

*Cotton culture
and the South*

COTTON CULTURE

AND

THE SOUTH

CONSIDERED WITH REFERENCE TO

EMIGRATION.

BY

F. W. LORING AND C. F. ATKINSON.



BOSTON:

WILLIAMS & CO., 100 WASHINGTON STREET.

1869.

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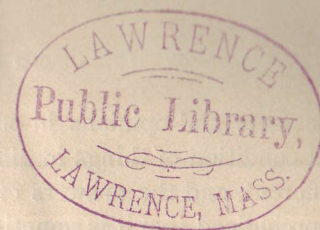
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OFFICE OF

LORING & ATKINSON,

COTTON BROKERS AND AGENTS,

No. 69 WATER STREET, cor. CONGRESS, BOSTON.

WE lately issued a circular which was widely distributed amongst the cotton-planters of the South, with the hope of getting facts relating to the cotton-interest which might be of value to the cotton consumer, and at the same time might stimulate the production of the great staple by "showing to how slight an extent the capacities of the South for its production have as yet been developed," thus furnishing information which should do something to turn *Emigration and Capital* to the cotton belt of our country. Our Circular asked for detailed facts and opinions relative to the labor, the methods of cotton culture, and the general condition and capacities of the South. The number, the universal interest, and the consistent character of the replies have been most gratifying, and show an earnest intention on the part of the writers to give accurate information which should help to build up a true prosperity in their portion of the Union. We wish to return to all our correspondents,* without exception, our hearty thanks for the fulness and uniform courtesy of their answers.

* See Appendix.

The facts and opinions in our letters are so varied, the actual condition of things in different parts of the country so different, and the answers often from sources so naturally prejudiced that it is sometimes hard to form the right deductions. In the following digest we shall print full and numerous extracts from our letters, striving to give each variety of opinion its fair voice, and also to let the differences of the various sections of the cotton-belt speak for themselves. In all our statements we have sought by a careful study of the thousand and more pages of manuscript received to deduce from them only their just conclusions.

LORING & ATKINSON.

COTTON CULTURE AND THE SOUTH

CONSIDERED WITH REFERENCE TO

EMIGRATION.

CONDITION OF LABOR.

THE consideration of cotton culture as at present conducted at the South involves the consideration of its labor.

The opinions received in answer to our circular with regard to the condition of the liberated slaves and the effectiveness of their labor vary more and are more likely to be prejudiced than in regard to any other question connected with the South. Furthermore, their actual condition varies much in different sections of the cotton belt, which increases the difficulty of justly estimating their present state and future prospects. The following extracts give full and varied views of the labor problem :

Your general proposition that the cotton lands of the South have not been estimated in quantity may be proved perhaps by a shorter process than individual testimony. Take the area of the Cotton States, at 300,000 square miles. Take the labor of the colored people at 500,000 full hands. Take the labor of the whites at 100,000, and you may, at $3\frac{1}{2}$ or $3\frac{3}{4}$ bales to the hand, get the present crop, 2,250,000 bales. Remember that the freedmen have gone to various other occupations, menial and maritime — at least to river navigation — that many have emigrated North and West, and that there was a portion lost during the war. That our labor has shrunk greatly, is shown by the low price of cotton lands and by the reduction of the

labor to the best spots on the old plantations. We need emigrant capital and labor, machinery and an improved process of culture.

MAURY CO., TEXAS.

The great problem of cotton culture just now is the growing scarcity and worthlessness of our laborers. I am a Northern man, an ex-federal officer—have paid wages and treated my hands with the utmost kindness for the last three years, but find a growing dislike to being controlled by or working for white men. They prefer to get a little patch where they can do as they choose, where they raise corn, sometimes a little cotton, and steal their meat from the woods. I am paying \$12.00 apiece per month, but have only hands enough to work half my place, and have to be with them constantly to prevent their idling away their time. Hands are so scarce that if they are offended in any way (and they are very sensitive), they leave at once, knowing they will have no difficulty in getting another place. I have had a hand threaten to leave because he was told to use one plow when he wished to use another. We are dependent on them, and they know it. I fear that next year they will not work at all. Up to this time, owing to the ravages of the worm, every Northern man who has attempted to raise cotton, as far as my knowledge goes, has lost heavily.

MONTGOMERY CO., TEXAS.

The cotton region wants people. Negroes will never make neat and careful farmers. Cotton is a tender and delicate plant. Good culture and tender care increases its yield per acre. Any delay and loss of time in the picking season is disastrous. Negroes know nothing of the value of time, and will waste the season until storms, rain and cold come upon them, when it is impossible to pick. The care bestowed upon the picking of cotton materially affects its value. Negroes are good-natured and lazy, and ninety-nine out of a hundred are satisfied with their daily bread, and are willing for the morrow literally to take care of itself. The old hands are passing away. The young ones do not learn to work. No authority is exercised by parents to teach them to work or understand the value of time, industry and economy. The women have retired from the field, and prefer to make a precarious and vicious living than to work. Disease and destitution make fearful inroads upon them. Hence the Southern people give every possible inducement to encourage immigration. They

want a permanent and fixed population of good citizens. Negroes rove from place to place. They love change, and a month's work at a place, and are reluctant to make a year engagement. White people love home, take interest in making it pleasant, comfortable—as the spot from which issue all their money and comforts.

The negroes will disappear more rapidly than immigration will appear. The crops will decline, even at the stupendous prices and fabulous returns which it will give a man for his labor. Twice the number of white men will not make as much cotton as the slave did, for, as a general rule, the slave got his meat from the West, the mule he drove from Kentucky, and frequently the bread he ate was procured in the North. The white man will provide all this at home, at the expense of half his labor taken from cotton and devoted to the provision crop. Under the old system a negro would pick more than twice the amount of cotton as is possible for any man to pick who was not raised from childhood in the cotton field, and besides the skill acquired in a lifetime. His whole time and energies was devoted to cotton picking. He had no other duties, no other occupation during the picking season. The instantaneous immigration of four millions of souls into the South would not make the cotton crop reach this year, five millions bales.

ISSAQUENA COUNTY, MISS.,

From laborers great numbers of the negroes have been transformed into tenantry, which, although it may operate so as to produce a greater quantity of cotton eventually, still it takes the profit of production out of the hands of the planters, and further discourages the emigration of persons who would come to hire laborers. As for capital there never was more of it in proportion to its demand; in fact the country is full of money, and the larger number of negroes to whom I have leased land have paid half the rent in advance.

SOUTHERN LOUISIANA.

In regard to labor the present condition is bad; the prospective is worse. Labor is more scarce, harder to procure at the present time than any time since the close of the rebellion. It is also growing less every day; miscarriage and abortions have become as popular and dear to the negro women as freedom itself, and unless these things

change the negro race will, in marvellous short time, become extinct in the South. The cities and towns are full of labor, but it is next to impossible to get them to leave these places.

We must take last year as the maximum point to which the present system of labor can be used—five bales of cotton to the hand; if the worms had not appeared possibly the crop might have gone as high as seven bales to the hand,—but then it is a question whether the hands who *make* seven bales of cotton, apiece, will gather the same—I doubt it very much. In 1860 a good cotton picker would gather from 12 to 15 bales of cotton, but under the present system I think seven bales is the *ultimatum* of their year's labor in cotton except, probably, a few isolated cases. Cotton cannot be raised for less than 20 cents per lb., and when, through any circumstances, the cotton crops of foreign countries will bring the price of the staple down to 12 and 15 cents, then cotton planting in the South (unless the system of labor is changed) will quickly decrease, and exist only in name.

We have here the finest agricultural country in the world, but we need labor and capital. There are many thousand acres of land which have been cultivated lands, well improved, and merely awaiting the time for the Levees to be built and labor to go upon it, to be as desirable farming lands as any in the world; but these lands are yearly inundated, and are fast growing up in timber again, and never will be worth anything until the Levees are rebuilt. They (these lands) can now be bought for from \$2 to \$10 per acre, owing entirely to the necessities of the owners of the same. Put up the Levees and these same inundated lands will immediately sell for from \$10 to \$50 per acre; for, in addition to their being as fertile as the Valley of the Nile, they cannot be excelled for stock raising.

In conclusion, I will say all we want is the Levees rebuilt, capital and *labor* to make this country "blossom as the rose."

UNION CO., ARKANSAS.

Among our present negro population are some very good laborers, especially such as have been trained from childhood to hard labor, but they are constantly diminishing in number; they will not control their children nor allow any one else to do so; consequently the rising generation will be worthless. My own opinion is they will gradually relapse into barbarism and disappear, as have done the Indian tribes before them, unless some compulsory system is adopted

to compel them to labor. If left to themselves, they will die in filth and rags before they will attempt an honest living.

On the subject of cotton culture, immigrants would soon learn from practical experience, the best mode of cultivation. The process is a simple one, no more difficulty than in corn or any other crop.

JEFFERSON COUNTY, ARKANSAS.

The greatest difficulty we now labor under in the cultivation of cotton is the uncertainty and unreliableness of the labor of the blacks, as few of them have any idea of the obligations of a contract, and most of them will leave you in the midst of your crop if they thought it to their interest. They will not in three-quarters of cases carry out their agreement if they thought it to their interest to break it. It is not the price of the labor, but the uncertainty of it that makes it so objectionable. Give the cotton growing States a superabundance of laborers and they can raise over *forty million of bales of cotton* in one year.

JEFFERSON CO., ARKANSAS.

Just a month ago I shipped the last of our crop from Jefferson Co. farm, and in settling with the *hands*, paid out on the plantation \$7,000, due the hands for their portion of the crop, after clothing, feeding, and paying all expenses for them; and many hands in the neighborhood had had \$1,000 and \$1,500 net cash. Land is very cheap. Nearly all are anxious to sell a portion of their land, as they cannot get it cultivated. The negroes are fast disappearing—dying from indolence, and trying to live by *politics*, huddling around the towns in hovels, with fevers and all sorts of ailings, waiting for elections or some holidays. A great many are going back to their old homes in South Carolina, Georgia, and Alabama, and also to the hills in this State, content to live on a bare sustenance of bacon and corn bread, which they can raise by easy or no labor.

WESTERN MISSISSIPPI.

In so vast a subject as the culture of cotton, which admits of so many exceptions, according to circumstances, and which depends perhaps more than any other on the proper conduct of details, it is almost impossible to give any general views. Since the war the

whole question has resolved itself into that of the efficiency of labor, all modes of treatment being subordinate.

As regards labor, the prospects are that it will steadily decline in quantity, owing to the restraints now removed from the negro population, the frequency of abortion among negro women, dying out of family relations, and want of care of the offspring. The greatest loss, however, in this region, occurred in the years 1863—4, when the negroes were received into the Union camps, where they flocked in great numbers, and died of epidemics. It is my experience and opinion that during those two years fifty per cent of the negroes in the region bordering upon the Mississippi river were lost. It is certain that afterwards, when nearly all had resought their homes, that the country had lost more than half its population; and, notwithstanding the introduction of many from the older States, the same deficiency still exists. The cry, therefore, on all sides, is for laborers, and the negro, finding himself master of the situation, instead of availing himself of the high rates and advantages offered, prefers to make use of his power to reduce his labor, rather than increase his compensation. With the present price of cotton, nearly all persons could afford to double the rates of wages if they could depend, after incurring the expenses of stocking a plantation, upon the efficiency of labor; but it seems to be admitted upon all sides, that compensation does not stimulate labor as elsewhere, the negro being controlled more through his local attachments and personal preferences, than by any pecuniary advantages. All plans for emigration, therefore, I regard of the greatest importance to this country, and for the increase of the production of cotton in the world, and I think that all experience teaches that nowhere can it be raised in such quantities, with as little labor, as here. In the choice of emigrants, I think that the Latin, rather than the Anglo Saxon races, should be preferred, as less likely to be affected by climate, nor do I think that the African emigration should be ignored, if any practical means for its introduction could be devised. I presume that it is well known on all sides that not one-tenth of the land in the Mississippi bottom has as yet been brought into cultivation, and that it is capable of producing the cotton supply of the world, if the labor were applied.

WASHINGTON COUNTY, MISS.

The freedmen work very well; I have no trouble at all; I have never had any trouble of any kind; I treat them well, clothe and feed

them well, and pay them what I promise them; settle with them as I would with a white man. I have no trouble in getting all the labor I want

YAZOO CO., MISSISSIPPI.

The labor *now* in the South, will never materially enlarge the production. For, although the black population of this country in point of intelligence is very far ahead of any similar population heretofore manumitted, it retains the innate vice or defect of all tropical people; indisposition to provide for the future by sustained industry and persevering efforts. The immediate wants of life provided for, they seem in the main to be satisfied; and are careless, or rather thoughtless, of anything beyond. Superadded to this is a fact patent to all observers, that the number of births is rapidly diminishing among them, while of the children born, much fewer of them live than heretofore. The bill of mortality among the adults, too, both during and since the late war, has been very large. This, coupled with the fact that a large number of them refuse any longer to labor in the field, has left nearly one half of the cleared land of the country untilled; and it will remain so until a tide of immigration shall flow in upon us. That this must come sooner or later no thinking man doubts. But why has it not already set in? It seems to me that capitalists have been blind to their own interests in not turning it in this direction long ago.

WESTERN MISSISSIPPI.

Free labor being all we have to depend upon to make cotton, etc., it ought to be of a good class, whose education should teach them industry—or else resort to Chinese Cooleys, who could be compelled to labor the year round, well fed and clothed.

White people make as much per hand as ever before, while the negro freedman, but half, if that. A good working white man, and a negro, also (if he would), can make and pick out ten (10) bales cotton of 450 pounds each, every year, and corn, peas, beans, wheat, etc., to feed a wife, and, say, four children. A child five years old can pick cotton.

The South is the richest country on earth. The people (just now), the poorest—no money, no rights, no voice, no friends, and Government are their enemies.

The cotton States can take 10,000,000 agriculturists, and 5,000,000 of manufacturers and mechanics, and have none too many. The free negroes are so demoralized by their enfranchisement (of which they know nothing), that they are in perpetual expectation that Government will provide for them by bestowing on them all the lands, mules, horses, cattle, etc., and therefore only work to support life, expecting to be enriched by Government and politicians. I have a freedman (formerly my slave), who has picked out, when a slave, 30 bales cotton in one season. Last year he picked three only, ending about the same period of the year. They are becoming of less value to the world every day, and will only work to cover actual wants, with few exceptions, of course. I have three families (formerly my slaves), who have remained steadily with me, who from nothing, are worth from \$1,000 to \$1,500 in money, stock, etc., to-day. They yielded to my advice. This number, out of 225 (which I was relieved of without any effort on my part); the balance are all trash, paupers, consumers, worse than army worms, and strange to say, they are quite as intelligent as the prosperous ones; but generally good slaves made poor freedmen. At this writing, Saturday, 3d February ultimo, one-fourth the plantations ought to be ploughed up, and now everything is behind. They have all quit work, and if I object, they will all quit me, and go to my nearest neighbor, who stands ready to employ them.

CENTRAL MISSISSIPPI.

Planters cannot rely upon freedmen as laborers; as a general rule they are unreliable in their contracts both as domestics and farm laborers. They are a wonder-seeking, credulous, improvident people, sometimes leaving neighborhoods *en masse*, deserting comfortable homes for something better. A very large number of finely improved tracts of land throughout the State of Mississippi cannot be cultivated the coming season for want of labor.

ISSAQUENA COUNTY, MISS.

The freedmen in this section in some instances are working as well as in former years, and on an average are doing finely. Their labor, with anything like good seasons and a fair price for the staple, will prove highly remunerative to the planter.

I divide my hands into six companies, with a foreman at the head of each one. I have succeeded in getting a great many rails split and almost my entire fencing repaired.

In consideration I allow the freedmen two acres extra land for their families to cultivate. My mules are all in fine order, and the greatest care is taken of them by the laborers.

The first year or two after emancipation they were most unmerciful to the stock. In one year I lost 8 mules through bad treatment. Last year I lost only *one* from *colic*.

TUNICA CO., MISS.

The most noticeable fact in connection with the negro, is the very few young children amongst them. On my place and that of my brother-in-law adjoining, there are about eighty negroes, and not over a half dozen children; where, before the war, there would have been from twenty-five to thirty. I think that in twenty-five years, a negro will be almost as great a curiosity as an Indian.

MONTGOMERY CO., ALA.

There is no doubt but the negroes will work well; all they want is to see some good active Yankees to lead them on in the way of work; they never saw white people work, or seldom. I have a fine farmer from Ohio who astonishes the negroes; he leads them, and works to an advantage.

MOBILE, ALABAMA.

The negroes in the cotton States are rapidly disappearing by disease—while production has almost ceased from the same cause, and this state of things will go on until the race is extinct—not as fast, perhaps, in the future as in the last four years, from the fact that the more intelligent will learn to provide for and take care of themselves.

The black labor for the crop of 1869 is not equal to that of 1868, and there is no remedy for this alarming evil, but by stimulating immigration. Again, the free negro is by no means equal to the slave for producing, from the fact that he is notoriously indolent, and will not work as white laborers do. I am clearly of the opinion that, to produce cotton, either in quantities or at prices which are desirable, we must abandon the idea of relying upon the negro, and look for white labor. The question then is, Can white men labor in this climate? I desire not only to answer this in the affirmative, but to say that they can perform more labor in the year than they do in New England, or the West. So far as health is concerned, sober, prudent people enjoy better health here than with you.

Excuse me for suggesting any political difficulties in the way of managing the negro. As effective a laborer as he is capable of, it is a point that should be understood at the North, for the good of all parties, the negro included. It is this; the people of this section of country should have the right to make all laws necessary for the good government of the citizen, and thus prevent idleness and vagrancy, which are only productive of demoralization and crime.

A gentleman from Courtland County, Ala., says labor in his neighborhood "shrinks, and goes on to say:

By the world "shrinks" I mean that the labor of the freedmen becomes more and more inefficient. Now, in 1867 they made contracts the first week in January, and commenced work on the second. In 1868 they made contracts 20th January and commenced work the next week. In 1868 they made contracts 25th January and commenced work 8th of February. I have carefully noted on the labor account of the hands, the number of days they worked in 1868 (exclusive of the wet and cold days, which were too inclement), and they averaged three days out of four, instead of six out of seven.

This year the proportion will be less of work; instead of Saturday afternoon, they give indications of resting all Saturday. Instead of a week, in 1868, for rest when the crop was laid by, they took two, and saved only a half supply of fodder, which is now worth thirty dollars per ton on the plantations. If our winters were as mild as they are in the British West Indies, and we had the same abundance of tropical fruits there would be fully as great a failure of the black labor here as there was there after emancipation. What is to make the difference? In 1860 we planted 10 acres of cotton to the hand, besides six to seven in corn. Now, although I and many of my neighbors require seven, others rest satisfied with five of cotton to the hand. It is estimated that one-half of the cleared land in this valley lies uncultivated.

BARBOUR COUNTY, ALA.

I am decidedly of the opinion that, under the present system of labor, our crops will continue to decrease every year. There are a great many planters this year who have rented a portion of their farms to the freedmen who will fail to realize anything like the crops usually

made under their own supervision — when four bales to the hand could be reasonably expected; under the renting system they will not make more than one. A very suicidal policy on the part of both planter and laborer; but why, you will ask, does the land-owner resort to this method? From the fact, often, that he cannot procure labor under any other terms, and he takes this plan to realize a *bare support* from the rent of his land. The freedman is satisfied so he can *set up for himself*, as his wants are "few and far between," and those wants he can supply himself and his half a dozen other non-producers with, if they are within five miles of his hut — with no conscience as to right of property. On account of their depredations, we who formerly raised a plentiful supply of meat and stock of every description, have had to abandon it entirely, depending wholly upon the markets of the west.

With the gradual decrease of labor, its inefficiency, and the great many disadvantages we encounter, the fact I think is very apparent that the cotton crops of this country will never exceed, if they ever reach, the crops of the last two years.

FORKLAND CO., ALABAMA.

Under the old system, we tended at least fifteen acres in cotton, and six or seven in corn, to the hand, counting women as full hands. Now we cultivate ten acres in cotton, six or seven in corn, which is tended principally by the males, girls and boys — losing about one-fourth of the labor, for women were as efficient as men — in working and picking cotton. In this respect we cannot expect any change; for it is a matter of pride with the men, to allow all exemption from labor to their wives, which encourages matrimony at a very early age among girls. The young men, too, unrestrained by parental authority, and regardless of legal prohibitions, are growing up with very idle and licentious habits. The old, trained hands are our chief reliance in making a crop. Such as were once considered second-rate, are now the best.

The rural districts are being rapidly depopulated by their preference for towns and villages. The men had rather make a precarious living by doing little jobs, and picking up things that don't belong to them, than regular daily labor. The women, to get in as house servants when they can, or secure patronage in a disreputable manner, when their personal attractions elicit notice. Railroads and steamboats

draw many from the plantation, by giving more ready wages, and the excitement of that kind of life. All such are totally demoralized, and are forever unfit for plantation service. They are unruly, insolent, and disobedient, and will not "*stick*." Such as have been to those places, and engaged in those pursuits, can find no employment by me, on *any* terms. I tried several, recently, from Mobile.

TENNESSEE.

Many of our customers report much difficulty in making contracts for labor this year. In some cases where the freedmen have money, they are not inclined to work, and others wish to lease or buy land and set up as planters on their own account. We regard this as a doubtful experiment—some of course will succeed; but, the great body of them—like children heretofore provided for, and controlled by others—unaccustomed to self reliance and managing even for themselves, they will find many difficulties arise that they will not be prepared to surmount. Should their mules or horses die, or their supplies of food or clothing give out, with no money, they will find much greater difficulty in getting aid from merchants than the successful white man with property and credit even without ready money.

BALDWIN CO., GEORGIA.

The free negroes, poor creatures, are lost. A remnant of labor yet lingers in the field, but daily diminishes; the women have quite retired, and so too have the children; while the number of negro men for the fields grow daily less, and will never be recruited, as the young negro is coming forward utterly untrained, and intolerable. 465,000 blacks will of course remain a good while if peace reigns; they cannot be soon absorbed or annihilated by 600,000 whites—nearly an equal number; but with increasing degree and great certainty, white labor is returning to the fields of Georgia.

The free negroes of Georgia will not deteriorate so fast as those of Jamaica, because they are more in the presence and competition of white men, and the country is not insular.

The labor value of the free negro, as a cotton producer, is greatly impaired by his indiscriminate political privileges, which subject him to all the low acts and corrupting appeals of demagogues in our present form of popular government. Imperial government is an imperious necessity for a country that mixes four million negroes with an equal

white population on equal terms. As our once beautiful system of States, is gone now, we need Caesar. Hail Caesar! happy if he be *Julius*; contented, if he be *Tiberius*. Anything but a negro democracy.

MIDDLE GEORGIA.

Nothing definite can be predicted in reference to the prospective condition of labor. There has been some improvement in the colored labor, especially when the white race preponderates. If confidence could be established between the races; if the farm-owner could depend on the colored people as *truly* and *reliable* laborers; if the colored people were *free* to believe that the farm-owners were their friends, would not oppress them, would deal honestly and fairly by them, prosperity would be reassured.

DANBURY COUNTY, GA.

Our negro labor is fast playing out, and in the course of a few years the negro will be worthless in the cotton fields. All the negro women are out of the fields, doing nothing, and a great many of the men are loafing around the towns; our climate is such that his wants are easily supplied, and a little work will do it, the same is true of our, or part of our, white men, and if we could get good immigrants to come and lease or buy our lands, and work on a small scale, and manure highly, it would pay.

MUSCOGEE COUNTY, GA.

The labor question is the great question at the present time with the South, and especially in connection with the cultivation of cotton, and all theories upon that question will prove failures when put in practice. The negro is the only successful laborer that can be put in the field to cultivate and gather a crop of cotton, and the reason of the scarcity of that kind of labor is because of the interposition of the Freedman's Bureau, and a few Northern adventurers coming South since the freedom of the negro, loaded with Attleboro jewelry, and telling the negro all sorts of tales as to the blessings that freedom would bring them—that, in short, there would be no more hoeing cotton and digging the potato—that they would receive forty acres of land, a mule, and plenty of provisions from the Government, if they would just vote for them or some other Radical for Congress, or any other office.

The credulous fools believed every word of it, and many of them believe it to this day; and such and similar tales not only caused all the women, boys and girls to quit the farms and gather around the villages and towns, but many of the men did the same thing, and hence the scarcity of labor—the women all set up and do nothing except watching opportunities to pilfer and steal to *eke out* a miserable existence. The mortality among the negroes has been at least three hundred per cent greater since they were made free than it was when they were slaves.

DEKALB CO., GEORGIA.

"Planters have had great difficulty in obtaining hands since the surrender, from many causes, in 1866—the idea of the negro being free was a hard one to get over, and many were disposed to put all the blame on him. Then, a great many took advantage of his ignorance, and made unfair contracts, or sold him liquor and goods on credit, and at the end of the year he only realized one fact, that he had worked hard and had nothing. In 1868, the surplus from the sale of cotton at twenty-five cents, instead of being invested in more land, and more negroes, was put into railroads, and like enterprises, which have taken thousands of hands out of the fields."

DEKALB CO., GEORGIA.

Just returned from a long tour through what is known as the cotton region of the State of Georgia. I went down there in January, and have been there until now (April 11). I am, therefore, very well prepared to reply to your circular.

After thoroughly acquainting myself with the whole State (and Georgia is in more prosperous condition than any other Southern State), it is my decided opinion that the culture of cotton, and its production, will not increase, but on the contrary, must decline, unless we can get more labor. No man ever yet labored because he loved it, and especially in the sun—and laborers can get rich too fast at cotton selling at twenty-five cents per pound, to make them stick to it. Before the war, when a planter sold his cotton, and found himself with ten to twenty thousand surplus, his first thought was to buy more land and more negroes, and thus the finest portion of our land was converted into a vast negro quarter, and it is a fact that in the richest neighborhood of Sumter Co., Ga., there was neither a church, nor a school-house.

We had no towns and villages, because these large planters bought all their supplies in New York and Louisville, and spent their surplus in Europe, and at Saratoga. Now, the negroes are paid off, and spend all they make with the storekeeper and the Jews. (I heard of a Jew selling a negro a little twenty-five cent magnet, the other day, for thirty dollars—telling him it would keep a white man from cheating him!) This is building up our towns. The planter, not knowing what to do with his surplus, is putting it into railroads and factories. This takes off thousands of hands from agricultural pursuits, for a negro won't plough at ten dollars per month, when he can get twenty dollars on a railroad; and to my knowledge, labor representing at least fifty thousand bales of cotton—is now employed on railroads in southwestern Georgia. This would all do very well if there was anybody to step in and take their places. This scramble for labor makes certain men persuade negroes to break their contracts, and thus their idea of the moral force of contracts is weakened, and labor thus becomes uncertain. These things render it certain, in my opinion, that unless we can get immigrants here from the North or from Europe, of even the present crop of cotton will decrease. It is true that there will be more cotton patches in the upper latitudes, and more cotton raised by white men, but not enough to make up for the lack of labor in the cotton belt. I am sure that there are this day ten counties in Georgia that are capable of making more cotton than is now raised in Georgia. I do not speak wildly, or without a full knowledge of what I am stating—that the State of Georgia is capable of producing, and will produce, under a well regulated system of labor, at least two million bales of cotton.

With reference to the labor question—disavowing any unfriendly feeling to the black race—for I entertain towards them only sentiments of kindness and pity—my strong convictions compel me to say, that if the world expects from them a supply of cotton, the anticipation is doomed to disappointment. Every year the number of laborers is becoming smaller, and the labor less efficient; the coming generation are not being trained to work, and there is a strong tendency to seek other employments in preference to the more laborious task of cotton planting. Cotton planting requires continuous labor during the whole year, and is the most tedious of all crops. But, admitting that by a different system of cultivation, and the help of commercial manures,

If, in addition to all this, she will also enter largely into manufacturing all the shirting, sheeting, etc., she needs, she will save an immense profit now paid out to New England on these fabrics. In 1860 the Southern States spun *one-third* of all the cotton yarns used in the whole Union, but wove *only one-twentieth* of all the cloth. Why may we not produce the cloth as largely as the yarn? There can be no doubt as to the profits.

I do not regard it as possible, even were it desirable, to increase our negro population. That race has never so rapidly multiplied anywhere, and never been found so civilized and Christianized as under the influence of constant contact with the whites of the Southern States. The guardianship of the latter having been withdrawn, the former will rapidly lapse into semi-barbarism and gradually disappear. No two distinct nations, even of the same race, ever lived peaceably together, *as equals*, under the same government. Such an instance is found nowhere in all history. If this be so of nations of the same race, how must it be with nations of different races? It has been aptly said that the Saxon race would always *exterminate* those whom they could not *subjugate*; and the fate of the American Indian illustrates it. The negro race is doomed. Its ultimate fate is but a question of time. Is it desirable to increase such a population! Would we gain anything but mere numbers, whose moral and intellectual degradation would be but food for corrupt politicians? Is it not vastly better for us to populate our waste lands with a class of whites who will have some pride of race and some regard for their political rights and duties? If the South is to be peopled with millions who are to be our equals, in the name of Heaven let it be with men of our own color and race.

OGLETHORPE COUNTY, GA.

You will never see three millions bales of cotton raised in the South again unless the labor system is improved. Why?

Answer 1st. Because one-third of the hands are *women* who *now* do not work at all.

2d. At least one-fourth of the *males* have abandoned farmwork and have congregated in towns and cities.

3d. Those who do work *now* are not more than half hands. Put all these fractions together and you have this result; seven-twelfths of the laborers are not in the *field* (I mean black labor), and the white

force (who have gone to work *with a will*), to the working colored population and perhaps you may make the sum of efficient workers sixth-twelfths, or one-half of its former number.

Our correspondents are unanimous in showing that there was a decided difficulty in obtaining hands in 1868, and that although not universal, yet it was felt more or less all over the South. More cotton was lost for want of pickers in the bottom lands last year than in the upland, owing, probably, to the latter having suffered from the ravages of the worms, although much was lost even there.

Furthermore, the general opinion seems to be that labor will be less reliable and harder to obtain this year, 1869, than last. Only two planters out of all who have filled in our blanks, or who have written to us, thought there would be *more* in the future, — they did not state whence it was to come. Finally, as additional evidence of the dearth of labor, the burden of the answers to the question, "What are the chief needs of your neighborhood?" is, Laborers, laborers, reliable laborers, and an almost universal cry for emigrants! emigrants!! — men who work with their *brains* as well as with their hands.

One may gather from the above that the condition of labor in the cotton belt is not very satisfactory, yet we are inclined to think it is better than it seems, and, without counting the hoped-for immigration, that it is slowly improving. It can be safely stated that the labor power at present is not more than one-half what it was in 1860. This decrease is due both to an actual decrease of the number of laborers as well as a decrease of *effectiveness* of those that remain, which last is shown by the decreased yield to the hand now obtainable compared with that before the war — a fact which is *very strikingly* noticed in our answers. Mr. Dickson puts it as high as "three freedmen equal

to one slave," and many would agree with him. Before the war, the best planters in Georgia and South Carolina made from 5 to 8 bales to the 1 hand. Mr. Dickson has made 11; the average was probably 5 to 7. Now, the best planters make from three to five; the average is hardly $2\frac{1}{2}$; the decrease of effectiveness, however, varies *very* much in different parts of the South; in some sections a day's labor now is equal to the same before the war. To add another evidence, we will mention the decided statistical decrease of yield to the acre, compared with *ante bellum* times, which seems to be equal to about a quarter of a bale to the acre, and which arises from many causes, but among them the inefficiency of labor holds an important place.

Some of the causes that have produced this unsatisfactory condition of the black labor on the cotton fields are shown in our letters, and are:

1st. The tendency of the plantation negroes to gather in the cities and large towns, where, as a rule, they rapidly become consumers without being producers, and contrive to earn a precarious subsistence by a little work and a little thieving.

The evidence goes to show that they seldom come back to the fields again, or at any rate it is hard to induce them to. Their condition in the country is far better than in the city, where it often is deplorably bad. We believe this to have reached its worst, and the case now to be improving.

2d. The desire of the laborer or freedman to be entirely independent of white men, and therefore the tendency to "set up for himself," usually by "squatting" on the piny lands of the uplands. Nothing could be more encouraging than this if experience proved that their labor in such cases was productive; but we regret to say that it seldom

amounts to much; they may support themselves; it does not take much to do that; but they seldom raise much to sell, and do not show that thriftiness that is necessary to successful small-farm culture. Even where there is a desire to work, and when the squatter has been a plantation hand all his life and certainly ought to know the routine of cotton raising, yet, owing to his having, in his former condition of slavery, been simply a tool, he has not learned to think for himself, and is very apt to commit some mistake in culture that hurts, perhaps spoils, his crop. The freedman as a freeman must in time learn, however, by example and experience; and doubtless the time will come when much cotton will be raised by freedman landholders, without supervision. Even now we know of exceptional cases where satisfactory results are to be seen.

3d. The fact that a very large proportion of the women have left the fields and stay at home in the cabins. *This*, in looking to the future, is a serious loss, one over which there is no control, though we believe at an emergency they would pick again for a time, and if we had 3,000,000 bales on the fields this fall and an average picking season, the evidence would show that it *could* be gathered, though it would be possible only by their help.

4th. Increased mortality and a decreased number of births. The *first* owing to ignorance in treating disease; causing a small trouble to become fatal, — inability to get medical attendance, and ignorant and superstitious use of herbs and charms, even when a doctor can be obtained; also to want of care of the children, from ignorance or wilful neglect, as well as the peculiar sensitiveness of the negro physique, which has been strongly marked by the mortality which has followed their change of condition, outward surroundings and comforts, in the passage from slavery to

freedom. (This is especially marked in those of mixed blood.) In the great "contraband" camps during the war the mortality, due chiefly to this cause, was frightful. But as the negro grows accustomed to his new condition the tendency disappears.

The *second* owing to prostitution and abortion, which, in the cities, and to a less extent in the country, is frightfully prevalent.

5th. Political excitement has in some parts of the cotton belt very seriously interfered with work.

6th. The desertion of the cotton fields for other occupations — such as work on railroads, &c. It is estimated that hands representing 50,000 bales are working on railroads in S. W. Georgia, beside which the *large* number of new railroads that are being built in other parts of the South, are constructed chiefly by black labor.

7th. The effect of the possession of money on the freedman. While largely remunerative returns from labor stimulate the white man to greater exertions, the effect of the possession of money on the freedman is not yet the same. When he gets his wages, he likes to "*loaf*" until it is spent, a tendency which is aggravated by the hot climate, and which is particularly unfortunate in cotton raising, which requires such *continuous* labor.

8th. The loss of life during the war. The white labor available for cotton raising before the war bore, of course, a very small proportion to the black, and the war undoubtedly reduced this supply, such as it was. Mortality among the negroes also was great, both in the camps, where they were used as servants, teamsters, &c., as well as on the immense fortifications constructed throughout the South. In both cases they were herded together, and their ways of life entirely changed so that disease was unchecked.

Such are some of the causes which have reduced the *amount* of labor; the causes which have reduced its quality can be easily seen, and are discussed by those better qualified than we. The change from slavery to freedom, the overturning of the old political structure and building up a new system of labor and local government, have caused it, combined with the laziness caused by a hot climate, and the ease of getting a subsistence. Thus the indolence of the negro has free scope, now that he has power to choose whether to work or be idle. It yet remains to be seen what will be the ultimate effect of freedom upon him.

What are the remedies for the present unsatisfactory condition of labor? Some of them are:

1. More confidence and better relation between employer and employed.
2. Liberal use of fertilizers, both home-made and bought. Free salt to be used as a fertilizer.
3. Improvement in the method of culture, use of improved tools, labor-saving machines, and more system and economy on the farm.

And the following changes in the general condition of the South.

4. Political quiet and stability.
5. Education of the young.
6. Immigration of labor and capital.
7. A change from the old plantation system to new methods; prominent—we think *chief*—among which stand division into and cultivation of "*small farms*."

RELATION BETWEEN EMPLOYER AND EMPLOYED.

There are two systems of employing laborers at the South, by share and by wages. In the *share* system the usual arrangement is that the laborer receives *half* the corn

and cotton when he "finds" himself. If rations are given they reduce the share of the laborer to *one-third* or *one-quarter*. At times on the *share* system, the labor goes against the land, the laborer and land-owner dividing all other expenses between them. In the above cases, the usual practice is for the employer to supply cabin and fuel for his laborer (with a garden patch free of rent, for his vegetables, etc.) and tools, seed, teams and feed for the same. But frequently the laborer bears half the cost of seed and fodder — in some instances, even half the cost of repairs of tools.

The usual weekly ration is four pounds mess pork or bacon; twelve pounds corn meal (sometimes seven and one-half pounds corn, and three and one-half pounds white flour); one pint of molasses; often one-half pound sugar and one-fourth pound coffee is added. This whole ration is valued at about one dollar and fifty cents.*

Where the land-owner gives *only* the land, the laborer becomes practically a tenant, paying *one-quarter* of the cotton, and *one-third* of the corn, as rent, and keeping fences, etc., in repair, and finding his own teams, tools, seed, etc. If the land-owner furnishes the latter, the crops are divided.

In the wages system the monthly pay varies from five

* Yet another system has been pursued, this and last season, by some planters — that of fencing off the plantation into lots of say fifty acres each, with cabins a quarter of a mile or so apart, placed in each lot near the woods, so that the laborer can keep hogs, and fronting on a main avenue. Each lot is cultivated by a squad of eight to ten laborers, who own the teams, and feed themselves — the land-owner feeding the mules — and receiving one-half the crops, in the cultivation of which he has supervision. It is presumed that the fact of the laborer owning the teams insures better treatment, as the negro is frequently accused of cruelty to animals when he has no pecuniary interest.

Some such arrangements as these have been found to work very successfully indeed, and we find the "tenant system for freedmen," as it is called, in operation to a greater or less extent in all parts of the South, and growing in favor. It is a sort of connecting link between the old gang plantation system and the small farm or peasant system.

to fifteen dollars, sometimes more, according to the value of the hand, and to whether rations are given or not, — women commanding less than men. Payments are, in some cases, made yearly — pay-day coming just before Christmas. Now and then planters give the hands half of each week, and all the land he can cultivate, to himself, paying wages for the remaining three days.

Col. Lockett's system, of Georgia, has some peculiarities which may be of interest. We copy from the "Albany News":

Col. Lockett hires exclusively by the year, and pays his green-backs at the end of each quarter. He classifies laborers and hires accordingly, stipulating the wages for first, second and third classes; and adds thereto one ration — four pounds of bacon and one peck of meal to the laborer, per week. He ignores the co-partnership or share plan altogether, and the peace, good order, contentment and success of his plan demonstrate it as the true policy.

When he has contracted with the laborer, he simplifies the contract by reducing the amount agreed upon to per diem pay. Thus, if he agrees to pay a first-class hand \$175 for the year's work, he runs the working days through it, and the laborer learns that he is to get 56 cents per day, or \$3 36 every Saturday. This simplification is not only necessary to enable the simple-minded laborer to keep his own accounts, but is necessary to enable the manager to keep a correct time book, for the time is still further divided into hours and half hours, and the laborer knows that he is docked by the manager for every hour and even half hour he loses during working hours.

This system stimulates a determination on the part of first-class hands to retain that high distinction, and operates as an incentive to the lower classes to merit promotion; while the docking, or, as they call it, "ducking," inspires a wholesome fear of falling short of the \$3 36 at the close of the week.

The ration is furnished only to the regular hired laborers, but provisions are kept on the place and furnished to them for the non-laboring members of their families, at an advance on cost just sufficient to cover expenses and interest on money expended therefor.

Comfortable houses are provided for their families, free of charge, and garden spots are allotted to them.

At the end of each quarter the pay-rolls and money are ready, and every laborer is paid the last cent that is due. No store accounts or other indebtedness are rung in in payment, but what is due is paid up in money, and a whole day is allowed them to frolic and spend it if they choose. They are permitted to use the mules and wagons and go whithersoever they please. Of course they all go to town—except, perhaps, a few of the more provident and thrifty—have a good time, spend their money, and rejoice in the privilege.

Whenever a laborer disobeys the manager's orders, or fails in any way to do his duty, and there is a conflict between him and the manager, he has the right of appeal to Col. Lockett, who is the final judge, and who is as scrupulous and rigid in meting out justice as the most impartial judge that ever wore the ermine. This every laborer in his employment knows full well, and he knows, too, that when the decision bids him go, it is irreversible, and that he must go.

These rules work harmoniously, preserve discipline, encourage industry, and promote contentment and happiness. The burthens of the field are borne with cheerfulness, work is performed with a quick step and a light heart, and employer and employee reciprocate care for each other's interest and due regard for each other's welfare.

Both these systems have their advantages and disadvantages. Some of the advantages of the share system are, that,*

1. It stimulates industry by giving the laborer an interest and pride in the crop. It has been found by experience that comparatively a small part of the laborers are influenced by these stimulants, but with this small class they certainly have a positive existence.

2. It is regarded by the laborer as a higher form of contract, and is, therefore, more likely to secure labor, especially in undesirable localities.

* We have been much assisted in the following by Mr. W. H. Evans' admirable pages before the Farmer's Club of Society Hill, South Carolina, which is by far the best analysis of the subject we have seen.

3. It gives the laborer a motive to protect the crop.
4. It does not subject the farmer to loss from a failure of, or a decline in, value of his crop.
5. It secures laborers for the year, with less likelihood of his breaking the contract, a thing he sometimes likes to do when the hard work begins.

Some of the disadvantages of the share system are—

1. The difficulty of discharging hands when they become inefficient or refractory.

* Complaint is made that though the contract generally provides that the hand may be discharged, yet the practical difficulties attending it have been so great that the farmer has, perhaps wisely, submitted to almost any imposition, rather than attempt the doubtful expedient of a discharge, with its attendant evils of a personal issue with the hand, or an arraignment before a bureau, or a court, where justice is generally administered solely in the interest of the laborer."

2. The great difficulty of carrying on the general work of the farm, the tendency being to drift into a mere system of cropping, the most pernicious of all systems under which the labor of a country has ever been employed—a system that leads to idleness on the part of the laborer for a large part of the year, to indolence and indifference on the part of the farm owner, to decay and ruin in the farm, and a general decline in the productive resources of the country.

3. The annoyance and perplexity of harvesting and marketing the crop, requiring the gin-house to be subdivided, and leading to great loss of time in ginning and marketing the crop. Also, settlements are often unsatisfactory at present, on account of the ignorance of the laborer, and his tendency to suspect unfair dealing.

4. The disadvantage of having the laborers dictate

I have the best way to work my hands ; it is to lay off the land to the different families and direct how much to put in corn and how much in cotton.

The wages system is preferable, because one can get by that system some few improvements made on his place, such as ditching, fencing, etc., while by the share system it is impossible to get any work done cheerfully outside of the cotton and corn fields.

I prefer part wages and part time and land, but a share in the crop is the universal plan ; negroes prefer it and I am forced to adopt it. Can't choose your system. Have to do what negroes want. They control this matter entirely.

I think money wages system is best, as it secures the labor for twelve months, whereas, on the crop system, the laborer is released as soon as crop is gathered, although they are hired for the year.

Wages are the only successful method of controlling hands. Under the share system, the hands feel themselves to be part owners, and entitled to dictate, and will do nothing on the plantation except at the crop. No improvements can be made under this system.

Wages are best. When they are employed for a part of the crop, they invariably claim their time as their own, much of which they waste. And, again, they wish to cultivate crops according to their own notions, which are seldom right.

Money wages, at ten to twelve dollars per month, are best, if the hands could be kept at work ; there being no restraint, they quit when they please, go off to the villages, hunting, fishing or sleeping, especially in the summer, when labor is most needed.

I find that men who deal fair and square with the freedmen get as many as they want. The freedmen do not like to live with a poor man, as they say, or one that never owned them in slave times.

There was difficulty in obtaining hands for last crop only to a limited extent, from want of confidence in landlords. Liberal and fair dealing insures labor.

In obtaining hands for last crop there was but little difficulty where the laborers were paid and well treated. Some could get few, if any,

on account of their bad faith to the laborer and attempts to keep him from voting as he wished.

Those who have tried both systems say that paying wages is the best and I am satisfied it is, when the planter attends to his business in person and stays closely with his laborers.

In the present irregular and uncertain price of cotton, general demoralization and want of good laws and their enforcement, the share system works best.

As to the present condition of things, in regard to the two above systems, neither seems to work very well, the planter often changing at the end of the year, both he as well as the laborer, being tired of whichever system was used. Great complaint is made of the freedman not keeping to the contract, leaving at a crisis, perhaps from some real or supposed grievance, which, in a culture that requires such continuous work, is serious, and may be fatal. Often the grievance is only imaginary, as the liberated slave, seems naturally enough, to suspect almost every one, and is not yet sufficiently educated to understand the nature of a contract. There is need, too, of just and wholesome laws for the enforcement of contracts in the interest of both parties, for the negro is not always the only contracting party who breaks faith and acts unfairly ; there seems to be a better condition of things in respect to contracts this year than the last.

The balance of preference seems to be in favor of giving the laborer a share of the crop, and this is the system in most general use ; nearly two hundred thousand out of more than a quarter of a million of acres from which we have heard are cultivated under it, yet, with the recommendation of this course, comes constantly, we might say always, the expression of a preference for paying

wages, as giving the farmer control over his labor, and for other reasons stated above, and to this form most will, doubtless return, should the price of cotton seriously decline. Perhaps it would be better to say that the laborer under the stimulus of the present excessive profit on the cost of the production of cotton, demands his pay in kind — but he thus becomes practically a speculator in cotton, and should he get “bitten” by a decline, he will wish to return to regular wages. Such a return would be very valuable, by making the planter economical of labor, thus releasing a portion of what he now employs, which would then be added to the available amount, while what remains with him would be improved in quality.

The conclusions arrived at are, therefore, that the return to the wages system, the enactment and enforcement of strict laws, compelling the carrying out of contracts, and an honest treatment of the freedmen, will do much to increase the quantity and improve the quality of the labor now in the South.

MANURE.

The second remedy to counteract the unsatisfactory condition of labor is the liberal use of fertilizers to increase the quantity of lint to the acre by returning to the soil the mineral elements taken by repeated crops, or by supplying the constituents necessary to the plants that are absent. Only the richest *new* soils contain all the constituents necessary, in sufficiently liberal quantities and in a soluble form to nourish a full crop, and the yield can always be improved by adding those that are wanting. What then must be the need of an upland cotton field, worked for years under a system of slavery, that *cropped* year after year. It is only on account of the slow exhaustive nature

of the cotton plant, and of the great fertility of the cotton belt, that the uplands were not entirely exhausted long ago; as it was, the planter had to seek new lands continually, and even had to cast his eyes on Mexico as a future cotton field.

The following list shows the position of the cotton plant compared with other crops in exhaustive power:

Amount of mineral matter in 100 lbs. of various plants and tubers compared with the various parts of the cotton plant:

Cotton fibre	1.3 lbs.
Cotton-seed	3.8 “
Cotton stalks	3.1 “
Potato roots	4.1 “
Turnips	12. “
Turnips, whole plant	15. “
Carrot	8. “
Carrot, whole plant	17.1 “
Wheat, straw and stem	5.4 “
Wheat, grains and seeds	2.0 “
Oats, straw and stem	5.3 “
Oats, grains and seeds	3.3 “
Peas	2.7 “
Barley	2.3 “
White clover	7.2 “
Timothy	7.1 “

Or put in another form, if the fibre alone is taken off the ground (as it alone should be, for the seeds should be replaced either directly or through the cattle), you have only 6½ lbs. removed from an acre (at 1 bale to the acre), whilst a crop of wheat on the same land would take 17.65 lbs., potatoes, 163 lbs., and beets, 458 lbs. of mineral matter, and that acre would be by that much impoverished and less capable of raising a crop the next year.

In spite of this slow exhaustion of the mineral elements

Through the politeness of Gen. Walker we are able to give the following:

Statement of Salt imported into the United States during the fiscal year ended June 30, 1869.

	NORTHERN PORTS.		SOUTHERN PORTS.		RATE OF DUTY.	Est'd Duty on Imports.
	POUNDS.	DOLLARS.	POUNDS.	DOLLARS.		
Salt in bulk,	274,106,569	368,874	22,183,195	39,494	@ 18 cts. $\$$ 100 lbs.	533,321 58
Salt in bags,	154,415,435	560,194	172,826,536	414,525	@ 24 " "	758,380 73
Total,	428,522,004	929,068	195,009,731	454,019		1,291,702 31

TREASURY DEPARTMENT,
BUREAU OF STATISTICS,
May 17, 1869.

FRANCIS A. WALKER,
Deputy Spec. Com. in charge.

APPENDIX G.

BOSTON, JULY 14, 1869.

MESSRS. LORING & ATKINSON :

Dear Sirs : It would appear from the replies to your circular that salt is one of the most essential ingredients in a good manure for cotton.

If quicklime is slacked with *very* salt water, it forms a "muriate of lime," and when applied to the compost heap, or the pile of rotting cotton seed, it will *not* drive off the ammonia as the caustic alkali or lime will if applied without the salt.

In order to make this cheap muriate of lime, the salt or brine from the domestic pork barrel may be used as far as it will go ; or, upon the coast, concentrated sea water may be used ; or crude salt may be obtained from the salt beds of Louisiana. For this purpose the refining process would be an entire waste.

In order to avoid the excessive duties upon foreign salt, might not salt be treated in a similar manner to the one adopted in England with alcohol, in order to save the excise tax ? I think it is called "methylating."

If Turks Island salt were mixed with lime made from the coral of which the islands are composed, might it not be entered as a manure free of duty ? Its value as salt would be destroyed. Or if treated with creosote or carbolic acid, it would not only cease to be salt and become a manure, but also an exterminator of grubs, boll worms, and all other noxious insects.

I make these suggestions without much chemical knowledge, and may have made some blunders. This much, however, is certain, that salt can be chemically treated at very little expense so as to change it from salt to an article fit only for manure, and as such entered free of duty.

E. A.

APPENDIX H.

It is said there is no possibility of gathering the cotton crop by any labor-saving *machine* ; that the human hand must gather that which the human eye judges fit for picking. But in one of our letters the picking of the whole crop at once is suggested at some season, near the first frost for instance, when the majority of the bolls should be at full maturity ; and it seems possible that a larger portion of the crop of a great plantation might be saved in this manner, and at less cost, — the cotton

plant being cut with a sickle close to the roots, and the bolls threshed off into a wagon which should make the circuit of the rows. The seeds, cotton and trash, thus collected, are then to be passed through a thresher or Van Winkle opener to remove the refuse dirt and trash, after which the gin would receive it, and fit it for market.

This method has, we believe, been put in practical operation by a skilful Arkansas planter for the balance of his crop after the first frost. On great plantations much more cotton might be planted than could be gathered in the ordinary way, and some such method be used with economy in the picking season, leaving more time for other crops.

APPENDIX K.

Table of the supply and consumption of cotton in all Europe and the United States, stated for a comparison of the three years, 1858-59 to 1860-61, with the two years, 1866-67 and 1867-68, the year ending August 31st in the United States, and September 30th, in Europe.*

YEARS.	Stocks at beginning of year. — Europe and United States.	Crops of United States.	Imports to Europe of other sorts.	Total Supply. — Europe and the United States.	Stocks at end of Season.	Consumption. — Europe and United States.	
	BALES.	BALES.	BALES.	BALES.	BALES.	BALES.	POUNDS.
1858-59	746,000	4,919,000	841,000	5,606,000	900,000	4,706,000	1,976,520,000
1859-60	900,000	4,861,000	994,000	6,775,000	1,472,000	5,283,000	2,284,901,000
1860-61	1,472,000	3,850,000	1,058,000	6,380,000	1,112,500	5,267,500	2,212,350,000
1866-67	1,426,700	2,319,000	2,601,000	6,346,700	1,172,000	5,174,700	1,893,940,000
1867-68	1,172,000	2,600,000	2,550,000	6,322,000	651,400	5,670,600	2,094,105,000

* From the report lately issued of B. F. Nourse, Esq., Honorary Commissioner from the United States to the Paris Exposition of 1867.

While the number of *bales* consumed during the last year exceeds that of 1859-60 (the largest previous to the year 1867-68) by 387,600, the number of *pounds* consumed the last year was less than that of 1859-60 by 190,896,000, equal to 518,000 bales of the average weight of the last year. This exhibits the falling off in the average weight of bales since the proportion of American supply fell from seven-eighths to one-half of the whole supply.

The consumption of cotton in Europe and the United States during the last year, 1867-68, shows an increase upon the preceding year, 1866-67, of 495,900 bales, or 200,165,000 pounds.

APPENDIX L.

Cotton Crop of the United States for the years from 1822 to 1868 inclusive; taken from the Cotton Statement of Messrs. Wm. P. Wright & Co., of New York:

Year.	Crop.	Year.	Crop.	Year.	Crop.
.....	.....	1850-1	2,355,257	.....	.....
1868-9 . . . . .	.....	1849-50	2,096,706	1835-6	1,360,725
1867-8	2,498,895	1848-9	2,728,596	1834-5	1,254,328
1866-7	1,951,988	1847-8	2,347,634	1833-4	1,205,394
1865-6	2,151,043	1846-7	1,778,651	1832-3	1,070,438
1860-1	3,656,086	1845-6	2,100,537	1831-2	987,477
1859-60	4,675,770	1844-5	2,394,503	1830-1	1,038,848
1858-9	3,851,481	1843-4	2,030,409	1829-30	976,845
1857-8	3,113,962	1842-3	2,378,875	1828-9	857,744
1856-7	2,939,519	1841-2	1,683,574	1827-8	720,693
1855-6	3,527,845	1840-1	1,634,945	1826-7	957,281
1854-5	2,847,339	1839-40	2,177,835	1825-6	720,027
1853-4	2,939,027	1838-9	1,360,532	1824-5	569,249
1852-3	3,262,882	1837-8	1,801,497	1823-4	569,158
1851-2	3,015,029	1836-7	1,422,930	1822-3	495,000

WE would call attention to the annexed Advertisements, which the following Extracts from a Circular issued by our Publishers will explain.

TO ADVERTISERS.

"A pamphlet of about one hundred octavo pages is about to be printed in this city, by a firm engaged in the COTTON BUSINESS, upon the present condition and future wants of those engaged in the Cultivation of Cotton.

"The original plan of the gentlemen engaged in its compilation was to print an inexpensive business Circular, calculated to promote emigration to the Cotton States; but the information received by them, in answer to a series of minute inquiries, has become so voluminous as to make it necessary for them to print an expensive pamphlet.

"An edition of THREE THOUSAND will be issued, for *gratuitous circulation*. They will be sent to Planters, Cotton Factors, and Cotton Spinners, and several hundred will be sent to England and to Germany.

"In order to defray the cost of printing and circulating this document, it is proposed to append a few pages of first-class Advertisements. All the funds they obtain will be so applied; and additional copies beyond the first edition, to the extent of the demand for them, will be printed and circulated, if warranted by the receipts from advertisements." * * * * *

A. WILLIAMS & CO.,
BOOKSELLERS,

No. 100 WASHINGTON STREET.

Boston, July 10, 1869.

The attention of Insurers is Invited.

**INDEPENDENT INSURANCE COMPANY
OF BOSTON.**

CHARTERED, MARCH 1867.

Cash Capital, - - - \$300,000.
Assets, over - - - 550,000.

INSURES

DWELLINGS, FURNITURE,

Cotton and Woollen Mills,

MACHINE SHOPS,

And other Manufactories. Leases and Rents at equitable rates.

Also,

Marine and Inland Navigation Risks

taken on favorable terms.

DIRECTORS.

GEO. O. HOVEY, (Firm of J. C. Howe & Co.)
C. W. FREELAND, (Firm C. W. Freeland, Beard
& Co.)

JOHN S. TYLER, (28 State Street).
EDW. ATKINSON, (Treas. Indian Orchard Mills.)
J. H. COTTON, (Treas. American Tube Works.)

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& Co.)
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Co.)

JAS. L. LITTLE, (Firm of Jas. L. Little & Co.)
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& Co.)

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WILLIAM MIXTER, (Merchant).
ISAAC W. HOW, (Merchant).

GEO. O. HOVEY, Pres. C. W. FREELAND, Vice-Pres.

EDWARD ATKINSON, Sec'y.

GEO. A. EASTMAN, Asst. Sec'y. GEO. S. BULLENS, Treas.

ISAAC F. DOBSON, Gen. Agent.

C. W. SPROAT, Special Agent.

Agencies in many of the principal cities throughout the
Eastern, Middle, and Western States.

THAYER, BRIGHAM & CO.,

GENERAL COMMISSION MERCHANTS,

No. 32 INDIA STREET,

BOSTON.

CHAS. L. THAYER.

JOSEPH L. BRIGHAM.

ROYAL P. BARRY.

*Liberal Cash advances made on Shipments of
COTTON and other Southern products.*

THE BOYLSTON

Fire and Marine Insurance Co.,

Gives notice that the amount of the Capital paid in and invested is

\$300,000,

and they continue to insure against **FIRE** and **MARINE RISKS**,
not exceeding **\$30,000** on any one risk, at their Office,

No. 45 STATE STREET, in BOSTON.

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No. 1 BATH STREET,

BOSTON,

MANUFACTURERS AND DEALERS IN EVERY DESCRIPTION OF

STEAM AND GAS PIPE,

ARE PREPARED TO WARM

Factories and Public Buildings,

WITH


STEAM,

after the most approved manner. An experience of twenty-five years in this business is a guarantee of success. Plans and estimates made, and work done in any State in the Union.

GAS WORKS

CONSTRUCTED BOTH FOR

COAL AND GASOLINE.

SEND FOR CIRCULAR. 

3

THE MASSACHUSETTS

Institute of Technology

Provides a Four Years' course of Scientific and Literary Studies and Practical Exercises, embracing pure and applied Mathematics, the Physical and Natural Sciences, with their applications, Drawing, the English Language, Mental and Political Science, FRENCH and GERMAN.

The course is so selected and arranged as to offer a LIBERAL AND PRACTICAL EDUCATION in preparation for active pursuits, as well as a thorough training for the professions of the CIVIL AND MECHANICAL ENGINEER, CHEMIST, METALLURGIST, ENGINEER OF MINES, ARCHITECT, AND TEACHER OF SCIENCE.

The Institute is provided with a large and costly building, and is well equipped with apparatus. There are twenty Professors and Instructors. Number of Students during the past year, one hundred and seventy-two.

Examination for Admission, Thursday, September 30, 1869. Candidates must be sixteen years of age, and must pass a satisfactory examination in Arithmetic, Plain Geometry, as much of Algebra as precedes Equations of the Second Degree, English Grammar, and Geography.

For Catalogues, apply to Dr. SAMUEL KNEELAND, Secretary, Massachusetts Institute of Technology, Boylston Street, Boston.

4

WM. P. SARGENT & CO.,
Carriage Builders,

WAREROOMS:

155 TREMONT STREET,

(NEW MARBLE FRONT BUILDING,)

MANUFACTORY AND SALESROOMS:

14 to 22 SUDBURY STREET,
BOSTON,

INVITE ATTENTION TO THEIR NEW AND ELEGANT DESIGNS OF

Coaches, Clarences, Landaus, Landaulettes, Coupes, Barouches,
Clarence Bretts, Victoria's, Rockaways, Phaetons, Dog Carts, Carry-
alls, Top and No-Top Buggies, Jumpseats, Brownell Style
Wagons, Beach Wagons, Boston Chaises, etc.,

AT PRICES WHICH CANNOT FAIL TO SUIT PURCHASERS.

BOSTON BELTING COMPANY,

INCORPORATED, 1845.

ORIGINAL MANUFACTURERS OF

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Steam Packing and Engine Hose.

The Belting being made of heavy *Cotton Duck* coated with the best of India Rubber, and finished with the Patent smooth surface, it is unaffected by *Heat, Cold* or *Moisture*, and is much preferred to *Leather* or that of any other material for Saw-Mills, Flouring-Mills, Elevators, Gin-Bands, Agricultural Machines, and other Mechanical purposes.

INDIA RUBBER HOSE,

Of all sizes and of superior quality, suitable for CONDUCTING AND HYDRANT PURPOSES, and for Leading and Suction Hose for Fire Engines.
The Suction Hose is made by a greatly improved process—invented and patented by ourselves—and it excels every other make, for service and efficiency.

STEAM-PACKING,

Prepared to stand a high degree of heat, is used in preference to any other article by the most skilful Engineers and Machinists, for Manhole-Plates, Piston-Rods, Steam-Joints, Steam-Chests, Cylinder-Heads, and Stuffing-Boxes, and for all parts of Machinery where packing is necessary.

JOHN G. TAPPAN & CO., General Agents,

57 Summer Street, corner of Chauncy Street, Boston.

SPRAGUE, SOULE & CO.,
COTTON COMMISSION MERCHANTS,

70 LONG WHARF,

BOSTON.

Liberal advances made upon Consignments.

NEW ENGLAND

MUTUAL MARINE INSURANCE COMPANY,

INCORPORATED, 1839.

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Assets (exceeding) \$1,000,000.

Insure against **MARINE, FIRE,** and **INLAND NAVIGATION RISKS** to an amount not exceeding \$30,000 on any one Risk.

GEORGE C. LORD, President.

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C. F. Atkinson.

LORING & ATKINSON,

COTTON BROKERS AND AGENTS,

Offer their services for the purchase of cotton, on orders, at the various ports, through the following houses, for whom they act as agents:

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" " "	MOBILE.
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B. S. DUNBAR, Esq.,	AUGUSTA.
Messrs. EDMANDS, GARDNER & CO.,	SAVANNAH,
	[And interior points.
Messrs. EPPING & HANSERD,	COLUMBUS.
Messrs. MCNEILL, WRIGHT & SANDERS,	LOUISVILLE.
BENJ. BABB, Esq.,	MEMPHIS.
Messrs. TAYLOR & BROTHER,	CINCINNATI.
Messrs. HAZARD & RHODES,	PROVIDENCE.
W. H. BRODIE, Esq.,	NEW YORK.

Buying strictly on commission, they can guarantee faithful attention and despatch to all business intrusted to them.

Office, - - 69 Water Street, BOSTON.

INCORPORATED 1835. OFFICE OF THE DELAWARE MUTUAL SAFETY INSURANCE CO.

ASSETS OF THE COMPANY,

NOVEMBER 1, 1868.

\$200,000	United States Five Per cent. Loan, 10-40's,	\$208,500 00
120,000	" " Six " " 1881,	136,800 00
50,000	" " Six " " (for Pacific Railroad,)	50,000 00
200,000	State of Pennsylvania Six Per cent. Loan,	211,375 00
125,000	City of Philadelphia Six Per cent. Loan, (exempt from tax,)	128,594 00
50,000	State of New Jersey Six " "	51,500 00
20,000	Pennsylvania Railroad First Mortgage Six Per cent. Bonds,	20,200 00
25,000	" " Second " "	24,000 00
25,000	Western Pennsylvania Railroad Mortgage Six Per cent. Bonds, (Penn. R. R. guarantee,)	20,625 00
30,000	State of Tennessee Five Per cent. Loan,	21,000 00
7,000	" " Six " "	5,031 25
15,000	Germantown Gas Company, Principal and Interest guaranteed by the City of Philadelphia, 300 Shares Stock,	15,000 00 11,300 00
10,000	Pennsylvania Railroad Company, 200 " "	3,500 00
5,000	North Pennsylvania Railroad Company, 100 " "	15,000 00
20,000	Philadelphia and Southern Mail Steamship Co. 80 " "	207,000 00
207,900	Loans on Bond and Mortgage, first liens on City Properties,	
\$1,109,900	Par. Cost, \$1,093,604 26. Market Value, \$1,130,325 25	
	Real Estate,	36,000 00
	Bills Receivable for Insurance made,	322,486 94
	Balances due at Agencies. — Premiums on Marine Policies. —	
	Accrued Interest and other debts due the Company,	40,178 88
	Stock and Scrip of sundry Corporations, \$3,156 00. Estimated Value,	1,813 00
	Cash in Bank, \$116,150 08	
	" in Drawer, 418 65	
		116,563 73
		<u>\$1,647,367 80</u>

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THOMAS C. HAND,	GEORGE G. LEIPER,	EDWARD LAFOURCADE,
JOHN C. DAVIS,	HUGH CRAIG,	JACOB RIEGEL,
EDMUND A. SOUDER,	JOHN D. TAYLOR,	JACOB P. JONES,
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WILLIAM C. LUDWIG,	H. JONES BROOKE,	D. T. MORGAN, "
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HENRY LYLURN, <i>Secretary.</i>	THOMAS C. HAND, <i>President.</i>	
HENRY BALL, <i>Asst Secretary.</i>	JOHN C. DAVIS, <i>Vice-President.</i>	

Scrip Dividends made by this Company, since the establishment of the Boston Agency.

1858, 25 per cent.	1861, 25 per cent.	1864, 40 per cent.	1867, 25 per cent.
1859, 25 per cent.	1862, 40 per cent.	1865, 40 per cent.	1868, 30 per cent.
1860, 25 per cent.	1863, 40 per cent.	1866, 20 per cent.	

Of the above dividends all have been redeemed in cash, except the years 1865 and 1868.

BOSTON AGENCY, No. 31 KILBY STREET.

Applications for Marine, Inland, and Fire Insurance received, and Policies issued by
WM. V. HUTCHINGS, Agent, and WM. H. VINCENT.

Adapted to high or low falls; streams subject to Back water, or the flow of Tides. In the Drouth of Summer they excel all other Hydraulic Motors in Economy of Water.

SWAIN'S

Patent

TURBINE WATER WHEELS.

The only wheels made on correct principles, which adapts them to locations with great variations in the supply of Water, or amount of work, with its ECONOMICAL USE.

They are the best made and most durable Wheel in the market.

Nearly as sensitive as a steam engine, and regulate easily.

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SWAIN TURBINE CO.

36 Kilby Street, Boston,

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SWAIN'S WHEEL FOR WOOD FLUME.

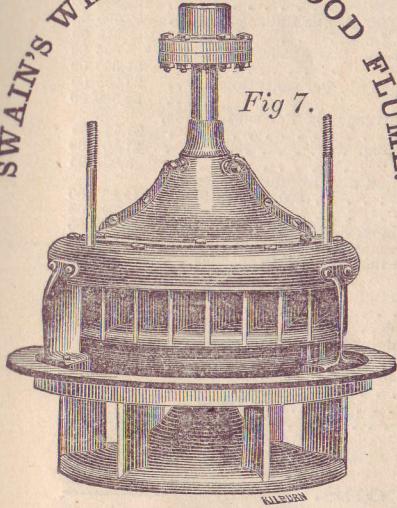
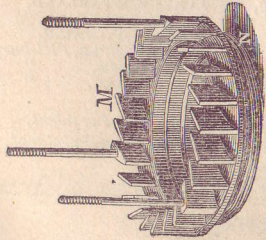


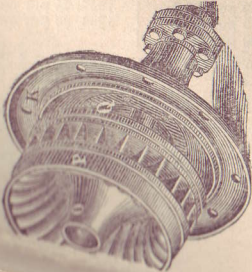
Fig. 7.

SWAIN'S

Fig. 6.



Gate,



Wheel,

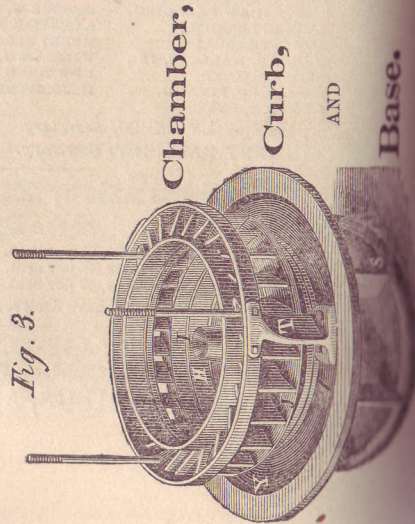
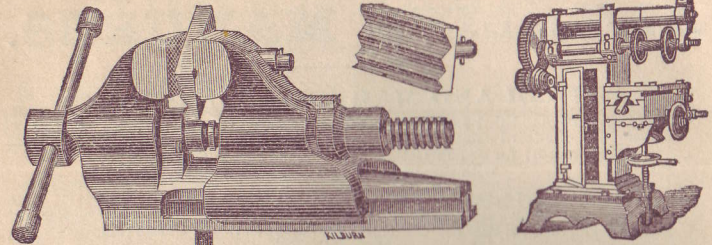


Fig. 3.

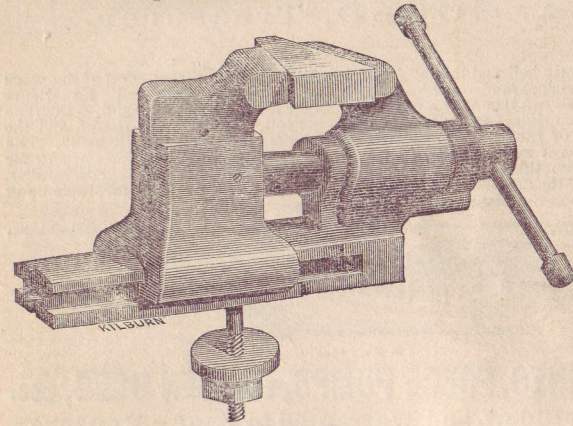
Chamber,
Curb,
AND
Base.



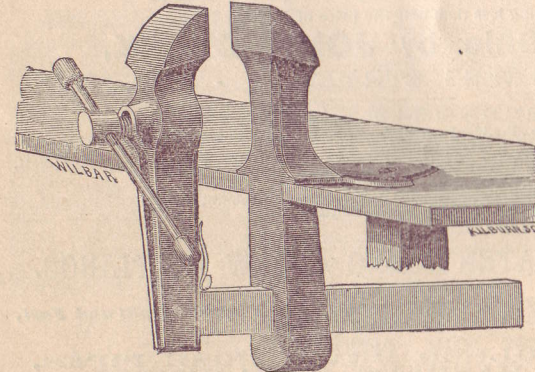
Standard Milling Machine.



Pipe Vise, Extra Jaw.



Swivel Jaw.



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FIFTY SIZES AND STYLES OF VISES CONSTANTLY ON HAND.
MORE THAN THIRTY THOUSAND IN HARD USE.
Vises warranted, Standard Milling Machines, five sizes, weighing 2,300, 1,600, 1,050, 1,000, and 900 pounds.

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POTASH AND MAGNESIA MANURES,

Containing about one-third part Sulphate of Potash, one-third Sulphate of Magnesia, and one-third common Salt, and warranted free from all Chloride of Magnesium; for use on Cotton and Tobacco lands in connection with Superphosphates and Guano.

SULPHATE OF POTASH,

80 per cent purity; for use by manufacturers of Fertilizers.

Special Manures, in which Sulphates of Potash and Magnesia are already combined with Superphosphates and Salts of Ammonia, in proportions best adapted to special crops. For sale by

ALKALINE MANURE CO., CAMBRIDGE, MASS.

B. A. GOULD, Treasurer.

It is confidently believed that by faithful use of these Fertilizers, most of the worn out cotton and tobacco lands of the Southern States may be regenerated. Experience has continually shown that after a few years' application to the same land, — the time depending on the original amount of potash in the soil, — the effect of Guano and the Superphosphate of Lime is lost, and the soil becomes completely exhausted. The recent discoveries of mineral beds of Chlorides of Potassium and Magnesium, now for the first time place these alkalies at prices permitting their use by the agriculturalist. The effect of the use of Potash and Magnesia has been found as favorable upon the quality as upon the quantity of the crops.



FIRE ENGINES, FORCE PUMPS, GARDEN USES, &c.

Will not Mildew, and Warranted to stand a Pressure of 700 Pounds per Square Inch.

Costing less than half the price of Leather Hose.

For Sale by **JOHN CLARK,**
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CLARK'S PATENT RING SCREW COUPLINGS.

Patented March 9, 1869.

Especially Adapted to this Hose. Warranted Perfectly Tight and Fast, and Easily put on.

ALSO,
HEAVY ROLLED BRASS HOSE PIPES,
BRASS HANDLES, WITH SWIVEL.

RURAL BOOKS.

Sent post-paid, on receipt of the price.

ORANGE JUDD & CO.,

No. 245 Broadway, New York.

Cotton Culture.

A Complete Manual for Cotton Growing. By **Joseph B. Lyman.** With an additional chapter upon Cotton Seed and its Uses, by J. R. Sypher. Price \$1.50.

This work discusses in the first part, climate, the farm, stock, implements, preparation of soil and planting, cultivation, picking, ginning, baling and marketing, and gives a calendar of monthly operations. A discussion of the extent of the cotton lands, the varieties of the cotton plant, and the insects and diseases that molest it, form the second part. The work contains a colored map of the Cotton Lands of the United States, besides other illustrations.

Gardening for the South;

Or, How to Grow Vegetables and Fruits. By the late **William N. White,** of Athens, Ga. With additions by Mr. J. Van Buren and Dr. James Camak. Revised and newly stereotyped. Illustrated. Price \$2.00.

Gardening for Profit.

A Guide to the successful cultivation of the Market and Family Garden. By **Peter Henderson.** Finely illustrated. Price \$1.50.

There are marvels of transformation, and rapid reproduction recorded therein, which might well shame the dull fancy of the author of Aladdin or of Kaloolah. There is no theory about it; a man who has made himself rich by market-gardening plainly tells our young men how they can get rich as easily as he did, and without wandering to California or Montana for it either. — HORACE GREELEY in the N. Y. Tribune.

New American Farm Book.

Originally by **Richard L. Allen.** Revised and greatly enlarged by **Lewis F. Allen.** Price \$2.50.

Allen's American Farm Book has been one of the standard farmers' hand books for twenty years; it is still a valuable book, but not up to the times; and as its author, Mr. R. L. Allen, could not give time to its revision, this was undertaken by his brother, Hon. Lewis F. Allen, the distinguished farmer of Niagara county, editor of the American Shorthorn Herd Book. The work is greatly enlarged, and full of suggestions from the rich experience of its editor and reviser, and is called the *New American Farm Book.*

Farm Implements and Machinery.

The principles of their Construction and Use, with simple and practical explanations of the laws of motion and force as applied on the farm. By **John J. Thomas.** With 287 illustrations. Price \$1.50.

Practical Floriculture.

A Guide to the successful Propagation and cultivation of Florists' Plants. By **Peter Henderson,** author of "Gardening for Profit." Beautifully illustrated. Price \$1.50.

Certainly the most practical and desirable work that has ever been published on this subject. We are selling them rapidly. Some no doubt will say that it exposes the "secrets" of the Trade too freely, and that it will make Gardeners and Propagators so plenty that our occupation, like Othello's, will be gone. H. A. DREER, Seedsman and Florist, Philadelphia, Pa.

Full to overflowing with valuable information.

FRANCIS RICHARDSON, Toronto, Canada. Thoroughly practical, yet readable as a novel. — N. Y. Sun.

Parsons on the Rose.

A Treatise on the Propagation, Culture, and History of the Rose. Revised and newly electrotyped. Illustrated. By **Samuel B. Parsons.** Price \$1.50.

How Crops Grow.

A Treatise on the Chemical Composition, Structure, and Life of the Plant. With numerous illustrations and tables of analyses. By **Prof. Samuel W. Johnson,** of Yale College. Price \$2.00.

Another work by the same author is now in press, entitled "How Crops Feed," in which the subject of the Food of the Plant is amplified in all its details, and the atmosphere and the soil are fully discussed in their manifold relations to the Plant.

Herbert's Hints to Horse Keepers.

By the late **Henry William Herbert** (Frank Forester). Price \$1.75.

A complete manual for horsemen, embracing, How to Breed a Horse; How to Buy a Horse; How to Break a Horse; How to Use a Horse; How to Feed a Horse; How to Physic a Horse; How to Drive a Horse, etc.; and a chapter on Mules and Ponies, etc. Beautifully illustrated.

ORANGE JUDD & CO.,

No. 245 BROADWAY, NEW YORK.

NEW ENGLAND MUTUAL LIFE INSURANCE CO.

No. 39 State Street, - - BOSTON.

Accumulated Fund, Jan. 1, 1869,

\$7,000,000.

Surplus to be distributed to Members,
\$763,000,

To be allowed in settlement of notes or credited in payment of premium where parties have paid all cash.

DISTRIBUTIONS ANNUALLY.

ALL POLICIES NON-FORFEITABLE, under the laws of Massachusetts (see Statute of April 10, 1861), to the extent of their value.

The following Table will show the time that a Life Policy, issued by this Company, WILL CONTINUE IN FORCE after the annual cash PAYMENT OF PREMIUM HAS CEASED, no other condition of the Policy being violated. Only four different ages, and seven payments, are given; but they will suffice to show the practical working of the law referred to above.

PAYMENTS IN CASH.

AGE WHEN INSURED.	1 Payment.		2 Payments.		3 Payments.		4 Payments.		5 Payments.		6 Payments.		7 Payments.	
	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.	Years.	Days.
25 . . .	293		1	228	2	170	3	119	4	72	5	31	5	360
30 . . .	329		1	300	2	277	3	259	4	246	5	238	6	229
35 . . .	3		2	12	3	27	4	46	5	56	6	41	6	359
40 . . .	49		2	93	3	125	4	123	5	86	6	16	6	276

Policies issued to the amount of **\$20,000** on a single life, on the LIFE or ENDOWMENT plan.

This Company is now entering upon its twenty-fifth year, and has at risk

\$65,000,000.

For Pamphlets and Circulars, giving details of the Company's operations, address either the President or Secretary.

BENJ. F. STEVENS, President.
JOSEPH M. GIBBENS, Secretary.

WM. W. MORLAND, M.D.,

WALTER O. WRIGHT,

Medical Examiner.

Actuary.

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