would be from the middle of May to the middle of June, according to latitude. The first bolls of the cotton-plant open about a month



A PRIMITIVE COTTON-FACTORY IN ALABAMA



THE FIRST PICKING

later, and picking begins about a month after that time.

Cotton is grown with some degree of success in all kinds of soil, but loam is reckoned the best. In Louisiana there is a famous soil called "buckshot," which is said to be better adapted to cotton than any other in this country. The name is given to it because when cultivated it breaks into a loose mass of tilth suggestive of fine-grained shot. Two bales of cotton to an acre may be raised on this soil. Cotton suffers from various diseases, to some of which have been given most singular names, such as "sore shin," "damping," and "frenching." Insects also injure it. Formerly the average

damage done each year by the cotton army-worm was estimated at fifteen millions of dollars, but poisoning with Paris green has largely done away with this pest now.

The picking of cotton is the most tedious and expensive of all the processes connected with the culture. Various machines have been invented for picking cotton, but picking by hand continues to be the most satisfactory method. The picking of one year's average crop in this country is estimated to cost not less than sixty millions of dollars. From thirty to fifty cents a hundredweight is the price paid for picking, and men, women, and children do the work. The picker wears a bag slung around his or her neck, into



AN ALABAMA VILLAGE IN COTTON MARKET TIME

which the lint is dropped. These bags are emptied into great baskets at the end of the rows. To gather two hundred or three hundred pounds of cotton is a good day's work for a picker. This, of course, is "seed cotton." After the seeds have been "ginned" out, the net weight is reduced two-thirds. Cotton that will "third" itself, as the planters say, is said to be doing well. A field should be picked over once in two or three weeks, and the season for picking lasts three months or more. Many planters make three pickings suffice for the season.

I never see a "white" cotton-field that there does not come to my mind a most unfortunate illustration used by a colored preacher in a sermon. The enthusiasm of colored congregations in the South sometimes leads the members to make audible and pertinent comments on the points in a pastor's sermon. A good but perhaps not wholly wise minister had one day preached for an hour and a quarter, when, arriving at a period in his discourse

which especially inspired him, he exclaimed: "Beloved, I see before me a ten-acre lot white for the harvest." At which a sister in the flock—whether moved by zeal or weariness seems a little uncertain—shouted: "Good Lawd, put up de bars!"

The yield of cotton varies greatly. Under the most favorable conditions two bales are harvested to an acre. Sometimes ten acres will not yield more than one bale. In Alabama an average yield is a bale to three acres with little or no fertilizer. Land which has been enriched at the rate of a hundred pounds of cotton-seed-meal and two hundred pounds of phosphate to an acre should produce from three-quarters of a bale to a bale to the acre. The quantity and kind of fertilizer which can be most profitably used vary greatly according to locality and soil. Probably five hundred pounds of fertilizer to an acre would be a reasonable quantity. Most farmers would find it profitable to plant less ground and fertilize and cultivate what they do plant more thoroughly.





TWO YOUNG PICKERS

Formerly the cotton when picked was piled up on a platform, called an "arbor," in the open air, but now it is usually taken to the gin as soon as possible. There are two kinds of gins, the "roller" and the "saw." The former has been used in India from time immemorial. It was at first a flat stone on which a wooden roller was moved by the operator's foot. Now it consists of two small rollers, one of wood and one of iron, turned by hand. These slowly press the seeds out. Five pounds of clean cotton is a day's task, and the woman who works the machine gets five cents a day wages. Various forms of this machine are in use in other countries. Before Eli Whitney invented his gin, cottonseed was picked out by hand in this country. Four pounds of clean cotton a week was the task assigned to the head of a family. This would be at the rate of a bale in two years. In the Whitney gin the seed cotton is held in a box, one side of which is a grate of steel bars. Between these bars a number of thin steel disks notched on the edges rotate rapidly. The notches catch hold

of the fiber and pull it free from the seeds. These fall to the floor. A cylinder covered with bristles revolves against the disks and takes from them the lint. A draft of air blows the lint far out of the machine, and it falls into a receptacle in which it is pressed down to be baled. The gins leave a good deal of dirt in the cotton. Some factories estimate the waste from this cause to be twenty per cent. of the weight of the bale.

Each of the big old plantations had its own gin, commonly operated by mule-power, but with the dividing up of the land into small farms gins have been built, like any other mill, as an investment, and the farmer brings his cotton to the gin as he brings his grist to mill. These gins are more apt now to be run by steam than by any other kind of power. Thirty cents per hundred pounds is an average price for the planter to pay for ginning and baling, and he furnishes his own "bagging" and "ties." The latter are the thin iron strips used to bind the bale. Twenty-five years ago planters were locating their gins over a running stream when

possible, that the despised and supposedly worthless cottonseed might be easily gotten rid of by throwing it into the water to float down stream. Now there are upwards of \$40,000,000 invested in this country alone in mills and apparatus for utilizing cottonseed in the form of oil, meal, cake, and hulls, and the value of these products is one-sixth that of the fiber.

Steam mills increase the danger from fire—the foe which the planter perhaps dreads worst of all. A bale of cotton once set on fire will burn until it is destroyed, even if it be thrown into the water, and a pile of lint cotton—fiber from which the seeds have been removed—will burn close, while, oddly enough, considering the oil in the seed, a pile of seed cotton if set on fire will flash over, and then the fire frequently will die out.

Cotton bales vary greatly in shape. Within the last few years the cylindrical bale, much more compact and smaller than the square bale—weighing about two hundred and fifty pounds—has begun to be used. Each has its advantages. The first bale is usually brought to market in Texas—the most forward State—by July 10, and the first bale in Alabama a month later. There is great strife among the planters to see who shall bring the first of the year's crop to market, and the first bale is often sold at auction for some charity. As soon as the picking is fairly under way the towns in the cotton States become centers of trade. Small villages on the railroads will handle as many as five thousand bales; larger towns, from that amount up to a hundred thousand bales. Firms in the big cities send out buyers, but much of the crop is handled by the local merchants, many of whom

now realize on store accounts which the farmers have been running for a whole year previous, secured by a mortgage on a part or all of this year's crop. These country stores boast that they can furnish anything from a cambric needle to a lumber wagon, and usually they can make the boast good. Whole families come to the village on this occasion—often the only time in the year when the women and children do come. Strings of mules or steers, hitched up one pair before another, draw the wagons, sometimes as many as five yoke of steers hitched to one cart. The head of the family sits on the tongue of the cart to drive. The women and children perch on the bales of cotton in the cart. An old, splint-bottomed chair will be tied on behind the load for "mother" to sit in going home, surrounded by the miscellaneous assortment of groceries, furniture, hardware, and dry-goods for which the cotton has been traded. "Mother" usually has a baby to bring along.

Many of these country teams come thirty or forty miles—too far for them to come and go in one day. For such as these, most Southern towns, or associations of traders, provide a public "wagon yard," a plot of ground surrounded by a wall and having stalls and sheds in which men and beasts can find shelter free of charge. In this yard at night, in cotton-market time, there may be seen camped a dozen or more outfits. The tired mules and steers hitched about the inclosure champ bundles of fodder brought from home on top of the loads of cotton. The men sit about, smoking or talking, or cook their suppers over little fires whose lights and shadows make pictures such as one looks to see only in Spain or in the East.

