

QUESTIONS · OF · THE · DAY
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KELLEY

THE DAY.

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QUESTIONS OF THE DAY—XLV

THE
OLD SOUTH AND THE NEW

A SERIES OF LETTERS

BY

HON. WILLIAM D. KELLEY

AUTHOR OF "LINCOLN AND STANTON," ETC.

NEW YORK AND LONDON
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1887

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TO HIS COUNTRYMEN
TO WHOSE GENERAL INTELLIGENCE, INVENTIVE GENIUS, SKILL IN APPLYING SCIENCE TO
THE PRODUCTIVE ARTS, ENERGY, ENTERPRISE, AND CAPITAL
THE EMANCIPATED SOUTH OFFERS INVITING AND PROFITABLE FIELDS
THIS VOLUME
IS RESPECTFULLY DEDICATED BY
ITS AUTHOR

THE ELMS: PHILADELPHIA
October 1, 1887

PREFACE.

This volume is the result of an earnest desire on the part of its author to understand the industrial and social condition of the people of the Southern States. The better to gratify this desire, he revisited in 1887 substantially the field he had traversed in 1867. A few days sufficed to convince him that to chronicle his observations with photographic fidelity, and to report them, with his conclusions therefrom, to his countrymen at large, might prove to be a fitting close to the labors of a long life which has been devoted chiefly to the investigation of social and politico-economic questions.

W. D. K.

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THE OLD SOUTH AND THE NEW.

LETTER I.

THE SOUTH IN 1867—NASHVILLE, COWAN, SOUTH PITTSBURG,
CHATTANOOGA, BIRMINGHAM, ANNISTON, AND ATLANTA IN
1887.

WASHINGTON, D. C., December 15, 1886.

I gladly comply with your request for a communication on the resources, progress, and prospects of the South as seen during my recent visit to Tennessee and Alabama, and while making a trip through Northeastern Georgia and across South Carolina on the Piedmont Air Line road, en route from Atlanta to Washington.

I have points of comparison in vivid recollections of visits to these States in 1867, and to Florida and Georgia in 1875. The progress in wealth, in the means of individual comfort, and in productive power made by those portions of the country with which I can thus institute comparisons has been marvellous. In 1867 the South was a land of desolation, her fields were fenceless and uncultivated, and her people were without reproductive stock, or that with which to impel modern agricultural implements, if these had been bestowed upon them gratuitously. They were, numerically speaking, without seed for food crops, except such as had been bestowed upon them by

personal friends, or the government through the Freedmen's Bureau and the agencies of the Agricultural Department.

The war had undoubtedly been the proximate cause of these deplorable conditions ; but it was not their primary cause, as investigation discloses the fact that this was to be found in the economic opinions and industrial system that had dominated the South before the war, and under which she neither had nor could have populous towns or a great city, which her leaders regarded as great sores. Without such aggregations of people, no development of her boundless and infinitely varied mineral resources could be had. These were, in fact, treated as of little value, and as involving in their possible development dangers to the prevailing system of field labor. In the absence of cities and of mining and manufacturing populations, the productions of the South were restricted to a few great staples, such as cotton, rice, sugar, and tobacco ; and in the inevitable absence of fertilizers, which in those days were chiefly derived from the barnyard, and the refuse of towns and cities, these crops were so exhausting as to require the land to be recuperated by being permitted to lie fallow for twenty or more years, so that each planter was required to own vast bodies of land in order to have at all times a plantation susceptible of profitable cultivation. As the labor on these large estates was performed by slaves, there was no employment for the white families, who occupied small patches of poor land, and most of whom derived a precarious living from the game and fish they might take, and from such cotton or tobacco as in the absence of implements and barnyards they could extort from their exhausted acres.

Referring to the poverty of the people and contrasting

it with the incalculable value of the mineral wealth with which their State abounded, I appealed to an audience of thousands of people at Montgomery, Alabama, in May, 1867, to relieve themselves from the drudgery of ill-paid manual toil, and the penury it entailed upon them, by exchanging part of their land for capital with which to develop the coal, iron ore, and limestone to be found in or near to that which they might retain. By recurring to my remarks, as reported by a citizen of Alabama in the *Montgomery Sentinel*, I find that I said :

“It is in the interest of our country that I speak when I ask you how you use the advantages with which nature has so bounteously provided you, and tell you that you have impoverished yourselves by treating them with contempt. We turn our coal and iron to most profitable account. You permit yours to slumber in their native earth. Availing ourselves of their power, one man with us does the work of a hundred with you. One little girl, tending a machine in a factory, will spin or weave more cotton in a day than one of your women will in a year by the ancient method of the wheel and the hand-loom. You have not deemed your mineral wealth worthy of consideration. In your devotion to your peculiar system of labor, you have forgotten that iron and coal are the most potent agents of modern civilization. Mere muscular power has become a thing of secondary consideration. Iron is the muscle of modern civilization, and coal—ignited coal—is the nervous force that animates it.”¹

In view of the immense development of the coal and iron ore of these States, and the increase in number and extent of industrial centres I saw in Tennessee and Alabama, the States in which I had most frequently spo-

¹ Speeches, Letters, etc., by Wm. D. Kelley, p. 162.

ken in 1867, the recollection of the remarks just quoted made me fear that well-instructed men among my auditors must have felt that I was treating them as children, and giving them what might be regarded as a kindergarten lesson in the elements of the civilization of the latter half of the nineteenth century. Certain it is that they have outgrown the need of such elementary suggestions. The changes wrought in the meantime have been marvelous, and may justly be regarded as the work of Titans.

The systems of railroad that now traverse the South are as perfect in the construction of road-bed, track, and bridges, and in passenger cars and the means provided for the transportation of freight, as those of the North. Lateral roads branch from them into such valleys as are known to be specially rich, not in iron alone, but in other minerals, some of which are found in such profusion and juxtaposition as to seem to defy geologic laws as elsewhere illustrated.

I have said that prior to the war the South neither had, nor could have, great cities. It is also true that her statesmen preferred that their workshops should be in foreign lands, and that the ships which exported their raw products and brought them manufactured commodities in exchange should be built and owned by foreigners. In this respect the change is most striking.

Nashville is a beautiful city, nearly every one of whose many hills is crowned by an edifice which, though it may not rival the magnificent State Capitol, does vie with it in challenging the admiring attention of visitors. The city has become a manufacturing and commercial centre. While there I visited a foundry, which though originally large has doubled its extent and capacity within the last two years, and is sending out an immense variety of

stoves and hollow-ware, but which uses no iron not made from native ores in Tennessee or Alabama; also an immense cotton factory, which is one of four within the city limits, all of which are supplied with the most improved machinery. Nashville's manufactures increase in variety as rapidly as they do in volume, and its growth as a distributing point has been sufficient to prove that it is destined to enjoy the advantages of a producing and commercial centre, and to become at no distant day a populous city.

Chattanooga, Tennessee, and Birmingham, Alabama, are marvels each in its own way. Chattanooga may be described not inaptly as lying at the foot of Missionary Ridge and Lookout Mountain, though when the battles were fought which made the names of these mountains famous the smoky little village on the Cumberland River was at its nearest point to either of them more than a mile away. It is a growing place, and grows because its people are all busy. It is, at least, in one respect cosmopolitan. We were told that its adult population is about equally divided between ex-soldiers of the Confederate and of the Union army, and that recruits from either, or masters of industry who have never meddled with arms or politics, are alike welcome to a share in its fortunes. For so young a city its industries are widely diversified. Of course those connected with ore beds, coal mines, and furnaces predominate, but it has others. Its lumber trade, especially in white woods, is claimed to be second only to that of Chicago. It has a tannery, too, which is said to be the largest in the world, and, without having seen all its rivals, I am prepared, from its dimensions, to believe that it is the largest. The labor it employs is colored, and it was in connection with the homes of these laborers that

my attention was first drawn to the striking contrast between the neat, commodious, and well-painted homes of the negro laborers engaged in mining, smelting, and mechanical pursuits, and the cabins in which the poor white growers of cotton live now, as they did before the war. With a party of friends, in a special car on the belt road, which encircles the city, we visited foundries for miscellaneous wares and cast-iron pipe works, and passed several furnaces. We examined the rolling-mill which was constructed by the government during the war for the re-rolling of old rails, and after the war was greatly enlarged and improved by private owners, among whom were Messrs. Cooper and Hewitt, of New York, and which is now being fitted with all the appointments necessary for the production of Bessemer steel and its conversion into rails.

But the establishment which interested me as much as any in Chattanooga was a Bessemer steel-nail works, of which Mr. James Duncan, formerly of the Cambria Works, of Johnstown, Pennsylvania, is superintendent, and, I think, proprietor. The establishment is not remarkable for its extent, but is very remarkable for the compactness of its arrangements and the perfection of the nails it produces. The labor is colored, though the fact that an applicant for employment is white is not an impediment to his engagement, if he be a skilful nail-maker. The converter used by Mr. Duncan is the smallest I have seen, as are the ingot moulds into which the metal is cast. The rolling apparatus is, of course, proportioned to the supply this diminutive converter can create. When the nail mill is in operation the bodies of many of the negro workmen, who are youths or very young men, sway to its music, and, at times, the whole gang break out in a negro melody or chorus. Here I found unexpected evidence of the in-

dustry and mechanical skill of some of these colored boys, in attestation of which I purchased from one of them a steel paper-cutter made from a railway spike with such imperfect tools as he had himself constructed. The maker disliked to part with this evidence of his skill, because it had not received the finishing touches, and the blade was less smooth and polished than he had intended to make it. I also secured a lady's button-hook, made from a spike with the same artless tools by the same lad. Mr. Duncan assured us that for the privilege of testing their skill and improving it some of the boys would devote more than half of the hour allowed for dinner to this work, and that the only limitation upon the number of articles they might produce was that they should work at them during dinner-time only, and should report the fact whenever they required another spike. The establishment of an industrial-art school in the midst of a population like these Chattanooga nail-makers would soon produce gratifying evidence of the adaptation of negro labor to mechanical pursuits requiring a high degree of skill. Chattanooga, in addition to its productive industries, is also a large distributor of groceries and dry goods, and evidently has a commercial future.

Birmingham lacks the advantages Chattanooga derives from its situation on a river. It is an interior town. When the war closed its site was a tenantless wilderness, but it is now an industrial centre, the energy of whose more than 25,000 inhabitants and the resources, found chiefly within a few miles of the city limits, which they have made tributary to their prosperity, would be a marvel in any country. About six miles out upon the line of one of the railroads, which traverse the property of the Pratt Coal and Iron Company, are ranges of coke ovens,

which reminded me of the Connellsville and Westmoreland coke regions of Pennsylvania, and about the same distance on another road parallel to the former, and but two or three miles from it, we saw gangs of men quarrying iron ore by the use of the drill and explosives used by those engaged in quarrying stone. In view of the fact that the narrow strip of land which divides the coal and ore beds is a mass of limestone, it is not surprising that the over-sanguine men of Birmingham really believe that they will be able to make iron so cheaply as to soon close up the works of Pennsylvania and force her ironmasters and their employés to re-establish themselves at Birmingham. The consequence of this faith is a wild speculation in town lots, which is without a parallel in my recollection. Just before the arrival of our party, a corner lot 100 feet square, which appeared to be swampy, because it was rather below grade, and in front of which was a peanut-stand, had been sold for \$100,000, or \$1,000 per front foot. Of course such speculation will retard the immediate growth of Birmingham, and time, by various processes, will determine the actual value of corner lots in a city whose success is to extinguish the furnace fires of Pittsburg, Braddocke, Johnstown, Bethlehem, and generally throughout Pennsylvania.

I was much impressed by some things I saw at Cowan, especially by the fact that the close proximity of fuel, ore, and limestone at that point enables the proprietors to produce a superior quality of foundry iron, which I saw in use at Nashville, from ores that are so lean that they would not be worked on the costly lands of Pennsylvania and with the more expensive fuel used in that State. This furnace, the erection and working of which have created a prettily situated village, embodies all the latest im-

provements, as do the two that are operating at South Pittsburg, and the four charcoal furnaces of the Woodstock and Clifton companies at Anniston, Ironaton, and Jenifer, prosperous villages but a few miles from Anniston. At South Pittsburg work has been commenced on another furnace, and we were told that contracts had been made for the immediate construction of two others ; and while I yet lingered at Anniston, Mr. John S. Perry, proprietor of the great stove works at Albany and Sing Sing, having determined to remove the last-named branch of his works to South Pittsburg, contracted for land on which to erect a foundry and finishing buildings, which will cover ten acres, and proposed to purchase twenty acres on which to erect homes for his workmen. It is believed that South Pittsburg must enjoy a large trade in lumber generally, and compete with Chattanooga in poplar and other white woods ; and there is much talk of the early establishment at this place of pipe works and other industries that will gather about them large numbers of laborers. There is no doubt that South Pittsburg is destined to grow rapidly and become a town of considerable size and importance. Its situation is on a beautiful bank of the Tennessee, and slopes from the river gently to and up the side of the mountain, in whose evening shadow it will grow. I heard much said about Sheffield, and read much of what is to be done there, but as I did not visit the place I cannot speak advisedly of its prospects.

The objective point of my trip was to visit my friend, Mr. Samuel Noble, the founder and chief manager of the settlement of Anniston, in Calhoun County, Ala., and my opportunity to study the progress and present condition of the industries of Anniston, and the resources of the territory, of which it may be said to be the capital, was

complete. We remained there ten days, occupying apartments in the magnificent hotel known as "Anniston Inn," a favorite summer resort for the people of the Gulf States. This picturesque edifice, which is a perfect specimen of the prevalent architecture of the days of Queen Anne, stands at the head of a gentle slope, near the base of which are Anniston's workshops, which include two charcoal furnaces, a foundry, car-wheel and axle factories, a machine shop, shops for the construction of freight cars, a large brick cotton-factory, and several other establishments, including an ice factory capable of producing five tons per day. The water supply is drawn from a bed of pure white sand, eighty feet below the surface, and is crystalline in its purity. The pumping force raises it to a reservoir 236 feet up one of the mountain sides, and the supply is said to be sufficient to meet the wants of a population of many thousands. But to return to the Inn which overlooks these hives of industry. Its apartments on the office floor, including dining-room, parlor, smoking alcove, and reading-room, and the sleeping apartments in the upper stories exceed in finish those of any baronial hall of the olden times. Except some red-wood shingles from California, which were required to produce an effective contrast, the timber in the structure is all native to the surrounding hills. There is not a particle of paint on the interior of the building. The polished woods derived from the immediate neighborhood afford a study to the tourist as he roams through the spacious apartments of this old-fashioned Inn, whose guests enjoy the comfort of every modern improvement. In its broad fireplaces there lie upon massive andirons logs six feet or more in length, and in many of the sleeping apartments logs of about four feet.

It is a noteworthy fact that Anniston has a direct trade with China, at least to the extent of part of the productions of its cotton-mill. It was indeed a surprise to find bales of goods marked and branded for direct shipment from this interior town in Alabama, the history of which runs through less than seventeen years, to a commercial correspondent in China. The ores used in the furnaces at Anniston, Ironaton, and Jenifer are procured from mines belonging to the companies, and the wood from which charcoal, the only fuel used in the furnaces and shops, is derived from the mountain spurs which are distant far enough from the Inn, as viewed from its broad verandas, to give the scene the character of an enchanted valley. Not only is the Inn the property of the Woodstock Iron and Steel Company, but until four years ago that company had, under the management of Messrs. Samuel Noble and Alfred L. Tyler, controlled the settlement, as the towns of Pullman, in this country, and Saltaire, in England, are controlled by proprietors; but during the last four years town lots have been offered for sale, and quite a commercial centre has been established by private enterprise. Fifteen thousand bales of cotton will be handled this year, much of which will be received from poor whites in exchange for their very limited annual supply of store goods. The Woodstock Company owns over 50,000 acres of land on which are immense deposits of brown and red hematite, fossiliferous and specular ore, mountains of limestone, and seemingly inexhaustible supplies of wood and coal. The companies have just completed a railroad more than sixty miles long down the Talladega valley from Anniston to Sylacauga, which is known as the Anniston and Atlantic road, and by which their properties are connected with

the system of roads that connect the interior with South-eastern Alabama, Georgia, and Florida. The first passenger train traversed the valley on schedule time while I was at the Inn. The next work in hand is to complete a road of about thirty miles, which will connect Anniston with the Cincinnati Southern road at Gadsden, and give her direct connection with Chicago. The Woodstock Company has also determined to construct two furnaces for the manufacture of coke iron as a preliminary step to the establishment of foundries, and I venture the prediction that though Anniston has never had a "boom," and its planting and development have been managed so quietly that its name is hardly recognized by the popular ear, it will, before two decades shall have passed, be one of the most remarkable centres of iron, steel, and kindred industries to be found in those wonderfully endowed States, Georgia, Alabama, and Tennessee.

Space will not permit me to say anything definite about the marble deposits which extend through Tennessee, Alabama, and Georgia, and embrace almost every variety of marble. I may, however, mention an illustrative fact. In passing by the Woodstock furnaces, the attention of our party was attracted by a pile of broken marble of singular whiteness, pieces of which bore such an appearance of polish, as to create the impression that they were fragments of a manufactured article. This, however, was not the case. They had been brought there to be used as flux. The quarry from which they had been taken was the one selected to furnish the block of marble Alabama was to contribute to the Washington monument. When it had been finished and properly inscribed, the block was forwarded and received by the builders of the monument, and having been scrutinized and submitted to the judg-

ment of experts, it was returned with a communication stating that the law required the stone from each State to be a specimen of its own resources, and that this was Italian marble. So firm was this conviction that it required the certificates upon honor of the governor of the State, of senators and members of Congress, and the affidavits of parties connected with the quarry to convince the experts who had the erection of the monument in charge that it was not Italian, but Alabama marble.

With my son, who accompanied me throughout my trip, I lingered at Anniston until Congress had actually assembled. Accompanied by our friend, Noble, we departed with regret, and proceeded by the Georgia Pacific Road to Atlanta, and thence next morning by the Piedmont Air Line, which traverses Northeastern Georgia and the Carolinas, for Washington.

In 1867 I saw the ruins of what had been the little city of Atlanta, which had prided itself upon the amount of cotton its merchants handled annually. It was literally in ruins—I may say in ashes; but as I looked upon it now I saw that I had then looked upon the ashes from which a phoenix was to rise. The census of 1880 found more than 50,000 people in Atlanta, and the number has certainly increased since then. That they are prosperous people is attested by every thing you behold in Atlanta. Into and out of its union depot pass the cars of eight through-line railroads, to which three important ones are now being added. The Kimball House, which is one of the best-appointed hotels in the country, cost considerably more than a million of dollars for its reconstruction after its destruction by fire in 1883. The office from which the *Constitution* issues its many thousand papers daily is impressive alike by its extent and architectural beauty. The

Markham House and other fine hotels cluster about the depot and the Kimball House. The evening was cold and the streets were sleety, but it was the only chance I would have to see any thing of Atlanta. I therefore walked far enough to see some of the great business houses of the city, and, by the aid of street railroads, saw something of the portion in which the elegant residences of Atlanta's millionaires are found. As we left in the morning we discovered pregnant proof that the growth of Atlanta had exceeded the expectations of its earlier settlers, for factories, warehouses, freight depots, and other massive buildings are rapidly enclosing the beautiful cemetery, which, when laid out, was evidently believed to be too remote from the town for the possible encroachment of its stirring life upon this quiet city of the dead.

In having complied with your request, and thus told the readers of the *Manufacturers' Record* what I saw in my brief visit to Tennessee, Alabama, and Georgia, I have given them but faint intimations of the resources of the South, of the impulses that now animate her, and of the rapid strides with which the spirit of the nineteenth century is changing not only the aspect of the country but the purposes and aspirations of her people.

LETTER II.

FLORIDA—THE WINTER FARM AND GARDEN OF THE UNION.

THE INN, ANNISTON, ALA., May 9, 1887.

I passed the month of March, 1875, in Florida, dividing my time between Jacksonville and Hibernia, whence I made visits to St. Augustine, Palatka and Green Cove, and took the customary trip to Silver Spring by the Ocala-waha. I had gone South for rest in a genial climate, both of which I found on the banks of the beautiful St. John's. The repose, however, became too absolute, and engendered ennui, which drove me North while winter yet covered the lap of spring throughout Pennsylvania. The controlling impression I received was that at some period when, by the decay of successive growths of her luxurious vegetation, Florida should have been lifted out of the water, she would probably be a safe and agreeable home for human beings. She was apparently without resources, and was, as she to some extent still is, a *terra incognita*. Indeed, I find on the face of a very recent map a notice covering parts of Dade and Monroe counties, equal in size to two States of New Jersey, which begins thus: "This unsurveyed and but partly explored region." Let me therefore, in justice to myself, present to my readers some of the circumstances which seemed to justify the unfavorable conclusion to which I had been forced. In this immense State, with the fame of whose fruit and flowers Mrs. Harriet Beecher Stowe had just filled the land, Col.

Hart's grove, near Palatka, was everywhere cited as proof that oranges could be raised in commercial quantities in Florida, and I heard that Gen. Sanford had planted a grove near a town to which his name has been given, and that others were planting groves in that vicinity. It was also said that the lumber of Florida was valuable and inexhaustible, but I could not see that anybody had been tempted to use it commercially; and as schedule time by rail for passengers from Savannah to Jacksonville, which is now five hours, was then sixteen, and as there were, including disconnected and unfinished roads, but 484 miles of railroad in the State, I concluded that the lumber of Upper and Middle Florida was not manufactured because it would not pay the cost of transportation. As the people who used milk depended on Northern manufacturers of condensed milk for their supplies, and as the cows I saw were very small, and obtained their food from beneath the surface of the St. John's, at a depth which required them to submerge their horns, and sometimes their shoulders, I concluded that they were not kept for dairy purposes, but belonged to a class of amphibious animals of which I had not read, which the Spaniards had probably introduced as a means of supplying themselves with hides and tallow. This impression was strengthened by the fact that nowhere did I see an effort to produce pasturage, fodder plants, corn, wheat, oats, or any other of the cereals, and by the type of the only flouring mill I saw. It was located at Hibernia, so near to my chamber that I could hear the noise of the machinery when it was in motion, and was used for grinding corn. It was modelled after the mills that were in use before the Christian era, and which had suggested to the apostle his apt illustration of the uncertainty of human life: "Two women shall be grinding; the one

shall be taken and the other left." On examination I found that its motive power consisted of a venerable-looking colored man and a lad ten or twelve years of age, who was probably his great-grandson. Nor was my conclusion, which now seems so ludicrous, inconsistent with replies made to queries by intelligent white Floridians. For instance, when I asked a group of them upon what they lived, one said: "On sweet potatoes and consumptive Yankees"; and to the question, What have you to sell? another replied "Our atmosphere."

Soon after my return home I determined to re-examine the conclusion from which I had all along revolted by bringing it to my favorite test, that of experience expressed in statistics, reports of the census, and Poor's Railroad Manual. Careful examination of these volumes confirmed my adverse conclusion, by showing the following comparative results: Florida was granted a territorial government in 1822, and Iowa not until 1838, and both were admitted to the Union as States on the 3d of March, 1845. Florida includes 59,268 square miles, and Iowa but 55,475. The report of the census taken in June, 1840, five years before their admission, shows that Florida's population then numbered 54,477, and that of Iowa but 43,112. Yet the census of 1870, the last taken before my visit, showed that Iowa's 43,112 had expanded into 1,194,020, and that Florida's 54,477 now numbered less than the thousands Iowa had in excess of a million, the totals standing thus:

1870—Iowa, population	1,194,020
“ Florida	187,740

Adverse to Florida as was this showing, that made by the Railroad Manual was more so, for the general govern-

ment had been specially lavish in its grants of land to the State directly, and to her railroad companies. The first grant of land in aid of a railroad ever made by the national government was to a road in the territory of Florida, at a time when few of the American people had seen a railroad or a locomotive. That grant, which was made March 3, 1835, to the Tallahassee and St. Mark's Road, gave the company a road-bed and 30 feet on each side thereof, together with the right to take lumber for construction within 300 feet on either side of the road, and 10 acres at the terminus. By a single act, that of 1855, Congress ceded to Florida about 20,000,000 acres, and Senator Call, who is now vociferous in condemning land grants, introduced during the last Congress a bill entitled "A bill for the forfeiture of the land granted to the State of Florida for the construction of certain lines of railroad in that State," which included the following grants, made as early as May 17, 1856:

Florida.—Florida Railroad	\$289,984.17
" Florida and Alabama	165,688.00
" Florida, Atlanta, and Gulf Central	37,583.29
" Pensacola and Georgia	1,275,212.93

Notwithstanding these early and more than munificent grants of land, the Manual for 1874, the year preceding the visit of which I have spoken, showed that Florida had of railroads, finished and unfinished, but 484 miles, and that Iowa was then operating 3,850 miles of such road. I think I may here confidently propound to my readers the question: Did not the facts I have submitted justify the unfavorable judgment with which I left Florida in 1875? Yet, ample as seemed to be the evidence in support of the opinion that Florida was not yet fit for

human habitation, it would, had I known the whole truth, have led me to an opposite conclusion.

My judgment was at fault, because I was not familiar with the early legislation of Florida. Had I been I would have seen that it was man and not nature that had inflicted bankruptcy upon the State, and stagnation and gnawing penury upon her people. The men who controlled her affairs from her erection into a territory until the close of the civil war evidently believed that they could compel nature to adapt her operations to the principles of the Virginia and Kentucky resolutions of 1798, which asserted the supremacy of a State over the Union, and the free-trade dogmas enunciated by Richard Cobden, which were designed to perpetuate England's monopolistic claim to the title "the workshop of the world." The effects of this delusion are everywhere apparent in the economic and social history of Florida, which, while under the influence of the men referred to, is a record of blundering egotism. From the disastrous consequences of their legislation, Florida and her people were not able to emancipate themselves till toward the close of 1880, when it was made possible for them to accept the progressive life of the last quarter of the nineteenth century, and yield to the spirit that is animating, illuminating, and blessing the New South.

To dispense the affairs of a single State was not adequate to the aspirations of her early rulers, though that State was an empire in extent and a marvel in the luxuriant diversity of the crops it could produce. By controlling the taxable resources of the State, together with her credit and the enormous grants of land she had received from the national government, they were able to entrench themselves in the exercise of Florida's executive,

legislative, and judicial functions; and when this was accomplished they abandoned all pretence of promoting her settlement and the development of her resources. Having made a settlement, consisting of a few princely estates north and west of the Suwannee River, they devoted their energies to the promotion of a scheme for the destruction of the mining, manufacturing, and carrying interests of the Northern States by the sinister regulation of the international commerce of the Union. This is not the suggestion of fancy, nor an exaggeration, but a cold fact of history. He who will consult a map of Florida and note the lines of railroad from Jacksonville to Tallahassee, from Tallahassee to St. Marks, and from Fernandina to Cedar Keys, will discover the length of railroad Florida carried into the Confederacy, and may see how subservient it all was to the purposes I ascribe to the aristocratic dwellers north and west of the Suwannee. The completed portions of these roads, which did not include a bridge over the Chattahoochee River, were available for but about 337 miles of continuous travel.

Few of my readers will, I fear, perceive the significance of these facts, and I must therefore submit an explanation. Florida embraces more than six degrees of latitude. Jackson, her northwestern county, is bounded by the 31st degree, and the Keys with which her bay abounds are below the 26th degree. To promote the population of the State and the development of her resources required routes of travel not from east to west, but from north to south. But the roads, the construction of which, short as they were, reduced Florida to insolvency, ran from west to east, and are, with the exception of the short extension of the Fernandina and Cedar Keys road from Gainesville to Cedar Keys, compressed into less than

one degree. These facts, together with the name bestowed upon the line from Fernandina to Cedar Keys, "The Transit," illustrate the mad purposes of the conspirators, who sought by controlling the destinies of the Peninsular State to compass the paralysis of our manufacturing industries, and the destruction of the Union.

They openly proclaimed their belief that the carrying trade between the Mississippi valley and transatlantic countries would be diverted from the North and concentrated at Cedar Keys, on the gulf, and Fernandina, on the Atlantic coast, if these ports could be connected by a direct railroad to be known as "The Transit." The establishment of this practically through water line for the carriage of international freight would, they believed, prevent the construction of east and west roads in the North; and in the perpetual presence of non-protective tariffs the cheapness of water transportation would also prevent the growth of mining and manufacturing on this continent. Thus vain men, to whom a little brief authority had been given, proposed to shape the destinies of the American people. Their dream of supreme power was, however, but brief. Most of them lived to learn that it was for Him, who had bestowed its boundless measures of infinitely diversified resources upon their country, to dispose of His gifts to the human family, to whose use, comfort, and instruction He had adapted them all. The agents He employed to effect his beneficent purposes were discontent, strife, and war, the discussion of which has no place in this letter.

Justice to my subject does, however, require me to reply to the question, What was the condition of Florida and her people when the war ended? It has already been shown that there were but 416 miles of railroad, and less

than 187,000 people in the State at the close of 1870. The railroads were badly located, and the extravagance and corruption that attended their construction had bankrupted the companies to which they belonged, and the State. What the condition of the people was ten years later I have endeavored to show. The State having guaranteed the bonds of the railroad companies, and secured their payment, principal and interest, by a mortgage pledging to this object all the land she had received from the general government, or might acquire, her supreme power was thenceforth restricted to the further impoverishment of the people by taxing their uncultivated and unproductive land. Nor did sanguine hope promise relief from the apparently inextricable meshes of poverty and litigation in which her ante-war doctrinaire rulers had involved her. With each recurring default of interest on the guaranteed bonds her helplessness increased, and, as she had conveyed to the very men who had in their own interest contracted the debt, under the title of the Board of Trustees of Public Improvement, all her lands, they had deprived the State of available resources and subjected her to legal jurisdiction. This device, which had been resorted to for the purpose of establishing beyond peradventure the perpetual supremacy of the oligarchy that invented it, now came back to plague the inventors. Foreigners who held the bonds brought suit and obtained judgment against the Board of Trustees, and the United States courts, on the application of one Vaas, a holder of bonds, enjoined the board from selling land for any other purpose than the payment of the proceeds to a receiver to be applied to the interest and principal of the bonds. Large bodies of land had meanwhile been granted to companies proposing to build several judiciously located

railroads, but the mortgage and injunction covered the land thus granted, and until these incumbrances should be removed the grants were unavailable. But, further, the Board of Trustees had been authorized to contract for the drainage of the swamp and overflowed lands of the State, for which service the executive offered one half of the land that should be reclaimed to the party who might reclaim it. But no one could be found to accept the contract, because the lands which might be reclaimed were covered by the injunction, and could not be transferred even in compensation for this work, which, if accomplished, would relieve the State from her embarrassment. The case was hopeless, and so it continued to be until toward the close of 1880, when a citizen of Philadelphia lifted Florida from insolvency and her people from despair.

When I was elected to Congress, in 1860, a slender lad of fifteen, the son of my late friend Henry Disston, having graduated from the Jefferson Grammar School, had just entered upon work in the lowest branch of skilled labor in the practical department of what is now the greatest saw manufactory in the world. He was a diffident and quiet lad. His devotion to his new pursuit and the facility with which he mastered minute details and general operations was a constant source of gratification and pride to his father. When in 1878 Mr. Disston died, his son Hamilton, of whom I speak, became the senior partner of the firm of Henry Disston's Sons. Though devoted to his great business, his trained familiarity with every detail of its management left him master of part of every day. As he was not addicted to sport or society, he longed for another great enterprise than that which had been brought to ideal perfection by his father, to

which he might profitably devote these unemployed hours. Florida's proposition to bestow half the land that should be reclaimed on the man who would drain her swamp and overflowed acres took possession of him. He instituted broad preliminary investigations from which he received satisfactory reports; he surveyed the entire field of the proposed work, and with Napoleonic instinct and foresight saw in the proposition an opportunity to promote his country's welfare by the reclamation of a more than kingly domain. Competent engineers were employed to make scientific surveys, and to report on the practicability of the scheme and the probable cost of the work. The legal questions involved were referred to eminent counsel; and it was the lawyers and not the engineers who found the obstacle that seemed to be insurmountable, for they came upon the judgment of the United States Court, and the fact that these lands were also in the hands of the receiver to secure a debt which, though said to have been but \$125,000 when contracted, had by a recent adjudication been found to be little less than \$1,000,000.

Few prudent business men would have attempted to remove such an embarrassment in order to enter upon what was but an experiment, though a right royal one. The magnificence and beneficence of the enterprise had fascinated Hamilton Disston, and he sent into every county of Florida in which there was a considerable body of land belonging to the State competent and trusty agents to report upon the character of the soil, its native productions, and what, if any thing else save these, it would yield under cultivation. Having scrutinized the reports of these agents and submitted them to a few judicious friends, he found himself prepared to submit to Governor Bloxham the question: How many acres of land, to

be selected by my agents, will the State convey to me for \$1,000,000, with which to pay the judgment against the lands vested in the Board of Trustees of Public Improvement, any balance of the sum which may remain after a settlement of that claim to be paid into the State treasury for general purposes? Four million acres was the Governor's instant reply, which, though prompt, had been well considered, as the Board of Trustees for Public Improvement and the Governor had for more than four years been pressing this offer upon the attention of American and foreign capitalists, and had been able to obtain no higher offer than 19 cents an acre, or \$760,000 for four million acres of Florida's choicest lands. This sum could not be accepted, as it was not sufficient to pay the principal of the debt, and the charges by which it had been swollen. The Disston contract, as it is now known, was promptly closed in 1880. The preceding forty years had added but 215,016 to Florida's population, and during the preceding fifteen years, or from the close of the war in 1865 until the close of 1880, but 132 miles had been added to her railroad system. This melancholy exhibit may be accepted as the epitaph under which the Old South was buried in Florida.

Let us now turn to the New South to ascertain whether she may enjoy a different career. The Vaas mortgage had no sooner been satisfied than the State government issued patents for the land previously granted to railroad companies, and the companies immediately contracted for the construction of the roads to which the grants were applicable.

But six years have elapsed since this happy consummation of the emancipation of a magnificent empire and a suffering people from the effects of the misgovernment of

a former generation, yet Florida is traversed by railroads and lines of steamers from the Alabama and Georgia boundary to Punto Rassa below Fort Myers on the Gulf of Mexico, and but a short distance from the Everglades. Here, one hundred miles farther south than any other American road has been laid, the Florida Southern has its picturesque and, in the winter, inviting terminus. The Jacksonville, Tampa, and Key West, and the South Florida roads give Jacksonville and the North daily connection with Sanford, Kissimmee, Tampa, and thence to Cuba by an admirably managed chain of roads, and a line of steamers that is much praised by voyagers. More than 1,800 miles of railroad were in operation at the close of last year, and the routes of traffic and pleasure travel are extended by daily trips to Jacksonville and Enterprise over the beautiful St. John's, by the De Bary steamers and those of the Florida Railway and Navigation Company from Titusville to Rock Ledge and Melbourne, on the Indian River. While these routes of interesting travel are as well managed as I found them, ennui will not again banish me from Florida.

Mr. Disston and his associates having been incorporated under the title of the Atlantic and Gulf Canal and Okeechobee Land Company, contracted to drain the swamp and overflowed lands belonging to the State. New life seemed to animate every citizen of Florida, and activity was everywhere apparent. About the close of the year Sir Charles Reed came to the United States for the purpose of selecting fitting sites for colonies of enterprising Englishmen. Mr. Disston, who had from the first seen that to obtain advantage from his vast purchase he must promote settlement, approached Sir Charles, to whom before the close of 1881 he had sold two million acres,

upon which quite a number of flourishing settlements were soon made. Here are some of the immediate results of the change that had taken place. To a total railroad mileage of 548 miles, the construction of the first of which was, as has been shown, provided for by the national government in 1835, there have been added 1,312 miles of road which are now in operation. No census since that of 1880 has been taken, but I believe that the population will more than double during the passing decade, and that Florida is moving rapidly to prominence among the non-mineral-producing States of the Union.' Many of my readers will doubtless refuse to accept this prediction. Let me therefore enumerate to these doubting Thomases some of the things this wonderful State, three of whose sides are bathed by the waters of the Gulf Stream, and whose entire surface is daily fanned by ocean breezes, produces in profusion, and without exhausting labor. In J. G. Knapp's little book entitled "Only One Florida," I find this statement of the results of Florida's emancipation :

"Commerce opened her doors wider than ever before. Steamboats plowed seas and rivers ; railroads were laid through the land. The climate and soil were found more prolific for other things than cotton. If oranges took the lead, other things followed close in their wake. Fruits and vegetables from the North grew and matured earlier, often better, than there. Those from the semi-tropical regions of the Mediterranean, from the tropics of Cuba and Mexico, from distant Japan and China, met and mingled, and many of them flourished better than in regions whence they came. Corn, Irish potatoes, onions, cabbages, cauliflowers, melons, cucumbers, beets, carrots, tomatoes, egg-plants, peas, beans, and strawberries flourished and matured for the markets when the

¹ A State census was taken in 1885, with a result confirming my estimate.

regions whence they came are wrapped in ice. From the adjoining States came pecans, grapes, plums, pears, Ogeechee limes and peaches. From the tropics the list is longest, and the kinds are best—oranges, limes, citrons, shaddocks, and grape fruits—improved by the climate and the changes of location ; but there came also the mangoes, the sweet and sour sops, chiramoyas, and Jamaica apples, guavas, bananas, paw-paws, dates, cocoa-nuts, pineapples, and sapadilloes. Casava, yams, and arrow-roots were added to the Florida list, with textile plants, and flowers innumerable. Experiments are multiplying new plants, and new varieties come from other regions, until their number exceeds the seedmen's catalogues, and men are surprised at the numbers and variety they already see, and wonder when will Florida's capabilities end. The number is now only equalled by the heterogeneity of the climate and soil."

Having verified by observation and inquiry this long list of Florida's capabilities, I am prepared to endorse it "correct as far as it goes," but must indicate some of its omissions. Every variety of the mulberry I have ever seen is indigenous to Florida, and invites the women of the State to engage in the gentle and beautiful work of producing raw silk. But I mention the mulberry incidentally in passing ; the omissions I meant to note were of great staples, such as the best varieties of sugar-cane grown in Cuba, together with all the varieties of saccharine sorghum, rice, tobacco, indigo, and a long list of nutritious grasses and fodder plants, which, from the adaptation of particular species to each of the differing temperatures that prevail between tropical Florida and the southern line of Georgia and Alabama will enable her to maintain in all parts of the State droves of cattle without special winter feeding. Justice to Mr. Knapp and

his admirable pamphlet requires me to credit him in this connection with this supplemental catalogue of Florida's native resources:

"The forests of Florida produce a greater variety of ornamental woods for ceilings, panels, and furniture than can be found in any other State—perhaps all the other States. Beside full fifty varieties of sub-tropical trees found in no other State, growing on the keys and coasts of the mainland of South Florida, in the woods and forests of the State are found the black walnut, the cherry, the red, white, water, and live oaks, the magnolias, the chinaberry, the sweet and black gums, the cypress, the cedar, the bays and palmettoes, outrivalling in colors and shades the woods of other States; and, finally, the pines of Florida, as the finest of ornamental wood, excel the brush and stains of all the painters of the world."

Early on the morning of the 17th of March I started from Kissimmee City to visit St. Cloud, a large experimental farm under the charge of Captain R. E. Rose, the farms of the brothers Lupfer, and others, if time should permit. Our route for several miles was through stretches of black vegetable mould that had been reclaimed by draining East Lake of its overflow. On either side of the broad roads were ditches of sufficient depth to carry off the flow of springs which seemed to abound, and the surplus rain which falls during the autumn; but nowhere did we see a cut deep enough to expose the depth of the soil. The drainage of the immense body of these lands which surrounds East Lake was effected by the construction of what the report of a State commission describes as "a canal to and into Lake Tahoekekaliga, the length of which is three and two tenths miles, the width from thirty-three to thirty-six feet, and the depth four to seven feet." The average current through this canal is stated to be one and

a half miles per hour. St. Cloud, or the Rose farm, as it is popularly called, is on the west bank of East Lake Tahoekekaliga, and is intersected by the canal. This farm is no longer an experiment. None of the land it embraces has been under cultivation three years, and most of the crop we saw here and at Lupfer's had been planted in freshly broken sod. Notwithstanding the freshness and probable sourness of the soil, we found on each of these places a demonstration of the fact that all the vegetables and berries that can be grown in Pennsylvania and New Jersey can be produced in Florida with less care and labor. We did not see marketable egg-plants or cauliflower, because the extraordinary price which had been offered by New York commission houses for the February crop of these vegetables had led to the shipment of every marketable one that could be gathered. The beds of sugarcane, sorghum, and other saccharine plants at St. Cloud are in charge of a gentleman from Louisiana of large experience in sugar growing. Cane had already attained an average height of about a foot, though we were assured that Louisiana planters, fearing frost, do not care to begin working cane until after St. Patrick's day. It was also said that, owing to the longer season, Florida cane always tasselled, while a stock that tasselled in Louisiana was an exception in a field. In the barnyard we were shown several stacks of rice straw, which is said to be a nutritious fodder of which cattle and horses are very fond. We also saw bins full of beautiful rice, which had been reserved as seed for this year's crop.

Leaving St. Cloud we passed along the north beach of the lake, which is a natural sand road that is said to require no repairing, to the Lupfer's farms. Each of these contains about forty acres, and neither of them has been

one half cleared of the magnificent cypress trees, some of which had probably for centuries shaded the swamp of which these farms had been part. The Messrs. Lupfer grew up together on a farm in Franklin County, Pennsylvania. Finding the little homestead too contracted they had emigrated to Kansas, where after a few years the rigor of the climate affected the health of the wife of one of them, when yielding to the advice of their kinsman, Col. McClure, of the *Philadelphia Times*, who passes part of every winter in the South, they sold their Kansas farms and settled each on forty acres of cypress land on the east bank of East Lake Tahopekaliga. This is but their second year, yet they have accounts from their Northern agents which show that they have sold a considerable succession of crops at remunerative prices.

Pointing with enthusiasm to a magnificent cypress that stood in the midst of the cleared land of one of the brothers, I queried as to its probable age. He was confident that it was much more than a century old, and thought it probable that it was in its third century. He, too, had admired it and had hoped to save it, but good farming required him to remove it. In reply to an inquiry concerning the cost of clearing land of a forest of such trees as had covered his fields, he told me that each tree more than paid for its removal, as they could be floated through the canal and lakes to a market in which cypress lumber was in quick demand. Here I raised the question of the pay of farm-laborers, and was surprised to learn that the Messrs. Lupfer had not paid such annual wages in Pennsylvania or Kansas as they were paying in Florida. Their laborers were mostly colored men, and the wages were \$1.25 per day, or a dollar with rations, as the men chose. It may not be improper for me to remark in

passing that the farms of which I have spoken, and others which time did not permit us to visit, are contiguous to the picturesque site laid out for the new town of Runnymede, in which it is intended that a young orange grove shall be part of every lot offered for sale as a home. On my return to Kissimmee City I addressed a note to Captain Rose, making some inquiries as to the certainty and profits of crops on reclaimed lands, and received the following note under the date of the 19th of March:

“In reply to your inquiries as to the products of the reclaimed lands of the Kissimmee Valley, I take pleasure in informing you that sugar-cane planted one year after reclamation yielded sugar at the rate of five thousand pounds per acre, by the use of the most primitive apparatus, the test and work having been made under the control of Hon. John M. Bryan and Clay Coleman, Esq. With improved apparatus the yield would have been fully one fourth more. Rice at St. Cloud, in similar land, netted 1,600 bushels from forty acres, after a loss of at least one third, owing to loss incidental to a new enterprise and inexperienced laborers. From two and one fifth acres of fair average ground, which had been reclaimed but one year, I gathered and sacked 148 bushels of rice, being 67.7 bushels per acre. The rice was planted Aug. 1st and 15th, cut and harvested December 1st to 10th, much loss occurring from want of proper appliances. Other crops, corn, vegetables, etc., have done well, oats in particular being now ready for harvest (March 19th). The yield is estimated at present at about fifty bushels per acre. Tobacco will be planted soon, and from all former experience it should do as well as in Cuba.”

Taking a steam tug on the 18th of March, I crossed Lake Tahoekekaliga to South Port, at which point we entered a canal, which is 3.6 miles long, 70 feet wide, and

from 5 to 8 feet deep, which runs into Cypress Lake. While passing through this canal I was greatly impressed by the number of fine cattle that were grazing on the natural grasses which soon cover reclaimed land, all of which were in excellent condition. An approaching gust prevented our crossing Cypress Lake, and drove us back to South Port, which we reached in time to find shelter in the hospitable home of Mr. A. S. Kinsman, who in 1883 brought with him from Central New York the experience derived from years of successful farming, his fine stock, and the most approved agricultural implements known to the farmers of the country. We found him in the field with his men, and were greeted by him as though we had been life-long friends. The wind rose to a gale, before which he and his men retired to shelter. During the hours of conversation with which he gratified me Mr. Kinsman more than confirmed the most enthusiastic statements of Captain Rose and the Lupfers as to the profits yielded by early vegetables, and as to Florida's adaptation to the culture of sugar, rice, and high-grade tobacco. In confirmation of what he said about sugar growing, he invited our attention to the fact that the cane planted at South Port, from which his land was divided by the drainage canal, by Capt. Rose in 1883, for purely experimental purposes, and which had been neglected since its first crop had been gathered, had put forth each year, as it was now doing, what would, if sugar works to consume it existed, be a paying crop of cane. The object with which Capt. Rose had planted this cane, to which my attention had been invited as our steamer entered the canal, was not to ascertain whether it could be grown successfully, but to obtain specimens of Florida cane for exhibition in competition with the displays to be

made by Louisiana and Mexico at the then contemplated exhibitions at New Orleans and Jacksonville, at both of which the premium was awarded to his crop.

While at Kissimmee I was a guest at the Tropical Hotel. When in the dining-room one day I heard a gentleman, who appeared to be intimate with Egyptian affairs, say that the reclaimed lands of Florida partook of the character of the most productive land of the valley of the Nile. Hearing that the author of this statement had been sent by the British government on several missions to Egypt, which required him to investigate the condition of laborers and the management of the lands of the valley, I sought to learn more of him. He proved to be Mr. H. Villiers Stuart, of Dromana, County Waterford, who, having been a member of successive Parliaments, had declined to contest the last election because he desired to superintend the development of the large bodies of land he had purchased in Orange County, Florida. His duties as a government commissioner required him to investigate questions relating to the cost of production and the compensation paid laborers in the valley of the Nile. I need hardly add to this statement that I found in Mr. Stuart an educated, intelligent, and practical man. Among other information he gave me was that he had purchased both upland and reclaimed lands, and that his son would come over and engage with Captain Rose in the management of St. Cloud for from one to three years, preparatory to taking charge of the cultivation of farms which would be respectively devoted to winter vegetables for Northern markets and such staples as rice, sugar, and tobacco. He said that the character of his reclaimed fields was identical with that of the best Nile fields, and added that both required, though

in different degrees, an annual overflow, that in Florida being less heavy and more gentle than that required by the Nile; and that to deepen or widen the drainage canals sufficiently to carry off, as it fell, the apparent excess of autumnal rain, would, in his judgment, inflict great and possibly irreparable injury upon the vast fields already reclaimed, and the immeasurably greater fields yet to be drained.

With the full and well-considered statements of Mr. Stuart, more than confirming the favorable impressions I had derived from my visits to the farms referred to, I sought a new field of investigation and turned my attention from the Lake country to the natural alluvial fields of Middle and Lower Florida.

Rock Ledge, on the Indian River, seemed to be a good point from which to make this investigation. The immense hotel at Rock Ledge is surrounded, except on its river front, by groves of orange trees, the fruit of which is larger, of richer hue and more delicious flavor than any found in the groves of Louisiana, California, or in Florida elsewhere than in what is known as the Indian River country. Indeed, it appears to be conceded that this section of country is justly pre-eminent for the excellence of its oranges and all kindred fruits. Here, too, we are in the pineapple and banana country, as well as that of orchids, resurrection grass, and other wonderful parasites. Joining a party which embraced Senators Morrill and Plumb, with the ladies of their families, I went by boat to the farm of Dr. William Wittfeld at Georgiana. Our steamboat, though but a clever tug, could not land us, but bateaux were ready to carry us to the shore. It was an agreeable surprise to find in the proprietor of this celebrated farm one who had for some years been my con-

stituent, and who had supported me when I resigned the dignity and quiet of judicial life and dedicated my future to political strife, by entering upon what I knew to be a hopeless canvass for Congress in support of Fremont and Dayton on the platform of free thought, free speech, free land, and free men. Dr. Wittfeld is a German, and, like so many of the scholarly young men of that date, participated in the revolution of 1848, and when defeated came a fugitive to this country. His farm includes a considerable body of land between the Indian and Banana rivers, extending northward from their confluence. Shells and washed pebbles mark the low land along both rivers, but the broad ridge of upland attains an elevation I think of from seventy to one hundred feet. It was on this ridge that for the first time I saw pineapples growing in large beds under careful culture. Dr. Wittfeld, who found evident pleasure in conducting the party to points at which there was any thing that might interest them, assured us that pineapples generously repay the care bestowed upon them, and that bananas, which he cultivates in great numbers for market, are a profitable crop. After what I have said of oranges and kindred fruits in this region, I need hardly add that they pay well, but may note the fact that on Dr. Wittfeld's farm the trees are not in symmetrical groves, as they are elsewhere, but scattered as if they had been planted without regard to symmetry, but in order to utilize bits of land that without them might be waste. The pleasure with which the Doctor brought to our notice orchids and other curious or beautiful parasites that abound on his trees was really refreshing. Having made a tour of the place and entered our names in the book spread upon a table at the door of the cottage in which boarders are accommodated, I asked the Doc-

tor whether sugar can be grown successfully on any of his land, to which he replied: "Yes, sir; upon all of it as successfully as in Cuba. I dug up a sugar patch last summer after it had ratooned seventeen years, without replanting, and had tasselled in the last as well as in the earlier years. That it tasselled proved that each season was long enough to let cane mature, and thus acquire full saccharine strength." "Why did you eradicate what had been so successful?" "Because no sugar factories were established, as they ought to have been, and I had no market for my cane or syrup." Hearing this reply, Senator Morrill said: "Did not frost hurt your cane during all that time?" "No, sir, not once in the seventeen years." "Not in 1872?" "No, sir; it touched the joints of the ratoons or sprouts enough to make them unfit for seed, but did not affect the quantity or quality of the syrup they yielded." Interposing, I said to my old friend, who had not only recognized me but brought himself to my memory: "Doctor, I am unwilling to be mistaken on this point; will I be justified in quoting you as saying that during the seventeen years you obtained satisfactory crops from one planting, you never replanted any part of it?" "No," replied the Doctor, "I did not say precisely that. The Senator inquired about the destructive effect of frost, and I said it had never affected the growth of the cane or its yield of saccharine matter, but there are other enemies to cane-fields than frost. Bears are very fond of sugarcane, as are some other vermin. I more than once had to replant small patches which had been rooted up."

I naturally lingered with the Doctor for the latest boat to depart for the tug, that I might obtain his opinion on some points which in my opinion are of great economic

importance at this time. I am at liberty to quote him as entertaining no doubt as to the capability of growing with sugar tobacco equal to the best Cuban leaf, and rice and indigo both of high grade. He is confident that all these commodities will soon be quoted as among Florida's annual staple crops, and that when capital shall erect sugar-houses with improved appliances, and put them in charge of experienced superintendents, Florida farmers will supply them with ample stores of cane richer in sugar than ever was cut in Louisiana.

As so little is known of the agricultural capacity of Southern Florida, I will, at the risk of being regarded as tedious, adduce the testimony of one more witness whose character and experience are vouched for by R. P. Paddison, an accomplished gentleman and the courteous commander of the finest boat in the service of the Florida Railway and Navigation Company. City Point Landing, on the west bank of the Indian River, is on the farm of Mr. A. L. Hatch, an old Floridian, who combines with the care of his farm and landing large dealings in general merchandise. As we approached the Point, Captain Paddison, in response to my quest for accurate information, invited me to visit Mr. Hatch's farm while the freight waiting on the landing should be taken aboard, and notified the passengers generally that they could go ashore for fifteen minutes. As at Dr. Wittfeld's farm, shells and pebbles covered the surface near the river, so, too, as we ascended the first ridge, we found the soil to be black vegetable loam, quite like the reclaimed land around the lakes. The country to the west appeared to be a succession of valleys and ridges ascending to the westward, both hill and dale being covered thickly with the rich and varied foliage, flowers, and the blossoms and fruits of

Lower Florida. Time would not permit an elaborate examination of this farm, but, brief as was our stay, I was able to see that it was very nearly a duplicate of Dr. Wittfeld's.

What I saw whetted my appetite for more definite information, and on arriving at Jacksonville I addressed a letter of general inquiry to Captain Paddison as to the production of the farm and Mr. Hatch's opinion of the practicability of raising sugar profitably and in commercial quantities upon his land. In a few days I received a reply from the Captain saying that he had referred my note to Mr. Hatch in order to secure more accurate information than he was personally able to give. Mr. Hatch's reply is dated City Point, Florida, April 23d, and is as follows:

"Mr. Kelley's communication to you was handed me last evening. I scarcely know the precise wish of Mr. Kelley in the matter. If he refers to this place, 'City Point,' I would state that the property consists of fifteen acres of land, on which the steamer wharf, general merchandise store, and post-office, one thousand two hundred orange trees in grove (five hundred of which are bearing), together with bananas and a variety of other fruits, vegetables, etc., etc., is the property of the undersigned. This is the principal shipping point for this section, being central for City Point hammock, which hammock extends some six miles on the river, along which it is almost a continuous orange grove, though most of the trees are under bearing age yet.

"Sugar-cane would do finely here on the lower lands, but such lands are too valuable now for other products. Vegetables, such as are marketed from here at this time, pay better than cane would. Tomatoes are bringing now \$3 to \$4 per crate, snap beans \$2 to \$2.50, cauliflowers \$5 to \$6 per crate

of six to eight heads, Irish potatoes \$6 to \$8 per barrel, egg-plants, \$12 to \$20 per barrel, cabbage \$3 to \$4 per barrel. Oranges shipped this month have sold in eastern cities at \$6 to \$7 per box."

I entered Florida with a keen desire to visit Dade and Monroe counties, which, as they are south of the 27th degree, below which frost is unknown, may be regarded as tropical country. But as most of this immense territory is still "unsurveyed and but partly explored," and the Florida Southern road had been completed but to Punta Gorda, on Charlotte Harbor, three hundred miles from Palatka, its initial point, and the hotel at that place had not yet been fully furnished, the trip involved much possible discomfort; and as the road will before another season be extended to Punta Rassa, one hundred miles farther south on San Carlos Bay, I surrendered the tickets I had procured and postponed my visit to the gulf coast of Monroe County. To reach the cocoa-nut "walks" and other tropical curiosities of the Atlantic coast of Dade County seemed to involve a still greater measure of fatigue and discomfort. It was with a keen sense of personal disappointment that I came to a realizing sense of the fact that the fatigue and exposure involved in the trip were more than I ought to encounter, for I had for more than a year looked forward with pleasant anticipations to an inspection of the magnificent enterprise of my friend, Mr. Ezra Osborne, of Middletown, New Jersey, which is destined to supply our own and foreign markets with cocoa-nuts.

The cocoa-nut palm is a beautiful and lofty tree, growing to a height of from fifty to seventy feet, with a cylindrical stem, which rarely exceeds a diameter of eighteen inches at the base. It terminates in a crown of waving

pinnate leaves, among which its heavy fruit, in thick, fibrous husks, hangs in graceful clusters. It is a salt-water tree, and attains its greatest luxuriance and longevity along sandy shores and reefs, close to the sea, where the ocean may water its roots. The nut is an important product of almost every tropical land, but is so sensitive to frost that it has never been known to mature north of the 27th degree. Small groves have existed in southern Florida for a number of years. The uses of the cocoa-nut and its husk are numbered by the hundred, the Chinese claiming to have a separate use for it for every day in the year.

Mr. Osborne's plantation, or "walk," is near Lake Worth, to the south of which his strip of cocoa-nut land extends about seventy miles. When the last planting season closed, thirty miles had been planted with carefully selected nuts, each of which had put forth a healthy sprout before it was set. It is said that cocoa-nut trees should be set twenty feet apart, and that space has been given to each of Mr. Osborne's three hundred and thirty odd thousand seedlings. The year in which the planting of the remaining forty miles of his territory will be completed will depend upon his success in obtaining cargoes of trustworthy seed nuts. Cocoa-nut trees begin to bear in from six to eight years, and it is possible that Mr. Osborne may derive seed for his later plantings from his own graceful trees. When it is considered that his "walk" will include from eight hundred thousand to one million trees, and that each matured cocoa-nut tree yields, throughout a century or more, one hundred and fifty to three hundred nuts per annum, or rather in every fourteen months, which time is required to mature a crop, it will be seen that no apprehension need be felt as to the

ability of Florida to meet the growing demand of the United States for the infinite variety of food, cosmetics, and chemical agents these nuts furnish, or to supply the demand for coir cordage, woven fabrics, mats, etc., into which the husks of the nut are now profitably converted.

But Florida should derive millions of dollars annually from the production by her women and children of a fibre as much more precious than that to be derived from the cocoa-nut as it is more delicate. The mulberry is indigenous to every part of Florida. It is impossible to estimate the value of the silk that might be produced by the women and children of Florida, if the mothers of that State would but regard the prayers of that noble band of women who, in the hope of providing gentle and profitable employment for their less fortunate countrywomen, organized the "Women's Silk Association of America," whose office is at Philadelphia, and whose president and secretary are Mrs. John Lucas and Mrs. V. C. Haven, both of that city. In the hope of inducing enterprising manufacturers and merchants to organize this delicate industry, the annual profit from which would soon outstrip the growing income derived from the oranges of Florida, I digress far enough to state that, owing to the diseased or exhausted condition of native food supplies of the silk-producing countries of Western Europe, their manufacturers were at the time of the completion of the Union-Central Pacific road, in 1869, paying \$20,000,000 annually to China and Japan for a supply of those tiny objects, silk-worm eggs, from which to produce an annual crop of healthy worms. That enormous commerce in this minute commodity, so far as I am informed, still continues in undiminished volume; but I cannot affirm the fact on official information such as enables me to state that the

invoice value of the oriental silk-worm eggs that were carried by our railroads from San Francisco to New York, and shipped thence by transatlantic steamers, prior to the repeal of the duty of ten per cent. imposed on these eggs, was about \$20,000,000. I hope it will be noted that I am not speaking of raw, or thrown, or spun silk, but of a by product, the annual commercial value of which is the immense sum I have named. The direct commercial product is silk, raw, spun, thrown, or further advanced, the manipulation of which in all stages seems to belong peculiarly to women and children.

To earn these enormous values, nature invites the careful organization, on commercial principles, of this light and profitable industry in Florida, Georgia, Alabama, and other Southern States. Should any words of mine lead to the elaborate organization of this industry I will feel that I have not lived in vain ; for its establishment would impart a new sense of the value of life to the shiftless, listless, hopeless matrons, wives, and daughters travellers see loitering about the mulberry-shaded cabins of old-time Florida, Georgia, and Alabama crackers. The money received for this silk would be clear profit, as its production and preparation for market would involve the purchase of no machinery. The women and children could themselves make all the apparatus they need from materials to be found in or about their homes. Cocoons are worth from 80 cents to \$1 a pound, and reeled silk, which is known to commerce as raw silk, is worth \$5 a pound, and there is no reason why the Southern women of whom I speak, "poor whites or low downs" of former days, may not reel the cocoons they may raise, as Italian peasants reel their cocoons. Our importation of raw silk may be stated at 6,000,000 pounds per year, the market value of

which is \$30,000,000, every dollar of which would, as has just been said, be profit or wages for gentle and interesting work performed by women and children, who are really of fine fibre and sterling character, but whose lives are spent in what may be fairly described as semi-barbarous idleness.

This too-extended paper must come to a close, yet I cannot bring it to a conclusion without some words of warning. As there is an infinite variety of soil and climate in Florida, no man, whether he be a capitalist seeking investments, or a poor man seeking relief for himself or a beloved member of his family from the rigors of our Northern climate, should make an investment within the limits of this wonderful State until he has investigated the adaptation of the home or farm in which he proposes to establish his family or to invest his capital, to the purposes to which he proposes to apply it. In addition to such investigation it goes without saying that parties proposing to purchase land should have the title to that which they propose to buy carefully scrutinized and established. In contrast with the necessity for these precautions, travellers may be guided by faith and depend on finding a large, well-lighted and ventilated, and nicely-kept hotel in every town on the rapidly extending railroads and navigable water-courses of the State. In Jacksonville the one commodious hotel I found in 1875, "The National," has been succeeded by more than half a dozen equally well kept and more capacious houses, each of which receives enthusiastic commendation from departing guests. Of the one in which I and mine sought shelter, "The Windsor," I may say, without meaning to be invidious, we found a home to which we bade adieu with regret.

Why in view of Florida's immense and infinitely varied

resources may I not part with my subject in terms of glowing congratulation and assurance to the State and her people that a career of immediate and increasing prosperity awaits her and her rapidly augmenting population. From the foregoing statements it would seem that I might safely do this; but as history proverbially repeats itself I dare not fail to admonish her people that the corridors leading to both houses of Congress are vocal with mutterings of a purpose to enact legislation detrimental to her rice and sugar industries, and of the further purpose to resist the proposed repeal of laws which tax and harass growers of tobacco, which threats are even now casting a sinister shadow athwart what otherwise seems to be her pathway toward agricultural pre-eminence. Dreamy doctrinaires are threatening her people with another application of the Virginia and Kentucky resolutions and the free-trade dogmas of Richard Cobden. "Rice," say they, "is a food product, a raw material, and should not be taxed by a customs duty. We must therefore put rice on the free list. Sugar is also a raw material and a food product, and should therefore also be on the free list. Let us then repeal the duties on rice and sugar." "Tobacco," they add, "is not a food product, but is regarded by all of us who are holier than our brethren as a product so pernicious that we should, as a pious duty, harass by invidious taxation every man who grows the baneful weed." To enforce the suggestion that the duties on sugar and rice should be repealed, it is said that, by the abolition of these duties, the amount of the annual surplus would be sufficiently reduced to justify the retention during peace of the internal taxes, which, under our Constitution, have never been imposed for other than war purposes. That the success of these

propositions would be disastrous to Florida needs no demonstration. The pretence that the abolition or reduction of the duties on sugar is necessary to effect a reduction of the annual revenue is false. It is a mere pretext for the destruction of a great industry now just expanding into national proportions. The revenue should be reduced, but it should be done without the destruction of any established or promising industry. The patriotic way to not only diminish but to abolish the revenue derived from imported sugar and molasses, would be to produce our own supply, as under guaranteed protective duties we can do from the cane of Louisiana, the cane, sorghum, and casava of Florida, the beet roots of California, and the sorghum and corn of the Northwestern States.

Let us therefore hope that the people of the North, whose resources have been developed and whose industries have been perfected by the health-giving operations of protective tariffs, will stand by the interests of the awakened people of the New South, and secure to them the advantages of that system of duties, which in less than a quarter of a century has transferred the "workshop of the world" from free-trade England to the protective United States of America.

LETTER III.

ANNISTON—A ROMANCE OF THE NEW SOUTH.

WASHINGTON, D. C., May 19, 1887.

In the course of my communication to the *Manufacturers' Record*, which appeared in the issue of the 25th of December last, I ventured the prediction that, though the name of Anniston was hardly recognized by the popular ear, that place would, before two decades should have passed, be one of the most remarkable centres of iron, steel, and kindred industries in those wonderfully endowed States, Georgia, Alabama, and Tennessee.

When I arrived at the Inn, on the last day of March, after the lapse of little more than three months from the publication of my prediction, I found it had been verified, and that Anniston had already attracted to itself the notice of the country as, in many respects, the most remarkable centre of the iron industry in the Southern States. But before proceeding to describe what had occurred between the close of December and the beginning of April, you must permit me to borrow from others the authentic story of the conception, organization, and early history of Anniston. I am happy in being the possessor of a memorial to the late Gen. Daniel Tyler, prepared from personal and official papers by Donald G. Mitchell, for private circulation among the friends of the family. It was my privilege to know Gen. Tyler somewhat intimately while he was on duty near Washington, in the early days of the

war, and I cherish this memorial, not only as a tribute to one whom I had learned to respect as a citizen and a soldier, but as being in itself replete with information and suggestion. I draw from its pages the following letters, which will, better than I possibly can do, state the principles on which Anniston is founded, and by which the acquisition of its vast stores of materials for future manufacture was sternly guided.

January 18, 1879.

Hon. J. LITTLE SMITH,

House of Representatives, Montgomery, Ala.

MY DEAR SIR :—My son, Mr. Alfred L. Tyler, has desired me to communicate with you, and give you some data as to our operations at Anniston, in Calhoun County, Ala.

Six years ago last spring we purchased a farm, the average product of which was not over fifteen bags of cotton per annum, and built on it a furnace, at a cash investment of \$200,000, being invited into the State of Alabama by notices given through the papers that manufacturing interests were well protected in the State, and that the iron industry of this section of the United States was probably unequalled by that of any other section.

We have not been disappointed with our investment, and are satisfied with it ; and we shall probably go on and add to it in the future, for we have come here to *stay*, and to cast our lot among the people of the State of Alabama.

When we commenced our operations in Calhoun County we made up our minds that, in order to establish ourselves with a community around us that would be satisfactory, it would be necessary for us to establish schools, churches, etc., and we have done all this. In the public schools of that place we could to-day fit a lad for any college in New England. We have established a colored school second probably to no other of that class in the State of Alabama ; and we have done all

we could to invite into our company the best class of labor, white or black, that we could obtain, and to give to their children such an education as would elevate them, if possible, in their future careers.

We also made up our minds that, in order to get good labor, it must be paid for liberally ; and, while our neighbors have been paying 50 and 60 cents per day, we have paid 80 cents, 90 cents, and \$1 per day to our laborers, believing that it was our duty to give them the means of making a comfortable living, in order to exact from them a rigid obedience to the laws. In other words, we give them the means of living comfortably, and therefore they have no excuse for stealing.

Under the laws of the State, and through the Probate Court, we established a borough some two years ago ; but, owing to some legal difficulties, we find that the organization under the general law does not give us that protection which will enable us to keep out whisky-selling and prevent misdemeanors and crime, and we have therefore applied to the legislature for an act of incorporation, such as the constitution of the State provides for ; and it is this act that I ask you to advocate before the House of Representatives, if you think our cause a good one. *We do not ask for any exclusive privileges.* All we want is the power to protect our property, to foster education, to keep out whisky-drinking, to sustain good morals, and to introduce into our business a system of honesty and integrity that may be of some little value to the population around us. During the last five years our efforts have added to the productive industries of the State of Alabama over \$175,000 annually, and we expect in the future that this production will be very largely increased.

Under these circumstances, if you think we are entitled to your influence in the legislature, I shall be most happy to acknowledge myself under obligations to you for your personal exertions in my behalf. With the greatest respect,

Your friend and servant,

DAN. TYLER.

For the present it must suffice to say that the exalted ideal expressed in this appeal for healthful legislation has never been abandoned by those who have controlled affairs at Anniston. From this treasured memorial I draw another letter which tells how accidentally Gen. Tyler's attention was drawn to the worn-out cotton-field on which Anniston stands, as well as the toilsome and thorough reconnoissance the veteran soldier made of the field of his future operations before entering into an engagement with obstacles few men of his years would have attempted to vanquish. It is from Mr. Samuel Noble to his present copartner, the General's son, Mr. Alfred L. Tyler.

ANNISTON, ALA., February 1, 1883.

MY DEAR SIR :—The death of the General recalls as vividly as if it were but yesterday my first meeting with him. In the spring of 1872, when you were acting Vice-President of the South Carolina Railroad, I visited you at your office in Charleston on business, bearing a letter of introduction from J. M. Selkirk, Superintendent of the Rome (Ga.) Railroad. While at your desk talking to you I noticed an aged gentleman whose whole attention was fixed on the morning paper. Presently he laid it down and went to one corner of your office and consulted a map on the wall. A few moments after he came to the desk where you and I were talking, and said to me : "When I was building the Macon & Western Railroad, some thirty years ago, I heard from men who were at work for me of large bodies of iron ore in your part of the State. Do you know any thing about it?" His earnest manner, and the interest he manifested in putting the question impressed me at once. I said to him he could not have questioned me on a subject with which I was more familiar ; that there was hardly an iron property in Georgia or Alabama I did not know. He then said : "When I was a young man I went into the iron

business in Pennsylvania, and made one of the first attempts to make iron with anthracite coal. I went over to Wales and brought over a founder to run the furnace, as at that time it was not supposed that there was any founder in the United States who could blow an anthracite furnace. We had trouble from the start with the founder, who dictated, and the furnace, which chilled up every time we started. The difficulties we encountered and the disadvantages we contended against were so great that I resolved never to touch or become interested in any iron property that lacked a single advantage—that had not on it every thing in abundance, and accessible for the cheap production of good iron. I have had the iron business burned into me, and have not forgotten my first experience ; but if I can find a property that has on it every thing for making iron without buying any raw material, or bringing any to it, I might be tempted to go into the business again.”

I said I had been in the iron business myself, and then owned a property that combined in itself advantages over every other property I knew. I told him I believed there was no place in the South then accessible to equal it for making good and cheap iron. Nature could hardly have done more for it, and it would be a real pleasure to me, I continued, if he would come to see it, as I was sure it would interest him greatly. Hesitating a moment, he said : “ I will try and come up and look at it within the next two weeks.”

I had but little idea that a man of his age would, on a second thought, take such a long and uncomfortable journey, and was surprised at his coming to Rome some ten days afterwards for a visit of inspection. At that time there was no railroad station, and only three old, unfinished houses at what is now the town of Anniston. So we stopped at Oxford, two miles below, where we found horses. He rode with me over the country, exploring every hill and valley, gathering information from everybody he met, and from the inmates of every house he passed, about the timber lands, limestone and rock quar-

ries—their location and extent, and then going to the places indicated and examining them himself.

Familiar as I thought I was with the whole country, I found while with him how much there was I had not looked into, or thought of investigating. Nothing escaped his observation. In his company I made the most thorough and exhaustive exploration of the country I ever made before or since. I was surprised at his knowledge and practical ideas concerning the requisites for iron manufacture. We rode for three days in succession, returning to the hotel in Oxford after dark, I thoroughly tired out, but the General fresh as ever. He would go down from his room, and with some choice tea—a present from an English sea-captain—make a hot cup for both. At that time the hotel people did not know how tea was “cooked.” Sipping our Hyson, we talked over what had been seen during the day, and planned for the next. The General, I knew, was surprised and pleased with the property, although he said but little. After inquiring about the market for and price of iron, and the probable consumption at Rome, he said: “I will go back and bring up Alfred to look at it.”

The rest you know. The visit led to the organization of the Woodstock Iron Company, and shortly after to the foundation of the town of Anniston. Then came the building up of a business of such magnitude and prosperity as led to a great increase of wealth and population in this section of the State.

I never think of my first meeting with the General without being deeply impressed with its beneficial results to this portion of the country, a meeting which, at the time, was apparently a mere accident. From that time to my last interview with him, in New York, two months before his death, his clear and active mind was always planning and suggesting something for the benefit of Anniston and its people. Plans and suggestions that to us at first seemed impracticable and premature, we found from his clear reasoning and hearty co-oper-

ation not only could be carried out but were needed. In acting on his suggestions and plans, we found how wise he was in forethought, and wondered why we had not thought of the plans ourselves. To his earnest exertions and liberality we are indebted for the water-works, the cotton factory, and car works, the promotion of emigration, the successful cultivation of the grasses, the introduction of blooded cattle and improved stock, large and more comfortable dwellings for the workingmen, the building of churches and schools for them, and facilities for the education of their children. He was a grand old man—one of the most generous and unselfish I ever knew, always interested in and planning for the welfare of others, and never so happy as when those he aided profited by his advice and assistance. I hoped he would have lived for years to come, and enjoyed the proud satisfaction of seeing the plans he had so generously and prudently formed for the welfare of the people of the town he had founded grown to perfection. We shall miss him greatly. Who will impress us with the feeling of confidence in every new plan and undertaking that he was wont to give? To whom shall we look for the sound advice his age, experience, and clear mind alone could impart? We miss him daily. We will always miss him.

Yours sincerely,

SAMUEL NOBLE.

During the war a furnace had been built at Oxford, south of the present site of Anniston, but contiguous thereto, which had been operated for the Confederate government, and been destroyed by a raiding party under the command of Gen. Croxton, whose brigade had been separated from the command of Gen. Wilson at or near Selma. It was, I think, Mr. Noble's knowledge of this furnace, and the character of iron it had made, which led him to explore the red hills north of Oxford, on which Anniston has been built. Meanwhile, in association with

his ingenious father, who, though now nearly eighty-four years old, is in the enjoyment of vigorous life, and his five brothers, he had established at Rome, Ga., the manufacture of car wheels ; and it was when visiting the office of Mr. Alfred L. Tyler, who was manager of the South Carolina Railroad, in the hope of securing a contract for wheels, that the interview occurred between him and the General which led to the founding of Anniston and the erection of what is known as Furnace No. 1, which was completed in April, 1873. With the exception of an occasional stoppage for repairs, the operations of this furnace have been continuous since it was first blown in. Even during the protracted depression caused by the panic of 1873, which was so severely felt by the iron trade throughout the country, this furnace was worked to its full capacity, and the demand for its output was so steadily in excess of its capacity that the furnace known as Number 2 was built and blown in in 1879. The character of the iron produced was already established, not only as the "best Southern," but as standard car-wheel iron. Said a writer in a Nashville journal near the close of 1881 :

"The character of this iron was not the child of chance nor the result of an hour's work, but is the result of years of patient experiment. For three years the Woodstock Iron Company kept an expert analytical chemist employed at their furnaces, and by patience, painstaking, closely observing, and making very extensive experiments in the mixture of ores, they have succeeded in producing a car-wheel iron that for uniformity and hardness of chill, tenacity and strength of web when in the wheel, cannot be surpassed by any iron in the country."

I cannot, however, devote my entire space to the early history of Anniston, for I must tell of its growth and its

recent magical expansion. Such explorations as Mr. Noble tells us were made by himself and Gen. Tyler have been continued, and are in progress by expert agents to-day. The Woodstock and the Clifton Iron Companies have thus carefully selected and purchased more than 60,000 acres of the best hematite ores of the section, and more than thirty miles of the best fossiliferous iron ore in Alabama. These acquisitions brought them such vast forests of timber fit for use as charcoal that it is believed that Anniston's supply of charcoal timber is inexhaustible, inasmuch as the land that is stripped this year will be growing charcoal wood by the time it shall be reached again in turn.

For the simplification of accounts and the management of details three companies were organized: the Woodstock, of which I have spoken, the Clifton, with its two charcoal furnaces at Ironaton and Jenifer, with the land bought in its name, and the Anniston City Land Company. The Land Company was charged with the title to and care of the town site, the establishment of a town plan, the macadamization of the streets, the providing for an inexhaustible supply of water, and the appliances for so distributing it as to constitute a defence against fire, the lighting by electricity, and in brief the general management of a town as it has recently been confided to a municipal government. These estates were he'd as proprietary property till late in 1883, when town lots were laid out in Anniston and offered for sale. This opened the way for the erection of a very solid-looking little town, with its brick bank, post-office, telegraph office, newspaper offices, flouring mill and stores, from which a general supply of household and personal goods could be bought. The population was in December last estimated at from 4,000 to 4,500. Occa-

sionally an enthusiast would claim from 4,500 to 5,000 inhabitants. A count carefully made during April established the fact that there were considerably more than 7,000 people then in Anniston; that there were not 10,000 is palpably owing to the lack of materials to be used and the labor to use them in the construction of dwellings and business places. Four thousand mechanics and workmen must be added to the population to operate the new industries already commenced. The official reports to the Treasury Department show that the deposits in the First National Bank, on its organization, were about \$60,000. During the month of January they rose to nearly \$2,000,000, and were, three weeks ago, as I learned by inquiry, more than one million. The bank has been in operation three years. The legal rate of interest is 8 per cent. Its capital is \$100,000; its surplus is \$150,000, and Mr. D. T. Parker, its president, assured me that it had never lost a dollar by a discount.

In December the building in which axles are forged was found to be too small, and its enlargement and an increase of machinery sufficient to add fifty per cent. to its productive capacity was begun while I was there, and had been completed when I returned. Two furnaces of the most approved construction for the manufacture of coke iron, which will be capable of turning out two thousand tons per week, are going up under the superintendence of the celebrated firm of Faws & Hartman, of Philadelphia, every dollar of the money for their construction and working capital being in hand. On land adjoining these furnaces I found workmen engaged in constructing a pipe works which is expected to consume over 60,000 tons per annum of their product. This work is in charge of Major Anderson, a graduate of West Point

and a recent member of the engineer corps of the United States Army, and the location for the furnaces and pipe works has been selected with such prevision that the law of gravitation will be a constant factor in the mechanical operations of both establishments. In other words, an available descent will prevail from the room in which the pig iron is cast to the yard in which the finished pipe will be piled for shipment.

Three additional brick-yards have been put into operation, but have not been able to supply the current demand for bricks, and their capacity is already being enlarged. A planing mill of fine dimensions and modern appointments, which in April began to send forth its hum early and late, is also behindhand in filling orders. A bloomary for the manufacture of steel from local ores is in process of erection. During my visit Mr. Taylor, the projector of the Sciota fire-brick works and of the great works at or near Cincinnati, having visited Anniston and sent to his Ohio works specimens of brick clay, returned with bricks produced therefrom, secured a site for an establishment at Anniston, equal in capacity to either of his others, and having contracted for the delivery of 3,000,000 fire-bricks within given dates, started for home to bring with him skilled workmen to push his works to completion and to contract for houses framed and ready to be put upon the ground in sufficient number to accommodate the army of men he expects to employ. The commercial significance of this operation will be realized when it is known that the freight heretofore paid on fire-bricks to Anniston has been \$12 per thousand, all of which will be saved to her industries, showing an economy of \$36,000 on her first contract for fire-bricks from works to be established in her midst to utilize clay, which abounds within her limits.

The car shops have been the property of Noble Brothers, of whom there are six, only four of whom are, I think, interested in these works. Like the car-wheel and axle works they were established in accordance with the original design of the founders, to sell the product of the furnace as much advanced by manufacture as possible, and when, in 1879, furnace No. 2 had been completed, measures were taken to work part of its iron also into advanced forms. The first idea was to build only platform freight cars, but to build them so well as to establish the character of the firm. This was soon done. Contracts were then offered them for box cars, which they were building in December, and to my surprise when I returned this spring I found them making passenger cars, and learned that their works had been established as a shop for the repair, including upholstering, of the Mann boudoir cars, which are so popular on Southern roads. In response to an expression of surprise, I was told that a great enlargement of the works was probable, as the president of the Alabama Railway Equipment Organization had visited Anniston with some of the heavier capitalists of the company to determine whether it was, as had been suggested, a fitting site for their shops. It was also said that if they came to Anniston they would increase their capital to \$1,000,000 and take the shops and land appurtenant thereto, together with the machinery and business of Noble Brothers at an appraised valuation payable in the stock of the company. This point having been favorably determined, it was proposed that, in order to secure beyond a peradventure the sympathy of the Woodstock Iron Company and the people of Anniston, they should be required to make a cash subscription of \$200,000 to the stock of the organization. This proposition, I am advised by a letter

received May 18th, has been accepted as the basis of an agreement which secures the establishment at the earliest practicable day of works for the manufacture of locomotives and the construction and repair of freight and passenger cars, with a million and a half of dollars of paid-up capital, whose operations will require an addition of 1,600 to the skilled workmen of Anniston.

But the forethought which established a cotton factory in the primitive days of Anniston, in order that there might be the means of independent support for the widows and orphans of the place and surrounding country, still characterizes the influences that control her affairs. Along the line of the Talladega valley running more than sixty miles southward to Sylacauga extend the ore lands of the Woodstock and Clifton companies, and the forests which are to furnish fuel with which to work the four furnaces now devoted to charcoal iron, and those that may be constructed when a further output of that character of iron shall be required. Anniston, said her projectors, must not depend for transportation of its ore and coal and manufactures upon influences that might be adverse to her interests; therefore, Messrs. Tyler and Noble, with a few associates, constructed during last year a road through this valley, known as the Anniston and Atlantic road, which was opened to travel on schedule time early in December; and now the Woodstock Iron Company is constructing a road from Anniston to Gadsden and Atalla, to connect with the Cincinnati Southern, and thus give Anniston direct connection with Cincinnati, Chicago, and the entire Northwest. These additions to the facilities afforded by the Georgia Pacific and the East Tennessee, Virginia and Georgia roads establish Anniston as an inevitable railroad centre; and to meet the local wants of the roads

that may compete for her business, plans have been adopted for a capacious union depot to be built near the famous Inn, and to be provided with all the conveniences found in the great stations of New York and Philadelphia. Work on this building will commence as soon as material and workmen can be had, the directors of the Land Company having taken it in charge. In this connection I may properly refer to a striking display of the persistency with which the ideal of General Tyler and Mr. Noble is adhered to, in the fact that an army of men employed by the Land Company are busy grading and laying tracks for a freight and transfer yard on a body of land embracing nearly one hundred acres, in which, without disturbing the quiet of the residence portion of the city, freight trains will be broken up and the cars distributed to the roads by which they are to proceed to their destination. As I sat with Mr. Noble on the broad piazza of his hospitable home, from which we overlooked the city, he spoke of this work, and having reminded me that, though born in England, he passed his childhood and youth and came to manhood in Reading, Pennsylvania, he said: "I can remember the early days of the Reading and Pennsylvania roads. How little forethought their projectors exhibited in failing to provide for the business of the future, and how, in common with all the roads of their day, they have, from this want of forethought and an expenditure of a few thousand dollars at the proper time, been made to pay millions for space for distributing yards for their freight cars and adequate station yards in which to make up their passenger trains, and we have determined that we will now, while land is unoccupied and cheap, before it becomes the business centre of the city, as it will in a few years, dedicate enough to protect the roads that shall enter Anniston

against the exactions made elsewhere by reason of the enormous outlay of money required to procure such yards in the suburbs of a populous city."

During the three months to which I have so frequently referred, a municipal charter was obtained, a government chosen and organized, and plans adopted for a capacious but inexpensive town-hall, to be constructed as soon as a contractor could be found in so busy a place. Do my readers ask what, after fourteen years of such noiseless growth, caused Anniston to blaze forth so suddenly and with such lustre? This sudden development is simply the *dénouement* of the romance of Anniston. It is the natural result of the opening to public view of the apparently unselfish life which, while aiming at the good of others and the welfare of an enlarging posterity, was rewarding the labors of the founders of Anniston with wealth, the extent of which is disclosed to themselves by the eagerness with which men of energy, skill, and experience in practical affairs crowd into this almost unknown community in undoubting faith that prosperity and happiness cannot fail to crown their enterprise where forecast has made such elaborate provision for the future.

The properties in the possession of the few men who constituted the Woodstock Iron Company, the Clifton Company, and the Anniston Land Company had become too large for individual management and too valuable and complex to confide to the administration of executors or administrators. Messrs. Noble and Tyler began to be oppressed by a sense of responsibility, while competent men beset them on all sides with proposals for the purchase of the property of one or another of these companies, or of an interest in all of them. When, on the 7th of December last, I left Anniston, it was in company

with Mr. Noble on his way to New York to consult, as I afterwards learned, the gentlemen who were interested with himself and Mr. Tyler in these immense properties, and to shape a course of action with regard to the future management thereof. The result of this conference between the owners of these estates was a determination to retain the Clifton property, including Ironaton, Jenifer, and the ore, coal, and timber lands that had been acquired in the name of that company, but to capitalize the property of the Woodstock and the Land companies each at three million dollars. Let me not be misunderstood as intimating that the proprietors of these properties were willing to part with their entire interest in them at that price. The valuation of the properties was fixed by parties who hoped to purchase them, and was accepted by the owners as a basis on which they would part with one third of the stock of the Woodstock and one half of that of the Land Company. These conditions were accepted, and on the 22d of January the transfer was made to the newly organized companies, since when the original holders of the property have owned two thirds, or \$2,000,000, of the stock of the Woodstock Iron Company, and one half, or \$1,500,000, of the stock of the Anniston City Land Company. By this operation some of the most substantial and astute business men of Alabama and Georgia became stockholders in and officers of one or both of these companies, and the result has been a noteworthy measure of activity in Anniston. If its 4,500 population of December last shall not be swollen to 15,000 within the current year, it will be by reason of the impossibility of constructing the industrial establishments which are projected, together with homes for those who are to build the works and manage their operations.

As no question touching the title to any part of the vast property disposed of could be raised, and there was not a dollar of indebtedness against it, the date of the transfer could be determined as soon as the terms of the sale had been arranged. The transfer was fixed for the 22d of January. The Land Company was organized by the selection of Col. J. M. McKleroy, of Eufaula, as president and general manager, Mr. Duncan T. Parker, president of the National Bank, as treasurer, and a board of directors, chosen from among the most substantial business men of Georgia and Alabama. The 22d of January would be Saturday, and the Land Company announced that a public sale would begin on the 24th, at which lots, whether improved or unimproved, would be sold as long as there were bidders at prices acceptable to the directors of the company. The sale began in the afternoon of Monday, and was continued on Tuesday, consuming in all five hours and a half, during which period largely more than \$400,000 worth of property was sold, the terms being one fourth cash and the balance within certain periods extending through a year. The charter invests the company with the right to buy land for subdivision and sale, and before the 1st of May it had sold \$700,000 worth of lots, and invested \$100,000 in choice property contiguous to its original purchase.

Most of the lots sold were bought for immediate improvement, and I had the privilege of examining the plans for a number of handsome residences and business blocks which will be constructed as soon as the required material and labor can be obtained. One of the first buildings erected by General Tyler and Mr. Noble was a flouring mill, on a lot at the corner of Noble and Tenth streets, with a frontage of 110 feet on Noble street, and

120 feet on Tenth street. The lot, carrying with it the mill and its machinery, was sold for \$12,000 to Mr. McCoy, of Augusta, Ga., who sold it in April as two lots, each of 55 feet front on Noble street, for \$30,000. The mill was demolished during my stay in Anniston, and the erection of a four-story brick edifice, with stone and terracotta trimmings, had been contracted for. The corner room on the first floor has been leased by a bank, whose business will date from June 1st, and the adjoining room will be occupied by a clothing house known throughout the country side as "The Famous." The other half of the original site will be occupied by three substantial brick stores, and the upper stories of the bank building will be devoted to offices. The fact that so much of the property, whether in that portion of the town seemingly dedicated to residences, or that in which merchants and traders are to congregate, is held for immediate and, in many cases, expensive improvement, is evidence of the good faith of the transfers of property that have taken place, and the faith of capitalists in the future of the city.

The abounding evidence one sees of the rapid progress Anniston is making in wealth, productive power, and population naturally excites the question whether, while thus engaged in the pursuit of material prosperity, those who now administer her affairs adhere to the exalted theories that governed the founders of the city. Have they continued to establish schools, churches, and other means of social elevation and refinement? Do they maintain a colored school of as high a standard as that indicated in General Tyler's letter to Mr. Smith? Do they employ and pay with even hand, more generously than those around them, laborers, whether white or colored? To him who may propound such questions I reply that no

sign of obliviousness to any of those purposes is discernible, and that, after a month's searching observation, I adopt the following language found in a published letter dated December 22, 1881, and declare it to be as true now, in the midst of the whirl and the bustle of Anniston's sudden expansion, as it was in the days of her quiet proprietary life:

"While the management is energetic in the prosecution of their business schemes, they seem to want the profit only to beautify their property, and make those dependent upon them feel that they are at home, and that, while good services are required of each and every employé, his good and his comfort are matters of interest to his employer."

The beautiful building known as the Noble Institute for the education of young ladies is this year to have its counterpart in an institute for young men, and, while appropriating ample funds for the construction of the school building, Mr. Noble has also announced his purpose to erect a dormitory in which students may be comfortably and carefully housed. Opposite to Grace Episcopal Church, of which the Nobles and Tylers are stout adherents, has been erected an adequate portion, for the accommodation of the present congregation, of what, when completed in accordance with the part that has been finished, will be a strikingly beautiful Presbyterian church. The Methodists, the Baptists, the Congregationalists, and other denominations have their churches. There is also a hall known as the Opera House, in which dramatic and social entertainments are held, and in which during my stay fairs and other entertainments, one in aid of a recently organized rifle company, and others in the service of education, were held, in all of which the best people of the place participated.

To the west of the famous Inn stands what, in point of location, is the most striking building in Anniston. It is a beautiful little church, upon a hill of iron ore—the highest ground within the populous limits of the city. The elevated basement wall is of brick. The structure is new; the colors in which the body of the church and its modest but well-proportioned steeple are painted are harmonious and agreeable. The interior of the church has been decorated with excellent taste, and a well-toned piano serves as an admirable substitute for an organ. In the basement are three rooms, which are presided over by a married couple, both of whom are graduates of Talladega College. The west room is a primary school, which I visited, and, while rambling over the hills for exercise, looked into frequently. In the middle room is the grammar school. The walls of this room are almost covered with slate or blackboard, on which exercises prepared by the teachers, or examples wrought by pupils, may constantly be seen. The exercises include the correction of ungrammatical sentences, and, as a printing office is found in the adjoining room to the eastward, specimens of bad proof are posted for correction; and, as at the college from which the teachers came, the pupils print a small weekly paper. Two male and two female pupils are, in succession, taught the art of type-setting. The principals of the school edit the paper, much of the matter for which is written or selected by the pupils. The church is Congregational, and its site crowns the quarter of Anniston known as Liberia, a designation chosen by the early settlers of the quarter. Elsewhere there is a quarter known as Factory Town, the occupants of which are chiefly engaged in the cotton factory, and over beyond the furnaces on elevated ground to the southwest is Glen Addie, a picturesque set-

tlement which contained something more than fifty cottages in December, to which nearly one hundred like buildings have since been added. All these buildings, whether in Liberia, Factory Town, or Glen Addie, are symmetrical, are well-painted, have ground about them for vegetable gardens, in many of which I observed fruit trees, and in almost every one of the spaces around the older buildings such vegetable gardens as I nowhere noticed upon a cotton plantation.

Yes, Anniston is still an ideal industrial centre, and the generous and humane spirit of Daniel Tyler finds practical expression at whatever cost in the daily operations of Samuel Noble and Alfred L. Tyler, who will, I doubt not, strive to infuse his spirit into the life of the Woodstock Iron Company, and the Anniston City Land Company, with which her destiny is inseparably interwoven.

LETTER IV.

SOUTH PITTSBURG — THE ENTREPÔT FOR THE SEQUACHEE AND TRIBUTARY VALLEYS.

THE ELMS, PHILADELPHIA, June 1, 1887.

In perfect confidence that no risk of loss of reputation is thereby incurred, I declare that South Pittsburg, Tennessee, will be a prosperous industrial centre, whose trade in coal, coke, iron, and advanced manufactures produced therefrom, with the lower Mississippi, will vie with that of its prototype, Pittsburg, in my own State, and that it will also be the seat of a great local commerce, as it is the predestined entrepôt for a number of valleys, each of which is remarkable for salubrity, fertility, and the value of its mineral resources.

The town is on the western bank of the Tennessee River, about 130 miles south of Nashville, and 34 miles from Chattanooga, at what is known as the "Great Bend." It is located in a cove formed by a curve in the mountain. The river bounds the plot on the east, and a mountain ranging from 1,000 to 1,400 feet high gives the settlement protection from the sun's summer rays long before they cease to pour upon the plains, and protects it against the harsh winds of winter. Though South Pittsburg has a population of but about 1,500, its brief story narrates many vicissitudes.

I am indebted for the following statement to Mr. James Bowron, a son of the founder of South Pittsburg, who

now fills the position of secretary and treasurer of the Tennessee Coal, Iron, and Railroad Company :

“ In 1873 the attention of several gentlemen intimately connected with the iron trade of the north of England was called to the large possibilities of the American iron trade, and a syndicate was formed representing large wealth and experience. That syndicate bought conditionally a large mass of property in Virginia, where the Hawk’s Nest Colliery is now situated, and sent out inspectors to verify the truth of the vendor’s representations. Those inspectors reported that the coal was as stated, but that there was no iron there, and the whole project went to pieces. There was plenty of good ore within reach, but the vendors had misrepresented the thing once, and destroyed the confidence of the buyers.

“ Several of the gentlemen, however, continued to look into the subject, as their attention had been favorably attracted to it. The result of their inquiries and negotiations was the conditional purchase in 1873 of a large property at Etowah, Georgia ; and the previous experience of sending inspectors to examine was this time varied by the report from them that the property contained the iron represented, but not the coal.

“ At this time Mr. James Bowron was advised to come abroad for the benefit of his health, and his associates in the previous negotiations delegated to him powers to act for them on the spot, and buy some lands that embraced both coal and iron in reasonable contiguity.

“ He came to the United States, and, before taking any positive action, visited nearly every State in the Union, and spent two years making a full examination. The final result of his labors was the purchase of a considerable body of coking coal lands on the Cumberland Mountain, with red ore lands opposite, at what is now Inman, with a vast body of brown ore land in East Tennessee, suitable for the operation of charcoal furnaces.

“ The site was chosen at South Pittsburg, in reliance on the opening of the Muscle Shoals, and the completion of the Memphis and Charleston Railroad to Chattanooga. Unfortunately for the success of the enterprise, Mr. Bowron died suddenly in 1877, before the works had commenced operations, or in some cases had advanced far towards completion. His death was followed in 1878 by that of the president of the company, Mr. Whitwell, the well-known metallurgist and inventor, who was killed by an explosion in his works just at the time that negotiations for the property of the Tennessee Coal and Railroad Company, passing under the control of the English company, were approaching a head. The deaths of these two heads of the enterprise were followed closely by those of Mr. Pike, of Cork, a Quaker banker, the largest stockholder, and Mr. Jos. Cliffe, the eminent fire-brick manufacturer, one of the leading spirits also.

“ After the loss of so many of their most prominent colleagues the remaining number of the English board lacked courage to carry out the needful expenditure to finish the original plant, and willingly embraced the opportunity afforded them to consolidate with the Tennessee Coal, Iron, and Railroad Company in 1882.”

Had the English company, as I shall speak of the founders of the place, been spared, there would, I am confident, now be twelve or fifteen thousand prosperous people in South Pittsburg, and a large diversity of employment open to new-comers. Proofs of the forecast and liberality of these gentlemen are everywhere apparent. The two furnaces which stand just beyond the northern boundary of the town site embody every improvement that was available at the time of their construction, and the iron they produce enjoys a national reputation for fluidity and other qualities required for casting the finest and most sharply-cut designs. Contemporaneously with

the construction of the furnaces a town plan was adopted, water-works established, streets opened, along several of which capacious water-pipes were laid, and, when the work of grading had been completed, curb was set and arrangements made for the macadamization of the road-bed. These testimonials to their faith in the future of South Pittsburg, and to the fitness of the gentlemen composing the company to provide a growing and enterprising community with the means of comfort, health, and industrial prosperity, are everywhere apparent.

But, since the consolidation of that company with the Tennessee Coal, Iron, and Railroad Company, little care has been bestowed upon the town of South Pittsburg. "As might be expected, every thing urbane went to decay, and the once sprightly embryo city faded into a dingy village of Sleepy Hollow." The streets were not macadamized; those running from west to east have been washed into deep gulleys, and in many places the curb-stones that had been carefully set have fallen into the road-bed; and the town site, as I first saw it in November last, indicated continuing neglect and dilapidation rather than progress toward a notable future. This condition of affairs, when referred to, was ascribed to the fact that "the Tennessee company were iron-makers exclusively, and paid little attention to the town of South Pittsburg, expending practically nothing for its improvement." But in 1886 the town site was purchased from the Tennessee company by Mr. William M. Duncan, a banker of Nashville, and in the autumn of that year the South Pittsburg City Company was organized and bought the town site, including 3,000 acres, together with a contiguous tract of 700 acres from Dr. Bostick, "and began to reorganize the town." In this work, contrasting the achievements that are visible with

the career of Anniston, Chattanooga, and Birmingham, with which cities South Pittsburg must take rank, it cannot be said their efforts have been signally successful. Indeed, their results are scarcely perceptible, except in the erection of the very pretty and well managed Inn with its 38 chambers, which was hastened to completion in order to accommodate the throng of visitors who were expected to attend the sale of town lots appointed for the 10th of May. The streets have not been repaired or macadamized. Visible breaks mark the curb line on both sides of every street. The number of homes for working people that had been commenced on the 13th of May, when I left, was plainly inadequate to the demand for such buildings that will disclose itself from day to day as the great industrial works, which are nearly completed, employ workmen and start their machinery. In my judgment, they do not use too harsh or significant a phrase who say the supply of such houses is shamefully and mysteriously inadequate, especially as a hundred of them would be not only a convenience to the heads of the establishments whose success will build up the town, and a means of comfort and health to their employés, but must have been a source of profit to the company upon whose lands they ought to have been built. That the management of so important a financial operation as the development of an admirably located town site should have been confided to an agent, who could fail to perceive that to improve vacant lots for sale or rent at highly remunerative rates of profit would diminish taxes, increase income, and enhance the general value of the town by promoting the comfort of its newly arriving people, is a marvel; and in my judgment this inexplicable mismanagement justifies the complaints to which I was compelled to listen, during a stay of about

ten days, from almost every man who had recently settled in South Pittsburg.

"The City Pamphlet," with its "eleven full-page illustrations, twenty-one pages of descriptive matter," and "exquisitely engraved cover," which had been prodigally distributed, could not be accepted by settlers as an offset to these and other deficiencies, such as the total want of schools, street lamps, and fire apparatus. Indeed, this proposed substitute for the means of common-school instruction, dwelling-houses, light, and protection from conflagration was much derided in my hearing, as it included engravings of buildings which were yet invisible, and allusions to such imaginary places as "a cottage-bedecked hill-side," etc.; and, as I learned from parties who had come a great distance for the purpose of effecting a settlement in a milder climate than that in which they now live, its exaggerations filled strangers with doubt, and drove some of them away in disgust. In support of this statement I refer to a brief personal interview with two gentlemen from Michigan, who arrived at the Inn in order to attend the sale, at which they expected to make considerable purchases. The train that was to carry them away had not yet arrived. The station was near the door of the Inn, in front of which they sat. One of them held a copy of "The Pamphlet," which he said had been widely circulated in their section of the country. On the "exquisitely engraved cover" appeared in large fancy type the words, "South Pittsburg, Tennessee," and views of the front elevation of "The Bank," of which the first story was in progress, and "Morton's Block," for which ground was yet to be broken. It purported to give "a brief sketch of the town's location, history, changes of ownership, facilities for manufacturing, resources of the district,

attractive as the centre of the New South, climate, weather, temperance, schools, churches, hotels, bank, etc., etc."

I was attracted to their conversation by hearing, as I could not help doing, that the point under discussion was whether the author of the pamphlet believed the American people to be fools, or to be so blind as to be unable to detect the absence of the attractions it purported to describe. Feeling that I might do them a kindness, I took the liberty of suggesting that, though it could not be denied that the first page of the pamphlet bore a striking resemblance to a circus bill announcing the "coming of the greatest show on earth," its exaggerations ought not to prejudice them against a place which enjoyed so many real advantages that no mistakes of mere administration could long retard its very profitable development. The response to my suggestion was a query as to where evidence could be found of the truth of my assertion. I pointed them to Sequachee Valley, with its agricultural lands, the fertility of which could not be exceeded in either their State or my own, and to the fact that it was inexhaustibly rich in excellent coking coal and valuable varieties of iron ore, the character of which was drawing together establishments such as they saw in process of construction along the line of the railroad. My labor of love was, however, ineffectual. My assurances did not countervail the author's exaggerations, and I was met with the cynical suggestion that as the things advertised, which they could have seen had they existed, were not there, how could I expect them to believe that those which they could not investigate were where and as I said they might be found. "No," said one of them, "deluded by this pamphlet we came here with the purpose of set-

ting, but we are going to follow the example of Mr. Bowron, the founder of the settlement, who, this pamphlet tells us, rejected properties in Virginia and Georgia because they were not as they had been advertised." The whistle of the coming train was heard, and the disgusted adventurers departed.

These unfortunate facts are alluded to because, having undertaken to speak on the subject, I accept it as a duty to assure all who may read these letters that the agricultural and mineral resources of South Pittsburg are so great, and her location so admirable, that no such mistakes as have been permitted to occur since the organization of the City Company can permanently impair the prospects even of that company, or do more than inconvenience for a brief time parties who may seek the advantage of cheap coking coal and iron of the highest quality, especially for foundry purposes, at a natural seat of commercial distribution.

My faith in the prosperous future of South Pittsburg rests solidly on my knowledge of the abounding supplies of materials for widely diversified manufactures, for which she must be the outlet, whether they are to be borne to market by railroad or river. The productions of the Sequachee and its tributary valleys must all contribute to the growth of South Pittsburg. Nature has given her a monopoly of their trade, and in doing so has invited men of enterprise to convert the materials in which these valleys abound at this point, where it may be done more cheaply than at places farther from coal, coke, ore of iron and other metals, and the timber and rich agricultural productions in the midst of which she is located. Let me, therefore, invoke competent authority to tell my readers where and what the Sequachee Valley is. In May,

1885, as I find by the transactions of the American Institute of Mining Engineers, Mr. William M. Bowron read to the members of the institute a paper, in which he said :

“The Sequachee Valley includes portions of the counties of Marion, Sequachee, Bledsoe, and Cumberland. It extends in a general direction parallel with the great valley of East Tennessee, some 75 miles northward from the Alabama State line. It is separated from the valley of East Tennessee by a mountain arm about a dozen miles wide, known as Walden's Ridge.”

Mr. Bowron's paper was prepared for the members of a scientific institute, and abounds in technical phraseology. While therefore testifying my appreciation of his service, in enabling me to state the exact location of the valley, I will submit my views in more popular phraseology. Let me say then, the Sequachee Valley is more than 70 miles long, and of an average width of 4 miles. Its supporting walls are Walden's Ridge and the Cumberland Mountains. Along Walden's Ridge to the east are almost continuous deposits of iron ore, and in the mountains on the west deposits of coking coal of superior quality extend throughout the length of the valley. The supply of ore and fuel known to exist in these walls may be said to be inexhaustible. The valley is underlaid with limestone, and is of abounding fertility. Of its lower part I speak from personal observation.

The shire town of Marion County is Jasper, something more than six miles from South Pittsburg. On our return trip to Jasper over the county road we crossed the swampy lands at the confluence of Battle Creek with the Sequachee. I have stood at the base of the great trees in the forests

of Washington Territory and on the shores of Puget Sound, almost awe-struck at their size, including height and diameter, and their symmetry, and yet trees equal to the finest of them are seen on these swampy lands tributary to South Pittsburg, and not five miles from excellent sites for furniture factories and other wood-working establishments which must some day contribute to her prosperity. Here I found a written chapter of the story of the war, for cut in the bark of these great trees are the initials, and in some instances the full name, with the regiment and company, of the Union soldiers who were on picket duty at the confluence of these sometimes turbulent Tennessee creeks.

Much of the land of both these valleys near their confluence is highly cultivated, and from the modern implements seen in the fields or about the out-houses, and the extent of these buildings, must, I think, be in the hands of Northern farmers, or of men who have studied Northern methods of farming, and know the value of deep ploughing and of barn-yard manure and clover as fertilizers. Much of the upland or hill-sides of the part of the Sequachee Valley I visited is under careful cultivation, and abundantly rewards the labor bestowed upon it. Victoria is nine miles beyond Jasper, and Inman six miles beyond Victoria, which is in the west wall of the valley, and is a coking station. Inman, on the other hand, is in Walden's Ridge, the eastern wall, and is the source from which ore for the South Pittsburg and some other furnaces is taken. These points are reached by a road owned by the Tennessee Coal, Iron, and Railroad Company, but which, having been leased by the Nashville, Chattanooga, and St. Louis Company, is extended as occasion requires. The scenery along this road is beautifully picturesque. The

coal of the valleys it accommodates makes good coke, and the ore includes beds of fossiliferous and red and brown hematite or limonite. The coal, the ore, and the limestone of these valleys, with the timber which exists in great variety and magnificent profusion along Walden's Ridge and Cumberland Mountain would, were they South Pittsburg's sole supply of raw materials for manufacture, insure her a commanding position; but the valleys of Battle Creek and the Big and Little Sequachee are, I am assured by those in whose statements I have confidence, almost as rich in minerals, timber, and agricultural elements as the great valley itself. It is the perception of the inexhaustible value of these resources that has induced a number of experienced men to abandon established locations and stake their fortunes in the erection of more extensive works at South Pittsburg. Among the establishments to which I allude are the Perry Stove Company, the buildings of which cover about six of the ten acres acquired by the company along the railroad, and in which the requisite machinery is now being erected. As Mr. John S. Perry, the projector of this company, has for more than thirty years been a manufacturer of stoves at Albany and Sing Sing, I need hardly add that this machinery is of the best quality and of the most recent conception. As an illustration of the fact that there is a New South, a truth which is sometimes disputed by those who too profoundly revere the memories of the Old South, and as also illustrative of the difficulties business men who go there must encounter if they require skilled hands, and cannot induce trained workmen to accompany them to a new and distant home, I insert at length the following advertisement, together with a statement of the means by which its circulation was accomplished.

500 MEN WANTED!

STOP AND READ.

THE PERRY STOVE MANUFACTURING Co.,

SOUTH PITTSBURG, TENN.,

Will open their

MAMMOTH STOVE FOUNDRY

during the month of June, giving an opportunity to 500 young and middle-aged men and boys from the farm, mill, and shop to learn the trade of

MOULDERS, MOUNTERS, POLISHERS, NICKEL PLATERS, CARPENTERS, PATTERN FINISHERS, ETC., ETC.

They have engaged 50 of the best mechanics to teach those who want to learn. Early application should be made at the office of the company to secure the opportunity of your life. Liberal wages paid while learning the trade.

ALL WAGES PAID EVERY SATURDAY NIGHT.

CHAS. W. RICHARDS, Manager.

There is no district or city in the South from which the number of skilled workmen needed in the departments named in this advertisement could be drawn; and, as mechanics who are well employed and contented with their surroundings could hardly be induced by any ordinary temptation to go so far from home as pioneers, unskilled workmen must be employed and trained. Mr. Richards informed me that, by offering special inducements, he had succeeded in engaging fifty competent men, who were well known to him, as foremen and teachers. The question that now troubled him was how to get the raw hands for them to teach. There are, in this part of Tennessee, no towns upon the walls of which placards can

be posted, nor do any advertising sheets, even in the form of weekly papers, circulate among the mountain woodsmen and old-time poor white cotton-growers, from which classes his recruits must be expected. To secure the circulation of his advertisement he took advantage of the fact that a circus was making its annual tour of the Sequachee Valley and surrounding country, and employed a man to meet it at Jasper, accompany it for several days, and distribute handbills containing the advertisement in each town to which it should go. The device was a success, for before leaving South Pittsburg I saw a number of young men call in person, and was permitted to look over a bundle of letters from others, pleading for the opportunity to escape from their past unremunerative employment in the service of King Cotton and become skilled hands at stove-making, on the terms proposed by the Perry Company. It is only in a new country that such an advertisement could be required, and that such promises as it holds out would be regarded as a favor by thousands of people. I therefore reiterate the assertion that I introduce this advertisement in proof of the fact that there is a New South, whose poor people are, thanks to a diversification of employments, to be more fortunate, and to enjoy more of the comforts and luxuries of life than those of their class ever enjoyed during the life of the Old South, with its single industry.

The Perry Stove Works have long had a large trade with the South, for which they have for some years derived much of their metal from Tennessee and Alabama, a consequence of which has been that their Southern customers have paid freight on pig iron from one of these States to Sing Sing or Albany, and on stoves from Albany or Sing Sing to the Southern city in which they might be

marketed. There will, therefore, probably be a cheapening of stoves to the Southern people, and an increase of profit to the Perry Company by the establishment of this Southern branch of the old-established house.

A short distance from these works, on the opposite side of the railroads, a site has been selected for an immense planing-mill, the construction of which is proceeding under the superintendence of its experienced proprietor, Mr. C. J. Duncan, who has made the new city his home by establishing his family in rented quarters until, with due deliberation, they can select a site on which to erect a permanent home on their own plan. To the north of this lot are the large buildings of the South Pittsburg Pipe Works, which are drawing rapidly to completion. Their capacity will be about 50,000 tons of pipe per annum. Beyond this, again, are the foundations on which are rising the framework of the large buildings of the Sequachee Hoe and Tool Company. This establishment is an emigrant from Iron-ton, O., the energetic proprietor of which, having enjoyed the advantages of the Friends' College at Swarthmore, near Philadelphia, the Law School at Harvard, and finally gone to the bar from the office of the ex-attorney-general of the United States, Wayne McVeagh, has cast his lot with South Pittsburg, as has another young member of the Philadelphia bar, who was recently assistant city-solicitor, my son and namesake, who has identified himself with the Perry Company as stockholder, director, and secretary. The South Pittsburg Brick and Terra-Cotta Company were just completing their first kiln when I left Tennessee. The experienced manager of the concern is confident that he can turn out first-class pressed bricks, and soon advance to the production of general supplies of terra-cotta work. This list embraces only works the location of which has

been determined upon since my visit in November last. I then observed a saw-mill in operation, and heard of a foundry for the casting and manufacture of sad-irons, of which ten or twelve tons are turned out weekly. The machinery of this establishment, which I inspected during my recent visit, is ingenious and interesting. The increased demand for iron by the establishments to which I have alluded will consume the production of the two furnaces now in operation and demand the completion of the third one, the construction of which has been promised for months; and should the place grow as rapidly as its resources and location justify us in believing it will, the gentlemen connected with the Memphis and Charleston road, who are said to have selected a site for two furnaces near their road, cannot push them to completion too soon, if the Sequachee Valley is to furnish the shops of South Pittsburg an adequate supply of iron for conversion into the diversified utilities they are fitted to manufacture.

The summit of Lookout Mountain has been made the seat of a luxurious summer settlement. The ascent is made in a few minutes by an "incline," the car on which is propelled by a stationary engine. So attractive has the summit been found by parties from a distance as a place of residence, as well as by the "can't-get-away" business men of Chattanooga during the heated term, that a "zig-zag," after the fashion of the famous Pennsylvania Switch-back road, is projected, and a carriage road has been made by which the mountain is ascended from its southern point. The new settlers of South Pittsburg, though yet but few, are contemplating an "incline" to Lodge's Point, at the summit of the mountain, in the shelter of whose early evening shadow the little town is growing, and several parties have meanwhile contracted for inex-

pensive summer cabins, which may be reached by bridle paths in about thirty minutes. The scene from this point, or, indeed, from any part of the elevated plateau, which is broad, is commanding and beautiful. Enough work was done by the English company in the way of planting fruit-trees and flowers within the limit of the town site to leave enduring proof that the location is one admirably adapted to the growth of peaches, pears, apples, apricots, cherries, and other orchard fruits; and that, as Chicago and other Northern cities draw early strawberries from the western slope of Missionary Ridge, near Chattanooga, and grapes from the eastern slope of the ridge, so may the foot-hills and sloping ascents of Lodge's Point be made valuable by the skill of a few Northern market gardeners, who would find their fortunes in settling on the spot before it is appropriated as town lots.

The sale of city property, which took place on the 10th and 11th of May, in accordance with the announcement of the too glowing pamphlet to which I have referred, was attended by but little more than a hundred visitors. It was, beyond all doubt, a bona-fide sale. Many of the purchasers were eager, and had brought with them plans for the improvement of the land they intended to purchase. Eighty dollars a front foot was paid for a number of lots; and I do not remember that any lot in the business portion of the town sold for less than fifty dollars a front foot. A young gentleman who had recently settled in South Pittsburg was the hero of an incident which afforded considerable amusement to his messmates, of whom I happened to be one. He had not studied the method of calculating the purchase-money for land in his new home, and finding a lot exposed for sale upon which were two dilapidated old frame buildings—one on the front street,

and the other an outhouse near the rear, which the auctioneer frankly said added little, if any, to the value of the ground (it was the ground that had attracted my young friend),—in response to the auctioneer's cry, "Fifty-nine is bid ; shall I have sixty?" nodded his head apparently with great deliberation. The bid bought the lot, and then it was that the purchaser discovered that sixty dollars was not the purchase-money for the lot, but the one-fiftieth thereof. As his bid was sixty dollars per front foot, the total amount was beyond his immediately available means, and he was terrified by the result of his temerity. He turned quickly to friends to know how he could relieve himself from the consequences of his ill-considered act ; but before he could reach those who might have relieved him from his bargain, he was cheered by applications from eager competitors for the two buildings at rates of rent more than equivalent to the interest on the whole purchase-money of his \$3,000 lot, with stipulations that the tenants would make needed repairs, so that, had he not announced his mistake, he would have received the congratulations of his friends upon his courage and the excellence of his judgment. I tell this story to illustrate the readiness with which any tenement that will give shelter to a family or cover to people employed in hand labor may be rented ; and as a demonstration to the managers of the South Pittsburg Land Company of the loss they are sustaining by having failed to erect a hundred or more neat cottages for laborers. That the prices paid for the \$80,000 worth of land that was bought were not exaggerated, proof was given in the fact that, after the close of the first day's sale, the two lots opposite the bank building, not yet half a story high, and the handsome stores that Mr. Morton intended to build, after the cellars should

be dug, and is, in fact, now building, were purchased at private sale, by a shrewd and experienced business man, at the rate of \$100 per front foot. But while giving publicity to this significant incident, I feel bound to say that, in view of existing conditions, I would not have advised the investment. The natural advantages of South Pittsburg are greater than I have attempted to show, but her progress is likely to be retarded by mismanagement on the part of the Land Company. In the absence of any local government, discontent prevails among the recent settlers who are erecting buildings and setting up machinery, and lawlessness will be provoked when hundreds of wage-earners, for whom no adequate accommodations will have been provided, shall be suddenly gathered together. The conditions are such as frequently invoke application of lynch law in improvised towns in the Far West. There is not a school in the place. There is what is called a school-house ; but it is a dangerously dilapidated building, in an out-of-the-way place, and is unapproachable in wet weather by children. Two lamps in front of the Inn constitute the entire means of lighting the streets. No adequate or steady supply of water has been provided, and no apparatus for the extinguishment of fires exist ; in short, the demand for local home rule is as urgent in South Pittsburg as it is in Ireland. Investments in town lots may be made with a fair prospect of ultimate profit ; but, for the present, further settlement should not be made by parents of children who are within the age for common school instruction ; nor by those who would prefer to find their way about the broken streets of an embryo city, in which no government exists, by the aid of gas or electric light, to exposing themselves to bludgeon or bullet by carrying an illuminated lantern through the darkness of moonless

nights ; nor by those the safety of whose estate requires them to insure buildings, machinery, and stock against conflagration, or who may require a full and steady supply of water for domestic or manufacturing purposes. These warnings refer to grave, but, happily, not insurmountable, obstacles to what would be the magical development of this most favored locality. Sixty days will suffice to remove them all and justify settlement by every condition of people, from all parts of the country. What is required is the organization of a municipal government under a charter that, in addition to authorizing a local magistracy and police, will permit the making of a loan of limited amount, and applicable exclusively to certain defined purposes. Gentlemen every way qualified to administer such a government can readily be found among those who are identified with the great industrial establishments of the place. At the risk of seeming to act invidiously by the possible omission of the names of gentlemen of eminent fitness for such duties, I beg leave to thus publicly suggest the following names to the managers of the Land Company :

George E. Downing, president of the pipe works, formerly of Cleveland, O., and for the five years last past an active business man of Chattanooga.

Jesse R. Norton, president of the hoe and tool company, a graduate of the Law School of Harvard University, and the office of Hon. Wayne McVeagh, who is transferring an established business from Ironton, Ohio.

Joseph Lodge, superintendent of the furnaces of the Tennessee Coal, Iron, and Railroad Company, a native of Delaware County, Pa., who has lived in South Pittsburgh ten years.

Charles W. Richards, general manager of the stove

works, which he managed for ten years in Sing Sing, N. Y.

C. J. Morton, proprietor of Morton's Block, builder and contractor, from Paducah, Ky.

Wm. D. Kelley, Jr., secretary and director of the stove company, who was successful as assistant city-solicitor of Philadelphia.

R. M. Payne manages the Marion Hotel, keeps a well-supplied country store, and is one of the oldest and most solid residents of South Pittsburg.

Duncan, Hughes, and Hillman, owners and managers of the large saw- and planing-mill now nearly completed.

F. D. Arthur, a finely educated lawyer from Sing Sing, N. Y., with a growing practice.

Dr. William R. Townsend, a long-established and successful physician, originally from New York.

D. H. Lawton, proprietor of the City Inn, from Ironton, O., and

William M. Bowron, chemist and expert, who, with his father, was one of the first settlers of South Pittsburg.

Such men, the representatives of such interests as these, with their hundreds of employés and their families, cannot long be held in subjection to the caprice of an irresponsible agent of non-resident proprietors; and I predict with undoubting confidence that when this wretched mismanagement shall be abandoned, or have been overthrown, South Pittsburg will forthwith take a prominent place among the remarkable industrial and commercial centres of the New South. It must be so. An unfailing supply of coal, coke, ore, and limestone is at her threshold, and her incipient industries are sufficiently diversified to attract large numbers of skilled artisans.

Three railroads, the Nashville and Chattanooga, the

Memphis and Charleston, and the East Tennessee, Virginia, and Georgia, will compete for the carrying trade these industries will create. Nor can railroad companies establish a monopoly of this trade. The Tennessee is a perennial stream; neither drought nor ice has ever obstructed her surface or impeded or diminished the volume she pours into the sea. The Muscle Shoals alone have impaired her commercial power and value. Under the old-time Southern doctrine that the national government had not the right to improve our obstructed rivers and harbors, the Tennessee could never have become a thoroughfare for national and international commerce. But better doctrines now prevail, and the government engineers, who for many years have been engaged in the removal of this obstruction, have announced that, notwithstanding the fact that their work will not be completed this year, the Christmas present they will make their countrymen will be the announcement that steamers towing the longest practicable line of barges from South Pittsburg and above that point may have free and safe course to the ocean. With the handling of the productions of the Sequachee and the tributary valleys, and the commodities her own manifold industries will produce, the mountain-sheltered city of South Pittsburg will not be without some of the commercial facilities which seem to belong only to cities near to the sea.

POSTSCRIPT, Oct. 1, 1887.—To indite and send to the *Record* the foregoing strictures upon the deplorable mismanagement of their great estate by the South Pittsburg City Company were not pleasant duties, for I count a number of the principal stockholders among my valued friends. But to have omitted any of these criticisms would have been to impair my claim to the character of a veracious chronicler of conditions and events. To the suggestions of injustice elicited by the publication of the letter I made no response, and after four months' consideration of my remarks, and the

faithful reading of the successive numbers of the *South Pittsburg Standard*, a sprightly and vigorous weekly paper, which permits no private enterprise or public improvement to be initiated without bringing it to the attention of its readers, and frequent interchanges of letters with active business men of the place, I am constrained to say that the rapid and substantial growth of the town is taking place in spite of the indifference of the City Company. This growth involves the addition in less than four months of largely more than one hundred per cent. to the population, the construction on Cedar and Elm avenues of a surprising number of single stores, and blocks of stores and offices, most of which are substantial and capacious brick buildings. One of the separate buildings is to be occupied by a savings-bank and trust company. The pipe works and stove works, though the manager of neither of them has been able to obtain workmen enough to put the fires and machinery in any thing like full operation, are scenes of active industry such as had never been witnessed in Marion County. Major Downing is producing fifteen tons of pipe per day, and the stove works more than three tons of stoves. I have direct assurances from each of these establishments that experience has already demonstrated the superior adaptation of the local iron and coke to their uses. But these achievements have not been promoted by the City Company. They are the work of settlers,—of men who, while developing the resources of the valley, and concentrating an energetic population, are taking the requisite preliminary steps to secure a charter and establish at an early day a municipal government, under which they may enjoy good order and security.

LETTER V.

THE MINERAL RESOURCES OF THE SOUTH—THE RELATION OF
HER IRON INDUSTRY TO THAT OF THE COUNTRY AT LARGE.

THE ELMS, PHILADELPHIA, July 1, 1887.

This letter will owe its direct application to, and its apt illustration of, the industrial and social condition of the mineral-bearing States of the South to the labor of Mr. James M. Swank, general manager of the American Iron and Steel Association, whose recent annual report is a more masterly grouping, analysis, and summing up of complex details and vast results than I can remember to have seen in any similar paper. To his intelligent and systematic labor my readers will owe the instruction they may derive from the several tabulated statements it will present. In the course of the preliminary remarks to this report the following paragraph appears :

“ An interesting and most gratifying feature of the iron trade of 1886 was the marked advance which was made by the Southern States in the development of their resources for the manufacture of iron and steel. Many new manufacturing enterprises, based upon ample capital and judiciously located, were undertaken in that year, while other works already established were pushed to their utmost capacity, and in several instances were enlarged and otherwise improved. The production of iron in these States in 1886 was much larger than in any preceding year. It will be larger in 1887 than in 1886, as few of the new works which were undertaken in 1886 were in active

operation in that year ; most of them, indeed, will not be in operation until the latter part of this year or the early part of next year. Iron-ore mines, coal mines, and limestone quarries are being opened, railroad connections are being made, and contributory enterprises are being established wherever new iron-works have been undertaken. The growth in the South of its iron industry has also imparted a spirit of much-needed enterprise to many other branches of industry in that section which we need not particularize. Altogether the South has experienced in 1886 a new birth ; even its own journals and public men now speak of it as the New South. It gives to-day abundant promise of achieving in the near future those beneficent industrial results which have made the North so rich, so prosperous, and so aggressive. The North welcomes its rivalry in every line of industrial endeavor, as it well knows that the South greatly needs the prosperity which diversified industries only can bring."

This greeting from the iron industry of the North to a promising competitor will be misapprehended by many of both sections of the country. I have heard Southern enthusiasts predict the speedy transfer to the South of the skill and capital now engaged in producing iron and steel in Pennsylvania and Ohio, and have also heard Northern pessimists query as to the time when the cheaper iron of the New South will begin to close the mines and furnaces of these great iron-producing States. Were I willing to impose upon any of my readers, I could produce partial exhibits which, considered by themselves, would confirm the hopes of the enthusiast or the most dismal apprehensions of the pessimist. But I visited the South in order to ascertain and report the true condition of affairs, and therefore convey my thanks to Mr. Swank for the labor and skill by which he has enabled me to present a sum-

mary of her achievements, and an appreciable indication of the vastness of the field she must conquer before she may aspire to supremacy in the American iron trade.

The production of an adequate supply of assorted qualities of pig iron, with which to supply the demands of the home market, is a preliminary to equality among the producers of our vast and multiform manufactures of iron and steel. To most dwellers in the vicinity of "booming" towns, the conquering progress of the South toward this consummation will be satisfactorily established by the announcement that her production of pig iron during last year was 61,780 net tons in excess of the average annual production of the entire country during the ten years 1854 to 1863 inclusive. This is certainly a very striking fact. But it is, we shall see, more valuable as proof of possible capacity than of comparative achievement. It was in 1854 that the American Iron and Steel Association began to gather and preserve the statistics of the trade. Its record of the production of pig iron for the ten years referred to is as follows:

Years.	Net tons.
1854.....	736,218
1855.....	784,178
1856.....	883,137
1857.....	798,157
1858.....	705,094
1859.....	840,627
1860.....	919,770
1861.....	731,544
1862.....	787,662
1863.....	947,604

This exhibit shows an annual average production of 813,399 net tons of pig iron, against which the South

shows 875,179 tons as her production in 1886, being an excess of nearly 62,000 tons.

The following table, which exhibits the number of tons of pig iron produced by each of the Southern States during 1886, may prove interesting to many persons :

States.	Net tons, 1886.
Alabama	283,859
Tennessee.....	199,166
Virginia.....	156,250
West Virginia.....	98,618
Kentucky.....	54,844
Georgia.....	46,490
Maryland.....	30,502
Texas	3,250
North Carolina.....	2,200
Total	875,179

Missouri produced 74,523 net tons of pig iron last year ; and it may avert ill-founded criticism upon her omission from this list of Southern States to note the fact that she is not a Southern but is a Western State. She is bounded on the east by Illinois and on the west by Kansas, neither of which has ever been grouped with other than Western States. Under the national compromise of 1821 Missouri became a slave State, but that did not change her geographical position.

But to determine the statistical value of last year's figures we must subject them to comparison with the contemporary production of the country. For instance, our total production of pig iron in 1886 was 6,365,328 net tons, which showed an increase of nearly 700 per cent. upon the annual average of the decade which closed with 1863. Of this immense total Pennsylvania produced 51.7 per cent.,

or more than one half, and Ohio 14.2 per cent., her total being 908,094 tons, or 32,915 more tons than were produced in the entire South.

Mr. Swank says: "It is expected that the production of pig iron in the South in the present year will exceed a million net tons," and General Willard Warner, who has managed the Tecumseh Furnace since just after the close of the war, and whose temperament and tone are conservative, is quoted as authority for an estimate of a million and a half tons. Should General Warner's figures be reached even in 1888 the South will still have to make many more such strides before she will produce enough to supply the demands for finished iron and steel which her new activities have created, or her *pro rata* measured by the extent of her territory or her population. These conclusions will be resisted by the "boomers" of "paper cities"; but if the figures cannot be successfully assailed the conclusions are inevitable.

Nor can the time when the South will produce her own supply of crude iron be predicted. The data upon which to base such a prediction has not been created. Nor, it is proper I should remark in passing, does the event depend, as many believe it does, on the extent, quality, and fortunate juxtaposition of her mineral deposits, the ability and energy of her people, or the amount of capital, experience, and enterprise the fame of her resources may draw to her. These are essential elements of the problem; but when profit may, from any cause, cease to follow the application of capital, energy, experience, and science to the development of her material elements, and their conversion into finished commodities, the new-found prosperity of the South will come to a speedy end. The hope of profit inspires enterprise and impels labor. Even

the curse that declares that our bread shall be earned by the sweat of our face carries with it the promise that he who labors shall not want for bread. He, therefore, is a slave or a fool who toils without the hope of profit. The destruction of the opportunity to realize profit from venture or industry puts an end to enterprise and paralyzes the arm of labor. The revenue policy of the government, which in industrial matters is well-nigh omnipotent, is, therefore, the factor that is to determine whether the new spirit which is animating and enriching the people of the mining and manufacturing States of the South, and enabling them to compete with the most prosperous and long-established of their Northern competitors, is to live and expand till it shall have quickened every Southern State, and created profitable uses for all their resources by organizing remunerative employments for all their people, or is to vanish as a bright but fleeting vision.

This is not the speculative conclusion of a mere dialectician; it is the often-repeated lesson of history, which is said to be philosophy teaching by example. It has just been shown by official figures that the infant iron industries of the South produced more crude iron last year than the whole country had been able to average during a decade which embraced the last nine years of our existence under "tariffs for revenue only," and the first year in which the influence of the protective tariff of 1861 was felt. During the last nine years of the dominance of Robert J. Walker's "revenue reform" policy, and of a "tariff for revenue only," the average annual production of pig iron was but 798,488 tons, and made no appreciable increase. In 1863, when the inspiring influence of the protective tariff of 1861 began to be felt, it increased to 947,604 tons; and last year, under the

benign influence of a quarter of a century of continuous protective duties, the South alone exceeded the greatest productive capacity the nation had ever exhibited under a low tariff, and the country's annual average of less than 800,000 tons prior to 1863 exceeded 6,000,000 tons in 1886.

These marvellous contrasts should be studied by the people of the mineral-bearing States of the South, to whom they appeal with special significance. But they do not constitute the only admonitory and persuasive utterances history has addressed to them on this subject. Under "tariffs for revenue only" and such "tariff revision" as was effected by Mr. Polk and his Secretary of the Treasury, Robert J. Walker, for the repetition of which so many Southern editors, orators, and statesmen are laboring with persistent energy, the American people found it impossible to establish the manufacture of steel. They proved time and again, and each time at the cost of hundreds of thousands of dollars, that they could make every grade of steel known to commerce. But under a revenue tariff they were not only prevented from selling their steel at a profit, but were reduced to bankruptcy by foreign conspirators, who combined to supply our market with steel below the price at which we could possibly produce it, and often at less than it cost themselves. The destruction of domestic competition was the means by which the conspirators perpetuated their monopoly of our market, and made the American people reimburse the outlay they had made during their struggle for our commercial enslavement. Thus it was that steel always cost our people more under free trade than it does under protection. A protective tariff has not only permitted domestic production, but has promoted domestic compe-

tion, and thus reduced the price demanded for steel by the foreigners who so long monopolized our markets, and made us pay them what profit they pleased to demand. But how is it now, after thirty years of steady protection? History answers this question with point and emphasis. From page 35 of Mr. Swank's report I obtain the figures which tell the story of the annual march of American enterprise and labor toward the conquest of the American market for steel. Here they are:

The following table gives in net tons the production in the United States of all kinds of steel from 1868 to 1886:

Years.	NET TONS OF 2,000 POUNDS.				
	Bessemer steel ingots.	Open hearth steel ingots.	Crucible st'l ingots.	All other steel.	Total.
1868 . . .	8,500	—	21,500		30,000
1869 . . .	12,000	1,000	23,000		36,000
1870 . . .	42,000	1,500	35,000		78,500
1871 . . .	45,000	2,000	37,000		84,000
1872 . . .	120,108	3,000	29,260	7,740	160,108
1873 . . .	170,652	3,500	34,786	13,714	222,652
1874 . . .	191,933	7,000	36,328	6,353	241,614
1875 . . .	375,517	9,050	39,401	12,607	436,575
1876 . . .	525,996	21,490	39,382	10,306	597,174
1877 . . .	560,587	25,031	40,430	11,924	637,972
1878 . . .	732,226	36,126	42,906	8,556	819,814
1879 . . .	928,972	56,290	56,780	5,464	1,047,506
1880 . . .	1,203,173	112,953	72,424	8,465	1,397,015
1881 . . .	1,539,157	146,946	89,762	3,047	1,778,912
1882 . . .	1,696,450	160,542	85,089	3,014	1,945,095
1883 . . .	1,654,627	133,679	80,455	5,598	1,874,359
1884 . . .	1,540,595	131,617	59,662	5,111	1,736,985
1885 . . .	1,701,762	149,381	64,511	1,696	1,917,350
1886 . . .	2,541,493	245,250	80,609	2,651	2,870,003

Our total production in 1886 was not only the largest in our history, but it was the largest annual production in

the history of any country. It is one of the most instructive facts of American history that our magnificent steel industry has been wholly created within the last thirty years.

It is a noteworthy fact that the period in which these magnificent illustrations of the creative power of protective tariffs have been achieved has been characterized by a continuous decline in the market price of steel in all its various forms.

In the course of a published interview, Mr. Secretary Lamar recently spoke very sadly of the condition and prospects of the agricultural sections of the South—the cotton fields apart from railroads, mining, and manufactures. A wide range of observation enables me to confirm his statement, that in these parts of the South “improvements are not kept up, and there is a general air of poverty, want of thrift, and the allowing of things to go to decay.” In reply to the question “To what cause do you attribute it?” he said: “I don’t know. If I did not know how little influence legislation actually has upon industry, I should say that the tariff was the chief cause.” A fairer-minded man than L. Q. C. Lamar one never meets in intelligent controversy, and this remark shows that in the interview in which it occurred he entered a domain of science with the elements of which he is evidently profoundly ignorant. Contenting myself for the present by inviting his attention to the illustrative statements touching the production of iron and steel in this country, just presented, I promise to recur to the substance of his statement in my next letter, in which I propose to speak of visits to Cedartown, Rome, Talladega and other towns, in the vicinity of which I saw worn-out and moribund cotton fields which had been bought, with

all improvements upon them, at less than \$2 per acre, the atmosphere about which was redolent with the fragrance of blossoms and fruit, the presence of which attested the creative power of man when co-operating with nature, instead of persistently defying her methods and striving to constrain her to obey his preconceived theories. If, meanwhile, my friend Lamar will do me the favor to read Henry C. Carey's volume entitled, "The Slave Trade, Domestic and Foreign," he will, I believe, find himself almost if not altogether persuaded that no other human agency exercises such potent influence upon industry and the rewards of labor as legislation.

But well-nigh omnipotent as is revenue legislation in preventing or promoting the development of the natural resources of a country, and the productive capacity of its people, it cannot control local and temporary influences. No human agency can regulate the weather or avert the effects of drouth, excessive rain, or unseasonable frosts, or prevent the ravages of entomological pests which, after affecting localities, disappear as mysteriously as they came ; nor can legislation enable man to grow tropical plants in a frigid climate, or to make iron or steel without adequate supplies of ore, fuel, and limestone in reasonable proximity to each other, and to the furnace in which they are to be used. Nor will the utmost abundance and closest juxtaposition of ore, fuel, and fluxes in themselves create or sustain a notable iron industry. These vital elements must be supplemented by adequate supplies of human and animal labor, and such agricultural resources as can meet the wants of the iron workers, whether animal or human. Indeed, it is this dependence of manufactures upon neighboring farms for green crops, fruit, eggs, poultry, veal, and lamb, which interests farmers in the widest possible

diversification and localization of manufacturing industries as the only sure means of providing cheap wares and fabrics for themselves and their dependants, and a neighboring market for such of their productions as are perishable, or will not bear distant transportation. I have in mind facts which are within the knowledge of Southern men, and of interest to many of them, which prove that legislation may extirpate profitable industries, and others showing that no measure of protection will compensate for want of judgment in locating, or skill and prudence in managing, establishments involving the employment of capital and labor.

The people of Alabama, Georgia, and Tennessee produce not only iron, but, as all the world knows, are large producers and shippers of cotton, and consequently large consumers of iron cotton ties. While Alabama was but a comparatively small producer of iron, she furnished a very appreciable percentage of the total weight of cotton ties consumed in the country, but now, when she stands forth in the list of iron-producing States, she makes no cotton ties. How is this remarkable change to be accounted for? A protective duty had made their manufacture profitable to ex-Governor Rufus W. Cobb and his associates in the cotton-tie mill at Helena, near the Helena coal mine, on the South and North Alabama Railroad. The business was of advantage to the owners of the coal mine, the ore bed, and the railroad company and their numerous laborers, as well as to the owners of the cotton-tie mill and their laborers; and it was abandoned simply because legislation removed the protective duty without which the production of cotton ties in this country involved loss. To have continued to make ties under the reduced duty would have impoverished the owners of the mill, and their

production was consequently abandoned. Again, the people of the Southern States purchase annually many thousand tons of barbed and other fence wire, for which American mills, prior to 1883, furnished the iron or steel rods of which this wire was made. Now we make no iron wire rods. The privilege of supplying the South with these rods and with cotton ties would have been a boon to the people of the whole section. But her representatives in Congress, with almost perfect unanimity, voted to reduce the duty to a figure which denied profit to American manufacturers, and by this legislation almost extirpated the wire-rod industry also. Of the two articles, cotton ties and wire rods, there were imported during the last fiscal year 164,962 tons, at the invoice price of \$4,229,209. In view of these instances, it can hardly be denied that legislation may prejudice and destroy the opportunities and rewards of enterprise and labor.

But, omnipotent as legislation is within the sphere of human practicabilities, it cannot avert the consequences of such blunders as the erection and equipment of costly furnaces in dependence upon impracticable ore beds or where a supply of available fuel and fluxes cannot be obtained at all times and at reasonable cost. In these respects "boomers" of towns and town lots near which badly located furnaces have been, or "are to be constructed," have not only illustrated the fact that the protective system cannot save them from the consequences of their folly, but have inflicted incalculable damage upon the iron and real-estate interests of Tennessee, Alabama, and Georgia. Indeed, the business of "booming" town lots, by constructing or promising to construct furnaces near to them, has been carried to dangerous excess. Conservative trade journals in the South are outspoken in de-

nunciation of this reckless waste of capital ; and it should be borne in mind that such improvident investments are exceptional, and rather characterize the delirium of land speculation, with which many of the people of the three great iron States are afflicted, than prove that the South is likely to suffer permanently from want of excellent fuel for the production of iron and its advancement to cutlery and surgical instruments.

The pressing need of the iron trade of the South at this time is, however, not the means of increasing her output of crude iron, but an increase of foundries, forges, and factories to consume the increased quantity of iron she will produce from year to year.

Writing to me at Anniston on the 1st of April, Mr. Swank urged me to press this consideration upon the attention of those of the people to whom I might have access. "If," said he, "you should speak on this subject before returning home, you would do the South a kindness by pressing home to it the truth that the more it builds up manufactures to *consume* pig iron, the more Southern pig iron will be needed. The South should be self-sustaining in meeting its wants for iron of all kinds ; but what do we see ? It sends its pig iron largely to the North to be sold, and buys from the North a large part of its stoves, wagons, plows, shovels, and other agricultural implements, which are wholly or largely composed of iron in advanced forms."

I cordially endorse these suggestions ; but whether the increased output of iron in the South comes from increase of forges, foundries, or factories, or shall come chiefly from furnaces for export, it will promote the industrial independence of the nation. The politicians delude the planters and farmers by telling them that our tariff is

prohibitory, and that by securing a monopoly of our market to our own iron workers it enables them to make undue profits, and thereby impoverish their agricultural countrymen. No plausible statement could be wider of the mark than this. The truth is that all England has just been constrained to record the fact that the iron market of free-trade Britain was, during last year, saved from complete paralysis by the demand for her iron and steel from the protected market of the United States; the truth being that our duties are not only not prohibitory, but, in many instances, such as in the cases of cotton ties and wire rods, have not been found heavy enough to protect established concerns in the midst of coal beds, iron mines, and cotton plantations, in the privilege of supplying plantation requirements. The following table, which was prepared by Mr. Swank from statistics furnished by the United States Bureau of Statistics, proves that under our "prohibitory" tariff we imported in 1886 iron and steel, including iron ore, of the invoiced value of \$43,543,216.

Commodities.	Net tons.	Values.
Pig iron.....	405,180	\$5,454,784
Scrap iron.....	97,635	1,056,387
Scrap steel.....	11,353	145,649
Bar iron.....	32,647	1,250,456
Iron rails.....	7	166
Steel rails.....	46,571	887,267
Cotton ties.....	11,561	288,360
Hoop, band, and scroll iron.....	128	2,949
Steel bands, sheets, and plates.....	4,719	224,879
Steel ingots, bars, etc.....	167,257	3,298,707
Sheet, plate, and taggers' iron.....	6,852	518,417
Tinplates.....	288,761	17,504,976

Commodities.	Net tons.	Values.
Wire rods	153,401	\$3,940,849
Wire and wire rope.....	2,689	512,389
Anvils, axles, and forgings.....	963	105,072
Chains	669	70,883
Cutlery		1,822,511
Files, file-blanks, rasps, and floats....		57,478
Fire-arms		936,554
Machinery.....		1,697,883
Needles		335,514
Other manufactures of iron and steel..		1,518,649
Total.....		<hr/> \$41,630,779 <hr/>
Iron ore.....	1,164,165	\$1,912,437

The effect of these enormous importations upon the British market is not a question upon which American economists need speculate. The prostrate condition of the market, its long-continued depression, and the ruinous prices, the lowest that had been recorded "for thirty-four years," that prevailed during 1886, and the source whence relief came, have been stated by those eminent British authorities, the *London Iron*, the *London Statist*, and the *London Economist*.

Says the *London Iron*, when elaborately reviewing the iron trade of last year:

"The year just closed upon us may be described as one of hope as regards the iron trade of Great Britain. Certainly anticipation of better things, rather than realization, has been the lot of those connected with it. In 1885 it was thought that the worst had been experienced, and that it would be well-nigh impossible to surpass the desperate condition of trade prevalent during that year, but 1886 has proved that to the deepest depths there is a deeper still. In

only one direction could a ray of light be discerned, and that was the improvement which the exports of iron and steel began to exhibit. In almost all the other leading phases of the trade the condition of things grew blacker and blacker. Prices went from bad to worse, although there had seemed scarcely any margin for further shrinkage. Whether in pig iron, steel rails, merchant or shipbuilding iron, values continued to decline. At the same time, production, in iron at least, fell off largely, but notwithstanding this stocks of pig iron in the two principal centres of production increased rapidly. Anticipations had been indulged in towards the close of 1885 that the turn of the year would bring improvement, but these were doomed to disappointment. The opening weeks of 1886 were characterized by much dullness, and the long-continued depression only became intensified. Prices of pig iron broke away, that of Scotch, which was 41s. at the beginning of the year, touching 38s. 4½d. about the middle of February, the lowest figure recorded for thirty-four years. In short, if it had not been for the increased quantities of iron and steel taken by the United States last year, the aggregate of the exports from this country, so far from exhibiting any improvement, would have revealed a loss of close upon 150,000 tons for the year."

The London *Statist* puts the matter thus :

"With the single exception of the American trade there has so far been no improvement in the demands for English iron. Other countries have taken less than in previous years."

And the London *Economist* says :

"It is pretty well known that the late revival in the English iron trade was largely, if not exclusively, due to an increased demand from the United States, which set in during the latter part of 1886."

These national and international statistics and con-

siderations are neither far-fetched nor wide of the mark in a letter on the iron industry of the South, addressed to the country through a *Southern industrial and hardware newspaper*, as the *Manufacturers' Record* is. It can certainly do no harm to the Southern people to tell them that last year we imported more than \$43,000,000 worth of iron, which she could have produced had her material resources been thoroughly developed, and her laboring people been trained in manual dexterity and industrial art. But, if this sweeping proposition be doubted, the most dismal pessimist will not deny that the South may produce her own tools and builders' hardware and railway supplies, including rails of iron or steel. Yet in all these respects she is lamentably deficient, as a single illustration will prove:

"Since 1880 14,336 miles have been added to the railroad mileage of the South. The Southern States east of the Mississippi have only a mile of railroad to 23 square miles of territory, while the Northern States east of that river have a mile of road to each seven miles of area; to equal that proportion the South must build 54,000 miles of new road."

"But," says my pessimistic friend, "your assertion that the South can ever make her own steel rails from native ores is mere swagger. The assertion that she can do so is denied by many and credited by but few experienced metallurgists." "Nor," adds he, "is her supply of mineral fuel believed to be adequate in quantity or quality to create and maintain a great iron and steel industry." Happily for the country, the gloomy forebodings of my interlocutor are the result of his dyspeptic condition, and not of an investigation of the mineral resources of the South. In my letter of the 15th of last December, I

alluded somewhat elaborately to the South Tredegar Bessemer Nail Works, of Chattanooga, and said "it is remarkable for the perfection of the nails it produces." The pig iron it converts is made from the Cranberry ore of North Carolina; the fuel used is coke made from Tennessee coal; and its laborers are, and I made special note of the fact, young negroes who had had no previous mechanical training. The capacity of every department of these works has just been doubled. And since the 7th of May, on which date the Roane Iron Company, of Chattanooga, completed its Bessemer plant and nail mill, that company has drawn from North Carolina and Tennessee the ore, fluxes, and fuel from which it has daily made 250 tons of first-class Bessemer rails. Through the courtesy of Mr. Swank I am able to present an authentic statement of the progress of these works, from a recent letter of the accomplished and energetic president of the company, Capt. H. S. Chamberlain, who says:

"The Roane Iron Company built two 8-ton open hearth furnaces in 1878, and in December, 1878, we made our first steel rails. No Bessemer ores had at that time been developed in the South, and pig iron and crop ends were brought principally from England, although small quantities of pig iron and rail ends were purchased from time to time in the East. These furnaces continued making steel for rails until January, 1883, when, on account of the depression in the steel-rail trade, they were closed down, and have not since been operated. The development of the Cranberry ores in North Carolina giving us a cheap Bessemer ore of the highest quality (phosphorus being only from 0.009 to 0.013 per cent.) led our company to begin the construction of a Bessemer plant in the fall of 1886. The plant as finished consists of one 5-ton converter, but every thing has been built with a

view to erecting a second vessel should it be deemed advisable. On May 7th, at 5.37 P.M., the vessel was turned up with a charge of 7,800 pounds of metal, and at 5.57 the first steel was poured. Three ingots were made, which were rolled into ten 56-pound rails of full length and superior quality. The iron used was made at our furnaces at Rockwood, Tenn., from Cranberry ore."

But the Cranberry mines are not the only local source of supply on which Southern steel makers must depend. It is, I believe, not doubted that large deposits of manganese and magnetic ores have been found near Cartersville, Ga.

A recent incident in the story of Anniston has its place in this discussion. As long as they controlled the Woodstock and Clifton companies, and confined their operations to the production of charcoal iron, the question of mineral fuel was one of minor importance to Messrs. Noble & Tyler. But when they entertained the proposal to capitalize the Anniston City and Woodstock properties, and determined to open their accumulated resources to the enterprise of the country, the question of an exhaustless supply of coking coal assumed importance. They already owned many thousand acres of coal, the coking qualities of which had not been proven, and the quantity of which, though large, was not equal to the probable demands of Anniston's future shops. In accordance with their policy of anticipating possible necessities, they employed experts to examine the coal fields within available distance. Specimens of coal from all these fields were collected, and contemporaneously with the announcement that preliminary work had been commenced on the two great coke furnaces of the newly organized Woodstock Company, the fact was made public that Messrs. Noble & Tyler had

invested \$550,000 in the purchase, for the exclusive use of the people of Anniston, of the property of the Cahaba Coal Company, and proposed to nearly double the investment in the work of sinking slopes and shafts sufficient to increase the output from 15,000 tons per month to 60,000 tons, and the immediate construction of 500 coke ovens.

That those who are skilled in such matters may form an opinion of the quality of this Alabama coal, I submit two analyses of it, which I obtained when in Anniston in April. They represent a car load which had been coked for 50 hours in the Woodstock ovens, and are as follows :

	No. 1.	No. 2.
Volatile hydro-carbons.....	4.508	4.324
Fixed carbon.....	87.607	86.923
Sulphur	0.745	0.673
Ash.....	7.140	8.080

But if for the present there should seem to be in this section of our country, so affluent in diverse mineral resources, a lack of certain qualities of ore or fuel, it would prove nothing. The country has not been scientifically explored. Indeed, a good geological reconnoissance of Alabama, Georgia, and Tennessee has not been made. Nor will the iron-producing South depend exclusively upon these States, or those contiguous to them, for her future supply of ores and fuel.

The construction of the first Pacific railroad and of the Suez Canal revolutionized the commercial geography of the world, and the completion of the roads now in process of construction, by which the iron mines and coal measures of Colorado are to be connected with Galveston, will modify essentially the commercial relations of the Gulf States. Galveston will then be as near to Denver and

Pueblo as New York is to Chicago. The magnificent Bessemer rail-mill, nail-works, etc., of the Colorado Coal and Iron Company, at Pueblo, depend on local ores, coal, and coke, the exhaustless stores of which they can share with the people of the Appalachian hills. As remarkable an increase of possibilities is also imminent in another direction. The statesmen of Arkansas have not yet permitted themselves to be persuaded that any political or economic progress has been made since 1798, and one of them, Mr. J. Poindexter Dunn, during the last session of Congress, closed a philippic against the developing influence of the protective system with an elaborate, eloquent, and *original* peroration, with the identical thoughts, illustrations of fact, and felicitous choice of words that had been used in defence of free trade by Mr. Poulett Thomson, an English statesman, more than 57 years before. But the world moves, and the spirit of the New South will some day penetrate Arkansas and possess her people; for a slight extension to the west of the Memphis and Charleston road, which must soon be made, will open to the furnaces of Nashville, Chattanooga, Birmingham, Anniston, and South Pittsburg inexhaustible supplies of magnetic ore as rich in Bessemer-steel-producing qualities as that of the mines of Michigan, Wisconsin, and Minnesota, from which Illinois, Ohio, Pennsylvania, New York, and West Virginia now draw part of their ores. In view of these facts, may I not answer the questions: Can the South ever make steel, and where can she obtain a supply of fuel? by denouncing them as the vaporing of inanity.

But in my judgment the future of the South depends largely upon a higher question than that of material supplies. A trained and courageous or ambitious man is largely the master of his environments. The South is

blessed with an abundant supply of hardy, docile, and faithful laborers, many of whom, as recent educational efforts have shown, are endowed with more than average intellectual gifts. It cannot, however, be said that they are generally educated, or that any of them have the trained hands and eyes which are as essential to the skilled artisan as they are to the artist. The pre-eminent want of the industrial South is the training of the hands and eyes of its laborers to co-operative action, which is often successfully imparted in infancy in the kindergarten, and their training to familiarity with mechanical implements and their uses, and in industrial art, as is done at the Cooper Institute, New York; the Spring Garden Institute, Girard College, and the Industrial Art School, Philadelphia; in the Manual Training schools of Chicago and St. Louis; and in hundreds of institutions throughout New England and the manufacturing towns of the West. It is fortunate for the South that the expertness and productive power of labor do not depend on the race, color, or previous condition of servitude of the laborer or artisan.

LETTER VI.

COTTON-GROWING AND AGRICULTURE CONTRASTED.

THE ELMS, PHILADELPHIA, August 1, 1887.

In all ages and countries nations whose people have devoted themselves exclusively to agriculture have been liable to the horrors of famine. This proposition is one of universal application, and is as demonstrably true of our country, in the closing years of the nineteenth century, as it was of Egypt in the days of the Pharaohs.

Among the brave and determined leaders whom Grant paroled at Appomattox was Gen. Wm. T. Wofford, of Georgia. His home was at Cartersville, in the fertile and everywhere beautiful valley of the Etowah, to which, when the terms of his parole relieved him from duty on the staff of Gen. Lee, he immediately returned. The valley, robed as it was in the bloom of spring, seemed to him more beautiful than ever; but it was with the charm of outline and of verdure mingled with Flora's daintiest and most brilliant coloring, and not the beauty which springs from the promise of future plenty and comfort. Broad acres that would reward labor an hundred-fold, the conditions of nature which promote abundant crops, and thousands of willing laborers were there, but the conjunction of happy circumstances was not complete; indeed it was fatally defective, for, though the season for planting had come, seeds from which food might be grown were wanting, and their fields were the people's only resource.

A day at home served to show the great-hearted and keen-eyed soldier the path of duty; it was to hasten to the country's capital, and, with the courage of one who had never faltered on the field, present to the representatives of the people, who had approved the terms of parole which left him in possession of his horse and sword, the necessitous condition of the millions whom they had been unable to subdue until their last resources had been exhausted.

As soon as he had adopted this resolution, Gen. Wofford hastened to Washington, where it was my privilege to meet him immediately after his arrival, and to cooperate with him in the noble work to which he had devoted himself. Happily my annual quota of seeds had not yet been drawn upon, and to order it from the Agricultural Department to my rooms and invite the General to avail himself of the premises for his workshop or head-quarters was the work of but a moment. During the next day a paper assigning the quota of seeds belonging to the signers was circulated among members, and before the adjournment of the House the vegetable seeds to which many Northern constituencies were entitled had been transferred to the order of Gen. Wofford, who undertook to broaden his distribution beyond the range of his military connections and personal sympathies.

Upon the suggestion of friends he also saw the President, the Secretary of War, the Secretary of the Interior, and the Commissioner of Agriculture. His presentation of the condition of the people whom he had assumed to represent, made it apparent that the necessity for immediate relief was too urgent and general to be met by individual action.

Accounts forwarded to the War Department by district

commanders confirmed Gen. Wofford's most deplorable statements, and invited the immediate action of Congress in behalf of our suffering countrymen. Unwarranted responsibilities were cheerfully assumed by the chiefs of the War and Interior Departments and the Commissioner of Agriculture while appropriate legislation could be matured. Among the agencies for systematic relief that were provided by Congress was the Bureau of Refugees and Freedmen, the law establishing which ignored distinctions of race or color, and provided for the distribution among the necessitous not only of seeds, but of the means of current subsistence.

My intercourse with Gen. Wofford during the weeks he remained in Washington was as frank and cordial as mutual respect and common endeavor in a cause in which both were heartily interested could make it. I was conscious of a keen desire for information as to the industrial condition of the South, and especially as to its agriculture; and well do I remember the surprise with which I learned that its farmers never availed themselves of the invigorating and otherwise profitable practice of rotating crops, but devoted themselves to cotton-growing, and resorted to the use of imported or chemically manufactured fertilizers when able to pay for them. It was while portraying the fatal influence of the one-crop system that I alluded to the great value of clover in promoting a supply of barn-yard manure, and in the elements which the plant itself imparts to the soil when, after having yielded crops of hay, it is ploughed under. The response to these suggestions was that clover had not been believed to be among the possible crops of Georgia. I recur at this time to the conversation of that evening, because of the intense surprise with which I listened to Gen. Wofford's

statement, and because he then expressed the hope that the discovery of a small bag of clover seed among the effects of a fugitive from Northeastern Virginia might lead to the general cultivation in his part of the State of that beneficent grass, though the belief that it could not be grown in Georgia had been universal.

Under the influence of a series of experimental plantings by the Virginia farmer of seed from his accidental sack this false belief was, the General said, yielding to the power of demonstration, as every such planting was followed by an abundant crop. Though I had heard much of the artless and exhausting culture of the cotton lands of the Gulf States and of the lowlands generally of the South, I would not have believed, on testimony that could be questioned, that the same fatal improvidence had characterized the recent methods of the farmers of the once famous wheat-growing valleys of Upper Georgia. I could not, however, question the statements of my informant; and rapidly accumulating evidence forced upon me the conviction that, though the people of the South were so devoted to planting interests as to be unwilling to permit the establishment among them of work-shops, foundries, mining camps, furnaces, forges, factories, and the commercial, professional, and social accessories of such establishments, they were in no just sense of the word agriculturists, and each day furnished abounding proof that they knew nothing of "the art or science of cultivating the earth"; that they were not cultivators of the fields, and did not practise "husbandry with frugality and thrift." They grew cotton in some sections, sugar in others, tobacco, rice, and hemp each in other sections, but they did not raise their own household supplies, or make and gather domestic fertilizers with which to invigorate their famished fields.

Since the war cotton seed has by various processes of manufacture become almost as profitable as the crop of lint, one of its products being an absolute refutation of the theory that successful cotton-growing must impoverish the soil. I allude to cotton-seed cake, the residuum from which the oil has been pressed, which is a nutritious food for cattle and horses, and an element of inestimable value in barn-yard manure. But in the days of which I write the cotton seed not required for planting was loosely scattered over the fields as a cheap fertilizer. In no part of the cotton-growing South in which I have travelled have I been able to discover evidence that fields from which crops were expected had received from their husbandmen the sustenance and care that a wife might expect from even a shiftless husband, or the provident care that the law exacts from a ship's husband. Some of the impressions made upon me on this point by the terrible effects of the destructive methods of the so-called agriculturists of the South during my trip in the spring of 1867, just twenty years before my recent visit, were recorded by a reporter of the *Philadelphia Inquirer*, and may be found in a volume published by Henry Carey Baird in 1872.¹

On that trip I left Cincinnati en route to New Orleans, crossed parts of Kentucky, Tennessee, Mississippi, and Louisiana, and returned by way of Alabama, Georgia, South Carolina, North Carolina, and Virginia. On the evening following my return thousands of my fellow-citizens came to my house with music and banners to congratulate me on my safe return, and, as indicating the controlling impressions made upon me, I present the

¹ "Speeches, Addresses, and Letters on Industrial and Financial Questions," by William D. Kelley, pp. 175-8.

following extracts from the impromptu remarks addressed to them as I found them reported in the *Inquirer* :

“ I saw during my trip a country upon which the Almighty has with most lavish hand bestowed His richest material gifts. It is gorged with every mineral. I have scarcely been in a State that does not abound in coal, iron, copper, and lead, and have travelled over a region of country richly underlaid with gold-bearing quartz. Let me speak specially of North Carolina, because, as is equally true of Virginia, poverty has driven hundreds of thousands of her native citizens into exile. My friends, North Carolina is the most beautiful and richest portion of God's earth upon which my vision or feet have ever rested. You know that she produces cotton, rice, indigo, tar, pitch, turpentine, and superior timber. You know that her soil and climate are adapted to the cereals, wheat, corn, rye, buckwheat, and oats, but you probably do not know that that State, long known as the Rip Van Winkle of the Union, from which more than fifty thousand free white people have fled to the two States of Indiana and Illinois, is the land of wine and honey, the apple and peach, the fig and pomegranate, all of which I saw prospering in open field and under the most artless culture. Its native vines made the fortune of Longworth, who carried cuttings thence. The wine-producing vineyards of Western Pennsylvania, and around the borders and on the islands of Lake Erie, and those scattered through Missouri, are from cuttings taken from the native vines of North Carolina—the Catawba, the Lincoln, the Isabella, and, richer than all, the Scuppernong, of which, as it has not yet been successfully transplanted, Eastern North Carolina has the monopoly. There it grows spontaneously as a weed.

“ The woods and hill-sides teem with the richest honey-bearing flowers, and the bees invite you to put up a rude box, that they may reward your kindness with the sweetest treasure. There is not a vegetable we produce that will not thrive in

North Carolina ; and as I travelled through this native wealth and beauty I saw how sin had driven man out of Paradise, for never had I seen such poverty as I found in North Carolina, save in South Carolina, Alabama, and Mississippi, where people are starving in the midst of nature's richest bounties.

"You cannot comprehend and credit this statement. I tell you it is true. I could not credit it myself. It was long before observation enabled me fully to comprehend it. Go with me to Mississippi. I will take you to Hernando. Once Hernando was an important railroad town and station. There are scattered around it a few large old mansions, abandoned and going to ruin. It was once the centre of a great cotton-growing region, but now, as far as the eye could range from the platform of the car, we saw nothing but sedge grass, a surface weed, or the red subsoil washed and cut by countless gullies, till under the bright sun it looked like myriad flames of red fire blazing up from the earth.

"The owners of that once rich land had planted it each successive year with cotton, till they extracted from it every agricultural element, and those fibrous roots with which nature mats the soil and protects it from washing. In response to a question as to the extent of the desolation we beheld, a fellow-traveller, a Mississippian, said : 'It is pretty wide. There is not a plantation within miles of the station on which a family could make a living' ; and he added, 'the soil was always light, and when the rain began to wash it, it made quick work of it.' Skillful culture would not only have saved that wide region from desolation, but added to its wealth-producing power.

"What would we in Pennsylvania, with our manifold diversification of pursuits, think if the owner of a farm of one hundred acres should apply to the government for rations to support his family ? Yet it is not a novel or unnatural sight at the South. Lieutenant-Colonel J. R. Edie, of the 8th Infantry-is Post Commandant at Salisbury, N. C., and administers the

affairs of the Bureau of Refugees and Freedmen within his command. I recognized in him not only a gallant son of Pennsylvania, but an old personal friend. It happened to be ration day, which occurs, I believe, once a fortnight, and with my companions I gladly accepted his invitation to his office, that we might observe the character and necessities of the applicants. They must have numbered hundreds, a large preponderance of whom were whites. Many of them had walked more than fifteen miles to procure a little corn and bacon.

"As one lean, pale woman advanced and gave her name, the Colonel said: 'You have been here before, and I think you own land.' 'Yes, sir,' said she, 'I own a little.' 'How much?' asked he. 'About a hundred acres.' 'How much of it is cleared?' 'The butt end of it.' 'Well, then, why did you not plant it?' 'All that is cleared is planted.' 'What, then, brings you for rations?' 'Want, Colonel; I must have something for the children to eat till the corn ripens. I can't make it ripen till the season comes.' (A voice—'They are too lazy to work.') No, my friend, they are not too lazy to work. They are willing to work. They need guidance and instruction. I told them in my public addresses that in their primitive way they work harder than we. ('They are too lazy to work.') No, my friend, I understand them better than you. You would deem it hard work to walk fifteen or twenty miles for a few pecks of corn and pounds of bacon, and carry them on your shoulder to your distant home.

"The woman of whom I was speaking was not probably a lazy woman. She knew nothing of our agricultural implements or methods, but was doubtless regarded by her neighbors as an adept in Southern agriculture. Like her neighbors, whose lands would not produce cotton, or who did not own laborers to cultivate and pick it, she had planted her exhausted acres with corn, and when that single crop failed the country was famine-stricken, as Ireland was when rot assailed the potato. Yet we had eaten, the day before, at Concord, but thirty miles

distant, at the hospitable table of Mr. McDonald, an old Pennsylvanian, but long a citizen of North Carolina, a variety of delicious vegetables, among which were potatoes as mealy as can be grown on our virgin hill-sides.

"The people of whom I speak had been taught to believe that cotton was the one thing to the production of which the South should devote herself, and that corn as food for 'mules and niggers' might, with propriety, be raised when cotton could not. A former Southern leader said to me : 'We bought niggers and mules to raise cotton, and raised cotton to buy niggers and mules,' and I good-humoredly replied : 'Yes, and your continuous culture of cotton having eaten up your land, your negroes and mules were about to eat you when you began the war.' Thus it came that destitution and despair brood over the sunny South, while its unequalled water-power runs to waste, and its widely diffused and inexhaustible mines of gold, silver, copper, lead, iron, etc., and coal to work them, lie undisturbed where nature deposited them. There are in North Carolina, as the census shows, 47,000 white adults who cannot read, and in Virginia 74,000."

But it may be asked, why recur to these painful memories of twenty years ago? and suggested that they do not tell the story of the Old South and her methods, but portray the horrible results of years of fratricidal war. Such question or suggestion would involve a vital misconception of the facts. The poverty that made such drafts on my sympathies was not of recent origin; it had existed before the war, and was an inevitable consequence of methods of farming which could not fail to impoverish the people, as they involved a systematic and persistent exhaustion of the lands from which alone they could draw supplies. That the absence of agricultural implements and the prevalence of exhaustive methods of raising crops

were the causes to which I then ascribed the wretchedness of the Southern farmers, is shown by the following passage from the address above referred to.

“What are required to regenerate the South are subsoil ploughs, phosphates, agricultural implements generally, a large increase of horses, mules, and horned cattle, a steadily increasing supply of steam-engines and machinery, and such manufacturing machinery as can be moved by water-power. These, with a comparatively small amount of cash capital and a few earnest men to teach others their use and value, would in a few years make the South bloom like a garden, and develop a population as loyal as was that of any Northern State during the war. The interests of Northern capitalists require them to supply these potent agents at the earliest practicable day.”¹

But apart from the New South, by which I mean the country around the region of the rapidly developing iron industries, and of such manufacturing towns as Augusta and Macon, and the commercial centres created by the expansion of the Southern railroad systems, the same wretched poverty prevails among the Southern people now, twenty-two years after the close of the war, and in spite of the efforts then made by the government and the people of the North to mitigate the woes they were enduring, whether they had been caused by the war, or were, as I assert, the result of fatally vicious economic and agricultural theories. Yes the poverty and ignorance that characterized the “poor whites,” “the low downs,” “the clay eaters,” and “the crackers” of the old South still prevail over vast stretches of the best agricultural and the richest mineral States of the marvellously endowed South. Though prepared to adduce volumes of pregnant

¹ *Idem*, page 182.

proof of the truth of this statement, I decline responsibility for it, as I make it here under the sanction of the name of my friend, Hon. L. Q. C. Lamar, the present Secretary of the Interior. Mr. Lamar recently favored a reporter of the *Hartford Times* with an interview on the industrial condition of the South, which was published with his consent. The statements of Mr. Lamar on the points I am considering are so accordant with my own observations, and so illustrative of the soundness of my politico-economic theories, that I give a portion of the interview verbatim as I found it in the paper referred to :

“The apparent prosperity of the South,” said Secretary Lamar, “is to be found only in the cities, and not all of them share it. Atlanta, Chattanooga, Nashville, Knoxville, Birmingham, and other cities that are the centres of mineral development already made or anticipated are growing rapidly in population and apparently in wealth. Towns, also, that are situated upon the new railroads that have been built during the past few years are larger and more thriving than they were, but their growth has been largely at the expense of less fortunate towns that have either stood still or have actually deteriorated. This circumstance, I think, is likely to give an erroneous impression to the stranger passing through the South on the railways. He sees the towns at the various stations apparently thriving, the centres of new commercial enterprises, and he naturally concludes that the South is making very rapid progress ; but he does n’t know that the man who has opened a new store at one of these places has probably removed there from some town distant from the railroad where he closed up his former business, or the man who is building a new house is possibly a farmer who has become discouraged in the vain effort to make a living planting cotton, and has sold out and come to town hoping to do better, or,

perhaps, to have better opportunities for the education of his children.

"I am inclined to think, also, that the present prosperity of the cities which are the centres of industry in the mineral region, or whose growth has been stimulated by their proximity to or interest in it, is, to a great extent, speculative, based in some measure, at least, upon anticipated developments rather than upon those already made. Of course, I know that a good deal of capital has been invested there, and that much of it has gone from the North, and that many Northern people are settling there, and I don't wish to be understood as doubting the future prosperity of the region. I only say that the returns have not yet been realized. I ought to say that I have very little personal knowledge of the affairs of those sections of the South of which I have been speaking. The 'boom' has come since I have been there to remain long at a time, and my opinions are formed from what I have read in the newspapers and heard from persons who have been there. I think you will find, too, that such cities as Charleston, Savannah, Mobile, and New Orleans are now showing evidences of prosperity. Let us see," said he, taking down a compendium of the last census, "how much these cities increased in population between 1870 and 1880. Charleston gained in population in that decade 1,028, or at the rate of about $1\frac{1}{3}$ per cent. ; Savannah, gained 1,474, or about $5\frac{1}{4}$ per cent. ; Mobile actually lost 2,902 in population, and New Orleans gained 24,672, or about 13 per cent. If you remember that the average increase of population throughout the whole country during the same ten years averaged 30 per cent., you will see that there is nothing encouraging in these reports."

"How do you account for the apparent stagnation in what were formerly the great commercial centres of the South?" I asked.

"By the depression of the planting interest, of which I have already spoken," was the reply. "They are dependent upon the agriculture of the country for their trade."

"Have n't the crops been good?"

"Yes; that of last year was the largest ever made, with one or two exceptions. But the crop to-day is not proportionally as great as it was before the war. It must be remembered that the population of the South increased nearly 50 per cent. between 1860 and 1880. As agriculture is almost our only industry, and as cotton is our principal product, if we only held our own we ought in 1880 to have marketed 50 per cent. more cotton than we did before the war. But the truth is that the large crop of last year was only 25 per cent. greater than that of 1860. In other words, our population increased during that twenty years just twice as fast as our ability to feed and clothe it. You would n't look for prosperity under such circumstances, and you will not think it strange that the cities which are dependent upon agriculture for their trade should languish."

"I have not been South in several years," I said; "are there outward signs in the country of this depression of which you speak?"

"Yes, especially when one goes away from the railroads. Improvements are not kept up, and there is a general air of poverty, want of thrift, and the allowing of things to go to decay."

"To what cause do you attribute it?"

"I don't know. Probably it is due to a variety of causes. If I did not know how little influence legislation actually has upon industry I should say that the tariff was the chief cause; but I don't know that it is."

"The price of cotton averaged very low last year," I said; "has that had any thing to do with it?"

"Of course that cut down the income from the crop of last year; but the depression I speak of did not begin recently, and the price of cotton has been good as a rule."

"One cause is probably the wearing out of our lands. You know that all agricultural lands produce less and less except

they are constantly renewed by fertilizers, and our people are too poor to buy those. The increased aggregate crop is due to increased acreage, but we have not been able to increase the former in the same proportion that we have increased the latter and the amount of labor expended. We work over more ground and more hands are employed, but it costs more to make a bale of cotton now than it formerly did.

"Another reason, I think, why we do not raise as much cotton to an acre as we formerly did, is that we don't get what we call as good a 'stand' as we used to. The importance of this is not likely to be appreciated by one who has never lived where cotton is raised. If there are many long, vacant spaces in the rows of cotton plants, they may grow very thrifty, and the field, as one looks over it, may appear to bear a great crop, and yet, when the cotton comes to be picked, it will turn out light. Now, in order to secure a good 'stand,' that is, to have the ground all occupied, the closest care and attention are necessary at a certain critical period. In former times, when the planter had complete control of the labor, he could enforce this care and attention as he cannot do now. The cotton lands of the South are now mostly rented to the negroes, and if the owner retains an interest in the crop, he has no voice in the manner in which it shall be worked. If he should interfere, the negroes would resent it and leave. There is a great deal of careless farming in the South."

On the receipt of this remarkable deliverance, which is fraught with facts corroborative of my own economic views, and of protectionist doctrine as expounded by Henry Clay, Frederick List, Stephen Colwell, Henry C. Carey, Wm. Elder, John L. Hayes, James M. Swank, and most French and German economists, I mailed it to a correspondent whom I have for years regarded as more precisely familiar with the details and scope of Southern production and trade than any man in that section of

whom I have knowledge. I submit the following from my friend's reply, which was dated July 16th :

"I wish to say a word relative to the increase of cotton cultivation as a measure of prosperity suggested by the statement in Secretary Lamar's interview, that the population of the cotton States had increased 50 per cent. between 1860 and 1880, and that cotton had only increased 25 per cent.

"The statement that such increase as 25 per cent. occurred between 1859 and 1879 is substantially correct, though the crop of 1860 was large compared with preceding crops. It is also true that in the past seven years the increase has been 14 per cent., but it does not follow that the crop should increase with the population. It is the consumption of the world, and not the increase of population in the Southern States, that dictates the size of the cotton crop. And here is cause for serious reflection, for the population of the South has already advanced far beyond the ability of the cotton industry to support it. Not counting Virginia, ten cotton States contain a population of 11,477,681. The value of the cotton crop marketed in 1880, 2,771,797,156 pounds, at 11.5 cents per pound, was \$318,756,673, or \$27.77 for each individual of the population.

"'As agriculture is almost our only industry, and as cotton is our principal product,' and as the value of this production in 1880 was only \$27.77 per head, it follows that consumption cannot be very lavish or accumulation very rapid upon an average allowance of about \$139 per family. This presents in a nutshell the question of agricultural prosperity in the South. There is nothing mysterious in it ; there is no oppression in it ; the only trouble is, there is not money enough in it. There must be more work and more production to make more money—production in diversified agriculture, in mining, and manufacturing.

"The prevalent 'depression,' 'which did not begin recently,' the wearing out of arable lands, the lack of money to

buy fertilizers, the general 'want of capital,' are all results of one cause—the enforced idleness of large numbers of people, white and black ; enforced by limitations of custom, the disabilities of primitive industrial training, the inability to strike out on untried lines of effort. 'No capital' is the great stumbling-block, but money will be abundant anywhere with persistent labor behind it. The South is languishing under bondage to an industrial fallacy, the munificence and sufficiency of cotton as the sole source of rural prosperity, and would grow poorer and poorer by longer submitting to such vassalage.

"As a matter of fact, however, the cotton States have already more wealth than at any former period ; more results of 'dried labor,' more factories and workshops, more railroads and public improvements, better houses and more furniture, as a result of the local efforts for diversification ; it has less debt for advances on crops, fewer mortgages on farm property, and less dependence on the West for corn and bacon, and on the East for cotton goods. At the same time, it has more incorporated capital and more available money for investment. The feeling of depression is a reaction from the unrest of the industrial awakening, and while it is real enough, it is slowly disappearing.

"The South has marvellous advantages, and persistent and plucky men for leaders in the industrial movement, and can get special skill and money from outside, and rapidly develop skill in the body of its native labor. It has been too deep in the cotton rut to get easily out of it to make a beginning, but once fairly out, industrial development can only be delayed by extraneous and unnecessary causes."

In 1884 there came from the press of the American News Company an invaluable little volume entitled "Farm and Factory ; Aids to Agriculture from Other Industries," which, with its instructive statistical appen-

dices, embraces but one hundred and twenty-eight pages, and is sold at twenty-five cents per copy. Not to refer to this brochure of Mr. J. R. Dodge, the statistician of our Agricultural Department, would be to withhold from Mr. Lamar an easy reference to precise and ample statistics which elucidate problems that are giving him anxiety, and from his fellow-citizens a crowded magazine of facts confirming the justice of their confidence in the belief that riches and prosperity will be found throughout the South when mineral and manufacturing development shall have constrained her farmers to diversify their crops and look to their flocks, herds, barn-yards, and the rotation of crops for fertilizers that will give vitality and market value to their moribund cotton fields. It is also due to the author that I should thus publicly acknowledge in advance my indebtedness to him for statements I may be tempted to quote without special acknowledgment.

An acre of farm land in Connecticut, whose manufactures are so widely diversified that but eighteen in every hundred of her people were in 1880 getting their living by labor on the land, is shown by the census of that year to be worth \$49.34, while an acre of better farm land in Alabama, 77 per cent of whose people were engaged in agriculture, was worth but \$4.19.

In New Jersey, to whose fields the myriads of non-agricultural laborers of Philadelphia and New York look for many of their table supplies, and the average value of whose farm land was \$65.16 per acre, but 15 per cent. of the people were employed in agriculture. The following is one of several comparative statements which were carefully compiled by Mr. Dodge from the report of the census of 1880, which together prove the existence of, and account for, an appalling difference in the value of farm

land in manufacturing and non-manufacturing States. A represents the number of acres in farms, B the value of farms, C value per acre, D per cent. of workers in agriculture :

"States.	A	B	C	D
Georgia	26,043,282	\$111,910,540	\$4.30	72
North Carolina	22,363,558	135,793,602	6.07	75
South Carolina	13,457,613	68,677,482	5.10	75
Alabama	18,855,334	78,954,648	4.19	77
Mississippi	15,855,462	92,844,915	5.86	82
Arkansas	12,061,547	74,249,655	6.16	83
"Total	108,636,796	\$562,430,842	\$5.18	77

"The story of lands without buyers and farms at nominal valuations in 1880 is simply told thus : Georgia has 6 per cent. in manufactures ; North Carolina has 7 per cent. in manufactures ; South Carolina has 5 per cent. in manufactures ; Alabama has 5 per cent. in manufactures ; Mississippi has 3 per cent. in manufactures ; Arkansas has 4 per cent. in manufactures."

But, leaving those who desire to know more of Mr. Dodge's statistics to study them in his little volume, I recur to my personal observations. During my first visit to Anniston I observed the arrival each morning of numbers of wagons, most of which were freighted with a bale or two bales of cotton, but upon a small number of which were three bales. The teams that drew these vehicles were motley and sometimes grotesque, being a mule, an ox, a horse, a bull, a cow, or a combination of any two of these animals. The driver was in each instance a man who had with him a woman, and was sometimes accompanied by two or three women. My attention having been attracted by these daily processions, which moved with much solemnity, I learned that they were made up

of farmers who were accompanied by wife or daughter, or by wife and daughter, or probably, in the instances in which there were three women in the party, by wife and daughter and a daughter-in-law who had her home with her husband's family. The object of the mission in each case was the sale of the one cash-producing crop raised by the family from the farm on which they lived, and the "laying in" of the producer's annual supply of store goods. The pilgrimage was not expensive, as each of the parties brought its own supplies, and long open sheds lined one side of a lot adjoining what in courtesy might be called the cotton exchange, into which the wagons were driven, and in which they might remain a reasonable time without charge.

To sell the cotton was a simple operation. The price is fixed and known, and the scales are notoriously honest. It is therefore a mere question of weight and computation. The price in December last of such cotton as these people had produced was eight cents per pound, and the bales were expected to average about 500 pounds. Here we have the elements from which we may calculate the annual commercial value to the State and country of these families of poor white Southern farmers, whose allegiance to King Cotton is still, by reason of the hard conditions by which they are environed, as subservient as it was when his sceptre swayed the affairs of the Union.

The first business of the day was to dispose of the crop and to receive its value in cash. While this operation went on teams thronged the avenue to the cotton market, and when it closed, they were to be found blocking the broad roadway of Noble street, in front of the stores that line its sides for a couple of blocks. Of course these humble, honest, and orderly people, for such they are,

though constituting a typical and very numerous class of cotton planters, do not represent the owners of the great plantations, the exclusive production of cotton on which, by the artless and wasteful methods of the past, is consuming the life and substance of their owners, who, in the halcyon days of the New South, will probably be regarded as having constituted one of Dr. Oliver Wendell Holmes' provisional races.

It was my privilege to find among the guests of the Inn Mr. Matthew Addy, of Cincinnati, whose technical and historical library of works on iron and cognate topics is known to mining and mechanical engineers and metallurgists throughout the country. In charge of Messrs. Samuel and George Noble, a party, including among others Mr. Addy and Mr. Randall, the newly installed and brilliant editor of the *Hot Blast*, we left the station of the Anniston and Atlantic Railroad to examine an immense deposit of brown hematite ore which is among the reserve resources of the Clifton Iron Company. Farmers were busy planting or preparing to plant their fields. Noticing, with an expression of surprise, the smallness of the mule and the lightness of the plough with which a man was scratching the surface of a field, I was told that if I interrogated the farmer on the point I would hear that a heavier plough would lessen the probability of getting a crop, and that as a small mule consumed less food than a large one, and could do the work required as well as a larger one, good farming required the use of the one that would consume the least food. My incredulity evidently found silent expression, for Mr. George Noble, who is something of a wag, appealed to the other members of the party for confirmation of his statement. While seeming to assent, I resolved to test by future observation what seemed to be

so incredible a story. The valley through which the Anniston and Atlantic Railroad runs is more than sixty miles long, and is known in parts as Chinnabee, Talladega, and Sylacauga valleys, and the hills along the south side constitute for about sixty miles an almost unbroken line of immense deposits of iron ore. On the north side much of the land is under cultivation, but, so far as that morning's observation went, not on the light-plough and little-mule theory. On the contrary, the fine horses and teams of noble oxen, between which the several kinds of work in progress were divided, would challenge admiration if seen on the best farms of Lancaster county, Pennsylvania. They were on the land of Mr. Hugh McElderry, with whom I was soon to become pleasantly acquainted, and a brief letter from whom will shortly tell my readers something about the details and results of farming in Chinnabee valley. The adjoining farm was also under high cultivation. A curiously illustrative story attaches to this property; it was part of the estate of the owner of the heavily wooded hill, to inspect whose vast stores of hematite ore was the especial object of our excursion. The mineral lands were "too rough and rocky" for cultivation, and to make cotton so far from navigable water, on which it could be floated to market on a flat-boat, and in the absence of a railroad, would no longer pay, and the whole estate was therefore sold at low figures to the Clifton Iron Company, from which the vendor now finds large annual profit in leasing the non-mineral-bearing portion of his estate at a rental which gives the company a good rate of interest on the entire purchase-money. Nor does the good man pine over the existing state of affairs, as he now clears annually from his leased but well cultivated farm more than he ever made off his whole

estate before the Anniston and Atlantic Railroad had been laid through the valley, and the growing non-agricultural population of Ironaton and Jenifer, the Clifton Company's furnace towns, and the rapidly augmenting population of Anniston and its suburbs, Oxford and Oxanna, gave him, as they now do, a quick and remunerative market for all the secondary products of the farm. The following note from Mr. McElderry may be accepted as speaking generally for his neighbor, Mr. Jones, as well as in detail for its author :

MCELDERRY, ALA., May 31, 1887.

HON. WM. D. KELLEY :

MY DEAR SIR :—Your favor of the 27th just to hand. I take pleasure in answering your questions so far as is in my power.

My place is located in Chinnabee valley, Talladega county, Ala. It was the dwelling-place and now is the resting-place of Chinnabee Chief, the friendly Indian who succeeded in doing much service to the whites during the Creek war of 1812-14. My place consists of 1,280 acres, and is divided as follows : 600 acres in cultivation and 680 in fine timber.

Of the land in cultivation I have 220 acres in cotton, 190 in corn, 120 in wheat and oats, 10 in rye, 10 in truck patches, and 50 in clover, orchard, and blue grass.

My woodland furnishes native pasturage for cattle and mule colts from May to December. I raise my own hog meat, and have Jersey cows and mule colts for sale. For manure I depend on ground cotton seed, acid phosphate, and stable manure mixed. This compost surpasses any guano.

The Anniston and Atlantic Railroad traverses Chinnabee valley a distance of five miles and Talladega valley a distance of twenty miles. Under the influence of drainage, deep turning, and thorough but shallow cultivation, these lands are showing marked improvement in production. So great has been this

improvement that the Talladega county farmers last year took the highest premium for the best display at the State Fair. These valleys will produce almost any kind of truck or staple crop, and under the beneficent effects of a home market will inevitably make their owners rich. Indeed, already there are many fresh signs of prosperity. My wish for you is a long life and much happiness.

HUGH McELDERRY.

I have been asked whether I was kindly received by the people generally of the cities and towns I visited, and if I always felt free to express my opinions as pointedly and unqualifiedly as I habitually express them to my constituents. Now, when entering upon an account of visits to communities to which I was personally a stranger, though many of their members had known me by reputation, and had at one time held in abhorrence my opinions on political and economic questions, seems to be an appropriate time to say that, when speaking to audiences made up of people of every shade of opinion, at Chattanooga, Birmingham, and Anniston during my first trip, and at Rome, Georgia, and Talladega, Alabama, more recently, and in social intercourse at Cedartown, Georgia, Rome, Talladega, and other places, I expressed, without rebuke or harsh criticism, my convictions as unreservedly as I could have done to my most sympathetic friend. This fact may possibly be corroborated by some of my future statements.

Capt. A. G. West, a whilom constituent of mine, is practically the founder of Cedartown as it is, though a small settlement may have been effected before his advent. His account of the purchase of a site for the Cherokee furnace and large bodies of ore and timber land, which are within the limits of or contiguous to Cedartown, recalls the story of the sale and subsequent occu-

pancy as a tenant of part of the Jones estate at Chinnabee. The breaking out of the war found Capt. West in the employ of a great corporation at Richmond, Virginia. A few weeks later he was in charge of a department of Colt's famous rifle and pistol works, at Hartford, Connecticut. After the war had closed he moved to Philadelphia and connected himself with one of the great manufacturing establishments of the fifteenth ward. While here he was moved to aid in developing the mineral region of the South, and became part owner and manager of the famous Shelby mines and furnaces. Having received a satisfactory offer for his interest at Shelby he sold it, and as a result of much personal exploration determined to settle in Georgia, on the elevated plateau that is drained by the Big Cedar Creek, if he could procure adequate bodies of ore and timber land at satisfactory prices. The successful accomplishment of such an enterprise at that time could be effected only by securing an optional right to take within a fixed time the property described at a fixed price in "the option." The tract which determined Capt. West's location, and which must be had as a preliminary purchase, was a large one, the arable acres of which surrounded immense ore hills, from which moss-grown boulders of iron ore protruded. While negotiating the purchase the Captain admitted the native fertility and value of the level land, but called attention to the size, number, and broken surface of the hills. "Yes," said the owner, "the hills are big and rough, and you can't make crops on them, but I took that into account when I set the price on the farm. If all the land had been fit for farming it would have taken a good deal more money to pay for it." The purchase was promptly concluded, as the price demanded was in reality little more than nominal.

It is not often that Pennsylvanians hear of farms selling at rates reduced per acre by reason of the presence upon them of practically inexhaustible deposits of high-grade iron ore, yet I heard of many well authenticated cases of the kind in Alabama and Georgia. But it is due to the New South to say that repetitions of this kind of folly are not likely to occur frequently in its rapidly expanding limits.

Having selected sites for a first-class furnace for the production of charcoal iron, for ovens for the making of the charcoal, for a flouring mill and elevator on the banks of Cedar Creek, to be run by the power of the

" Sleepy pool above the dam,
The pool beneath it never still,"

and for a capacious and imposing building for offices, a country store, and other purposes, and the dedication of land for several wide thoroughfares on lines in harmony with an existing town plan, Capt. West prepared for the improvement and cultivation of his newly acquired possessions. His report of the effect his preparatory measures produced upon the former owner of the land and his cotton-growing neighbors confirmed the prevalence in the vicinity of Cedartown of the light-plough and small-mule theory, and would have seemed ludicrous had it not been so sad. His heavy chilled ploughs, and subsoil ploughs with which to follow them, and all other needed instrumentalities, each of modern construction, together with large oxen and horses, alarmed his so-called agricultural neighbors.

Friendly whispers came from the man whose capital had diminished annually in spite of the labor he and his family had bestowed upon the farm which poverty had at length compelled him to sell, that such heavy teams

and ploughs would be worse than out of place on that land; that to disturb the soil to a greater depth than four inches would be dangerous, and the use of such heavy ploughs, and of subsoil ploughs after them, would be ruinous. Owners of contiguous farms were more outspoken and demonstrative. They not only advised the new-comer, who, though they did not know it, held options upon the farms of several of them, to confine his attention to iron-making until observation should convince him that such deep ploughing as he proposed would more than impair—would actually destroy—the fertility of the soil, or reduce it to such a condition that it could recover but by “a fallow” of twenty or thirty years’ duration. Happily for Capt. West he had been an inquiring observer of the agricultural methods of Connecticut and Pennsylvania, and believed that his personal interests and his duty to the well-meaning, honest, but ignorant people among whom he was casting his lot required him to make the earliest practicable demonstration of the boundless stores of wealth their shallow ploughing had hoarded in the exhausted cotton fields of Georgia. Having put his draft animals and heavy implements into skillful hands, he set matters in motion with the view to proving the capacity of the fields as they were when he bought them to yield without fresh fertilizing remunerative crops of wheat, corn, oats, potatoes, clover, and other grasses. His first year’s wheat crop was at the rate of twenty-six bushels to the acre, and the other crops did about as well. Believing that no farm should be devoted to cotton exclusively, and that agriculture, like manufactures, should be as widely diversified as practicable, he occasionally plants for cotton a field in which clover has just been turned under, in order to show old-time planters

who visit Cedartown how perfect "a stand" the plant makes on land which, though it has not for many years tasted an imported fertilizer, has been fattened by turning back upon it its own nutritious green crop.

Cedartown is the county town of Polk county, in the northwestern part of Georgia, a short distance from the Alabama line. In the days of which I have written it had no railroad connections. It is now the point at which the East and West road, by which Gainesville, Georgia, and Birmingham, Alabama, are connected, and the Rome and Carrollton roads cross, and has easy connections with immense deposits of red and brown hematite ore and manganese, with at least one available deposit of magnetic ore at Cartersville, and with vast quarries of many varieties of marble and of slate of equal quality with that derived from the quarries of the Lehigh Valley, Pennsylvania. I shall always regret that I had appropriated but one day to this interesting point of study, and that other engagements prevented an extension of the time. It was about the middle of April, and the capacious and elegant home of our host was shaded by flowering trees, whose blossoms breathed delicious odors, among which I need hardly say were fine specimens of the stately magnolia.

In the evening our charming hostess, Mrs. West, threw open the spacious ground-floor of the mansion, and thus enabled us to meet in pleasant social intercourse many of the ladies and gentlemen of the vicinity. The eager desire of these energetic, hopeful, and courteous people to hear the arguments by which the man, whom they had till recently regarded as the chief apostle of a system of oppressive sectional taxation, which had reduced the Southern people to the condition of hewers of wood and drawers of water for the "princely monopolists" of the North, would

attempt to legitimate his opinions, imparted to the occasion the character of a scientific conversation rather than that of a social reception. Nor was their interest lessened by my assurance that I advocated the maintenance of a highly protective tariff in the hope of enabling and inducing the people of the South to compete with Pennsylvania in the production of all her mineral specialties, by availing themselves of the vast riches that existed in their coal and ore beds; and, by the diversification of their crops, to so reduce the annual crop of cotton as to make the North pay more for its material for cotton cloth. That the protective system was susceptible of such a gloss appeared to be a revelation to some of my hearers. Yet, when I propounded the question, would not the survivors get better prices for their cotton, and have more favorable prospects for higher prices next year, if the men who are to raise one-fifth of this year's crop should be found dead in the morning, and their grief-stricken families should simultaneously discover that the fields on which their share of the cotton crop was to have grown had been stricken with temporary, but for the season absolute, barrenness, the proposition was assented to, because every one present had grieved over the fact that the exclusive devotion of the South to cotton growing had so increased the quantity produced as to have reduced the price in local markets for a succession of years to a point that had not repaid the cost of production.

Two at least, and I think more of my interlocutors, notwithstanding the improved condition and increasing intelligence of the masses of the people, sorrowed keenly over the departure of the slave-owning, cotton-growing, patriarchal days of the South; yet even they would have told my friend Lamar that, had the production of cotton in-

creased *pari passu* with the increase of population, as he thinks it should have done, it would have not merely overwhelmed the market but have reduced to destitution every cotton planter in the South. That the diversification of the crops and of the employments of the people are a pre-requisite to the prosperity of that section of the country was universally admitted. Nor were any of my auditors shocked or offended by the statement that my observation of cotton movements at Anniston had convinced me that one young negro, having abandoned plantation life and gone to work in a furnace, foundry, mine, or other non-agricultural employment, was worth more commercially to the city or State than were three of the cotton-growing families whose productions consisted of from one to five bales of cotton, a little corn for domestic use, and a few "razor-back" pigs, whether his value were measured by the value of his labor to others as shown by his wages, or by the amount he was able to spend in the purchase of the productions of the labor of other men.

These wholesome truths had been demonstrated to every resident of the vicinity by Capt. West in managing his farm and the business of the Cherokee furnace. His example and friendly offices, even to the extent of the loan of implements, had promoted a diversification of crops and the better fencing and cultivation of fields. As we had closed our inspection of the furnace a number of wagons were discharging the last load of ore they would bring that day. Supposing that they were the property of the company and were in charge of a corps of steadily employed teamsters, I congratulated Capt. West on the size and condition of his animals, and was told that they were the property of the drivers, most of whom made

more money by hauling "rocks" from the "rough hills" on their farms at a fixed price per ton than they had ever been able to make by growing cotton. "Every one of them," said the Captain, "raises wheat, corn, oats, clover, and fodder plants adapted to the climate, and knows that the way to fertilize his land is to care well for his stock and apply the accumulations of the barn-yard to his fields." By such practical means, in managing the affairs of a single furnace, has my friend and former constituent revolutionized the agricultural methods and improved the pecuniary and social condition of the people of a wide vicinage, which is remarkable for its beauty and its wealth of agricultural and mineral elements.

Next morning a number of gentlemen proposed a ride, in the course of which we should visit some of the openings of ore made on their own farms by the thrifty teamsters of whom I have just spoken. One of these openings proved to be into a veritable mountain of brown hematite ore. Yet, abundant and accessible as is the supply of ore, I heard no talk of booming Cedartown by promising more furnaces. The reported population of the town is 3,000, including the bar and county officers, and the desire of all its citizens with whom I conversed appeared to be to build up the town by making it a seat of minor industries, such as would bring together a prosperous population of mechanics and artisans. This aim is practical. If it be attained, additional furnaces will rise in response to demands for their output for consumption in the foundries and factories of a prosperous town. By an irrevocable law, the value per acre of adjacent farms will increase with the number of mechanics and non-agricultural laborers employed in the town. Of course this law applies only to wage-earning laborers, and not to

convicts leased by the State, of whom, I am sorry to say, about 100 are employed by the Cherokee Furnace Company. The leasing of its convicts by a State is a barbarism against which humanity revolts, and for the prevention of which honest laborers should everywhere combine.

On the evening of April 21st I addressed as many of the citizens of Talladega as could be accommodated in the county court-room on the means of developing the resources of the South. My visit to Talladega and the heartiness of my reception by her citizens were surprises to me. I had never to my knowledge met one of her people except at the social board nine days before, when citizens of Anniston and its vicinity marked the seventy-third anniversary of my birth by a reception and banquet at the Inn. The invitation to visit Talladega came from the leading men of the city, and was presented and enforced by Capt. Thos. F. Plowman, chairman of the Democratic Committee of Talladega county. Many of my Anniston friends supported Capt. Plowman's appeal, and though I had declined several complimentary invitations of the kind I was persuaded to accept this one.

The party consisted of Mr. George Noble, Mr. J. D. Kase, of Danville, Pa., and myself. Carriages awaited us at the Talladega station, and we were driven around the city and its environs before proceeding to our respective quarters. The natural beauty of the location is very great; the evidence of wealth, taste, and liberality shown in public buildings and private residences, through the beautiful grounds of some of which we were driven, do much to heighten its beauty. While at tea I was told that my audience would be made up entirely of partisan Democrats. But after entering the building I learned that I would speak to one very intelligent Republican,

the colored janitor of the building. For the edification of those who are eager to know how such an audience would treat my opinions, I may say with truth that I never expressed myself with more freedom, and can add that my Republican auditor described the temper of the occasion by saying that "he did n't know whether Judge Kelley had got the Democrats or the Democrats had got the Judge; but there was no difference between them when he was done speaking."

At the station I had been put in charge of the mayor of the city, Wm. H. Skaggs. This gentleman, who has been mayor since April, 1885, and who is president of a bank and a leading spirit in every local enterprise, is by common consent credited with having created ample water-works, a volunteer fire department of rare efficiency, and with the establishment of common schools, is now just about twenty-seven years of age. Of the school buildings which owe their existence to his efforts I saw but one. It is two stories high, 90 feet deep, and 70 feet wide, and will in its eight rooms accommodate 480 scholars. He disclaimed the desire for an artificial boom for the city, which is the county-seat and the commercial centre of an agricultural population that is rapidly increasing in numbers, intelligence, and prosperity, and referred to guano as the curse of the South, to which she owed much of the poverty of her people and the exhaustion of her soil.

He sees that, located as the city is, in the great brown hematite fields of the Talladega valley, in which are the Ironaton and Jenifer charcoal furnaces of the Clifton Company, that the natural development of the country will force her into the position of an iron-working centre; but his present endeavor is to secure the establishment of

such secondary industries as are required to supply the wants of a prosperous farming community and thus create a market for the incidental but most profitable productions of suburban farms. This interview with Mayor Skaggs was most opportune, as it enabled me to illustrate my argument by reference to local incidents or to the experience of some of my auditors. It being apparent that the speaker and his audience were in sympathy, I held the floor about two hours, and was gratified by the frequency with which I heard subsequent expressions of regret that I had not spoken longer.

I was introduced to the meeting by John B. Knox, Esq., whom I had more than once heard described as the ablest lawyer in Northern Alabama. Soon after the meeting closed I left with Mr. Knox, to whose office we repaired, where we were joined by nearly a score of gentlemen, and in the enjoyment of some of the good things of this world passed nearly two hours in animated conversation. Mr. Knox is still a young man, and among the many surprises I encountered in Alabama was the finding of so extensive and well-chosen a law library as his in the possession of any one of my professional brethren.

As I must leave about noon the next day, an early breakfast awaited a number of gentlemen who proposed to accompany me to the State institutions for the blind and mute, which occupy a magnificent site in the same enclosure. In the latter institution I found in a young constituent, Miss Mary Brown, of West Philadelphia, the honored chief of the department of oral instruction, by which those who have never heard a sound are taught to converse freely. The legislature at its last session appropriated means for establishing separate buildings for the blind in order that both classes of unfortunates may

be more fully provided for. We also visited Talladega College, in the class-rooms of which we found 321 pupils, representing the best elements of the colored population of eight States and twenty-four of the counties of Alabama. This institution is a primary school, a normal school, and a Congregational theological seminary. As neither time nor space will permit me to say what I would like to say of this college, its pupils, and management, I present the following historical sketch taken from its seventeenth annual catalogue :

“ The American Missionary Association began a school in Talladega twenty years ago. In 1867 a large and stately building erected for college use, 1852-3, was purchased, with several acres of land, and a primary school opened that autumn with more than one hundred pupils in attendance. The building is called Swayne Hall, in honor of General Wager Swayne of the Freedmen's Bureau, by whom the purchase was made. In 1868 a church was organized, and in 1869 the corner-stone of a girls' hall, accommodating also the boarding department was laid, and the building named after Rev. L. Foster, of Blue Island, Ill., a principal donor. In 1873, by the gift of Mr. R. R. Graves, of Morristown, N. J., a two-story wooden house and six acres of valuable land were secured for the theological department. Winsted farm, of 160 acres, less than a mile from the college buildings, was bought in 1877, mainly by Connecticut donors. Stone Hall, for the use of young men, built in 1881, is the gift of Mrs. Valeria G. Stone, of Malden, Mass. The same year the other brick halls, Swayne and Foster, were thoroughly repaired, a new house was built for the president, and the following year two other houses, one the gift of Mr. Seth Wadhams, of Chicago, were secured, and are occupied by instructors. In 1883, by the contribution of J. N. Cassedy, of Thiels, N. Y., a two-story school-house was erected for primary and intermediate pupils. In 1884, through aid from the John

F. Slater Fund, a commodious shop was built, so that now, besides two school buildings, a hall for young women, another for young men, and four dwellings for teachers, the college has in lands, barns, and shops valuable appliances for teaching industry. The college is Christian and evangelical, though not sectarian. It is not a 'reform school,' and none but the worthy are tolerated. It aims at thoroughness, and seeks to cultivate the hand, the head, and the heart."

The population of Talladega county is about 25,000, exclusive of the city, which has from 4,000 to 5,000. Her railroad connections traverse great fields of hematite ore, and it is claimed that deposits of magnetic ore, red hematite, and of manganese are easily accessible. It was this county that sent from one of its quarries as its contribution to the Washington Monument a block which was refused, "as it was evidently choice Italian marble," and it may truly be said to abound in marble of almost every color and character. Gold mines are also worked on Talladega creek by Messrs. J. B. Woodward and F. A. Gernoh. But immense as is the mineral wealth of Alabama, her forests and farming lands will prove to be her chief source of wealth. Speaking for the county, the editor of *Our Mountain Home* says:

"But agriculture is one of our chief industries. Its productions take a broad range since we are almost under the tropics, and possess all the soils, black, dark, red, gray, white, and sandy, and every elevation between 500 and 3,000 feet above the level of the sea. Cotton, corn, oats, rye, wheat, sugarcane, the millets, the vines—peas, beans, Irish and sweet potatoes, melons, pumpkins, etc. Clover and the grasses form the principal crops. Rice, barley, broom-corn, tobacco, hemp, flax, and indigo are also grown successfully. Orchard, garden, and wild fruits are bountiful and luscious.

"Almost every tropical flower flourishes here in the open air during at least six months of the year in all their native beauty. The margins of the streams in spring are lined with blossoming and fragrant trees. Our forests in the warm weather are variegated with a thousand different hues. The species are indigenous ; wild flowers are innumerable.

"Old methods of farming are rapidly receding in favor of new modes and appliances. The acreage per horse is being reduced, new implements introduced and several farms in the county are cultivated like gardens. The great advantage of this style over the old are soon apparent in increased yields and superior quality of the crops gathered.

"Orchard or garden fruits are constantly improved or supplanted by those especially adapted to this climate and each particular soil. The best varieties can scarcely be obtained from a foreign nursery since the ones suited to one section are entirely unsuited to another which is under different influences.

"The complete revolution of the farming systems is working a corresponding revolution in other directions. More attention is paid every year to stock raising and the grasses. Fine breeds and grades of horses, cattle, and poultry are frequently seen. Excellent pastures and fields of millet, clover, and the grasses are getting to be prominent features of the plantations of our large farmers."

Thus Talladega enforces the lesson taught by Cedar-town—that the prosperity of the South does not depend on her monopoly of cotton growing or her wondrous mineral deposits, but on the harmonious development of these deposits with all forms of manufacturing industry, and the skillful cultivation of the manifold varieties of crops with which her land responds remuneratively to the labor of intelligent farmers.

But the experience of Rome, Georgia, enforces the

same controlling truth with still greater emphasis. It was in compliance with an invitation from the Board of Trade of Rome to visit that city and address her people in the Opera House that I passed the last three days of April in that most picturesque and thriving city. The determining fact in inducing me to accept this invitation, after having declined so many others, was that it embraced my friend and host, Mr. Samuel Noble, who about seventeen years before, when depressed by a series of local discouragements, had abandoned his interests in the foundry and machine-shop of Noble & Sons, and with General Daniel Tyler gone forth to establish iron works, and, as events have proven, to found in the then scarcely broken forests of Northwestern Alabama a city, the unparalleled prosperity of whose people enhances the grandeur of the monument to each other, whose foundations they then laid.

Unhappily, the condition of Mr. Noble's health prevented him from accompanying me, as he had expected to do. The country around Rome is beautifully undulating, and the three rivers, the Etowah, the Oostanaula, and the Coosa, which is formed by the confluence of the others, flow through bottoms so far below the city level, and at many points so broad and finely wooded with a variety of stately trees, as to greatly increase the picturesqueness of the situation. Though my invitation had come from the Board of Trade, I was personally the guest of Mr. T. F. Howell, whose former business, that of cotton factor, had required him to make frequent visits to important manufacturing towns in Pennsylvania, New York, and New England. He is still a young man, but is an active participant in all public or corporate movements for the advancement of the interests of his city and

State. The three days I passed under his roof showed me that the doors of his city home are always open to his fellow-citizens, many of whom called during my first evening. Among these were two gentlemen of lineage, both of whom are thoroughly well-bred, but evidently regard the New South as an intrusive upstart, who can add nothing to the glory or real prosperity of the historic South. I mention this fact because the evening was spent in animated conversation, and having come early these gentlemen were among the last to leave. We were not far from the home of General Wofford, whose name invoked expressions of respect from all who spoke of him, and I thought it not inappropriate to refer here, in the Etowah valley, to his statement of the recent and accidental addition of clover to Georgia's crops. One of these gentlemen thought he had seen fields of clover before the war, but his appeal for corroboration led to the confirmation of General Wofford's statement. So, too, when I referred to the wretched poverty of the "one gallows farmers," whose year's work results in but one or two \$40 bales of cotton, and to the grotesque establishments by which I had, during the preceding November, seen them bring their crop to market, the same gentleman was sure some evil-disposed person had been practicing upon my credulity. It was, he said, impossible that such people could grow any considerable portion of the South's magnificent crop of cotton. My response was definite but courteous and free from emphasis. My eyes had been my witnesses, and they were not given to such gross deception; and though such poverty-stricken people could not produce a large percentage of the entire crop, they were numerically a very appreciable percentage of the whole number of cotton growers. On the points thus

raised the judgment of the company appeared to be that the unfortunate class of farmers to whom I had referred are not frequently found in the immediate vicinity of cities, in which growing industries enable men to find employment at regular wages, but that in the cotton-raising sections of the country, away from such seats of industrial activity, they are a considerable percentage of the total number of cotton growers.

At the appointed hour on the next evening the Opera House was well filled with an audience representative of Rome's best citizens, among whom I was pleased to see a number of ladies. As Mr. Noble could not appear among his former townsmen as had been expected, the whole evening was before me, and I was not at a loss for topics that would bear elucidation. After paying a just tribute to my friend Noble, who had gone from their midst to found a city more perfect in its primitive appointments, and in arrangements for expansion by the extension of its original plan, than Penn's city on the Delaware had been, I passed to the consideration of industrial questions, by remarking that days spent in unremunerative labor were a waste of human life with all its capabilities and aspirations. This, I said, was the lot of all people whose government failed to secure a wide diversification of employments, by making it the interest of each citizen to strive for profit in the production, from native materials, of that which would satisfy the current wants or gratify the laudable desires of some of his countrymen. This had been the inevitable lot of all the producing classes of the cotton States until the dawn of the New South. The census taken in June, 1880, had ascertained the fact that of the producers of Georgia at that date 72 per cent. were engaged in the same pursuit—

agriculture, which then meant the growing of cotton, and that 77 per cent. of those of Alabama were engaged in the same pursuit. As all were employed in producing the same commodity, there was no opportunity for the profitable exchange of services between the people of these States. But more deplorable, if possible, than this, was, in my judgment, the fact that the crop to which all these people were devoting their land and labor was fibrous, was largely intended for export to foreign markets, and, as it was not consumed as food by man or beast, could make no return to the land, the vital elements of which were absorbed in its growth. I heard no dissent among my auditors from the conclusion that such communities must forego many of the commonest conveniences of civilized life, and sink into ever-deepening shadows of poverty. My reader will see that from such premises a wide range of argument and illustration might be adduced, and will not be surprised to hear that I detained my audience more than two hours.

Thus much for my first impressions of social life in Rome, and the freedom of discussion her citizens tolerate in the consideration of grave questions. But what of the city itself? Rome, Georgia, is a very prosperous city of from 10,000 to 12,000 inhabitants. Its location, on the banks of three rivers, and yet among the hills of a rolling country, is phenomenally picturesque. Broad street, on which its stores and banks, the offices of its insurance, telegraph, express, and other companies are found, and on which the heavy teams belonging to clover- and grain-growing farmers are seen in numbers, is wide and level, though streets not far distant are quite hilly. The present ambition of her citizens is to localize within her limits as many mechanical industries as possible,

especially such as give employment and exceptionally high wages to numbers of skilled workmen. On the morning after my arrival Mr. Howell excused himself from accompanying me, as he had some days before fixed an important conference for nine o'clock. When we met for early dinner I learned from him that the conference had resulted in a contract for the transfer to Rome of all the shops of one of the most extensive iron bridge-building companies of the Northwest. The new site appears to be specially appropriate, as the county was then building bridges across the Etowah, at the foot of Howard and Broad streets, to connect South and East Rome, and the South is famous for the number, length, and tortuosity of its rivers.

Speaking of railroads in this connection I may use the old proverb that "all roads lead to Rome," for I know of no minor city that is connected with so many local centres of trade by means of so many great through lines of road; and her low-pressure steamboats, of which I saw several, traverse nearly eight hundred miles of river. These boats carry large quantities of many kinds of freight. Rome is an historic cotton market and maintains her two compresses, one of which, an 80-inch Morse press, is capable of compressing sixty bales per hour; she has a furniture company, a chair company, and supplies several celebrated plough and tool works and carriage factories with white oak and other woods. Her thirteen jobbing houses handled over \$5,000,000 worth of goods last year, and the business of her retail houses amounted to more than \$4,500,000.

The rates of insurance at Rome, Talladega, and Anniston are proverbially low. This is said to be due to the excellence of their respective water-works and consequent

simplicity of the apparatus relied upon by their volunteer fire departments. Indeed, I heard it said at each place that the saving in insurance rates, and the security given to property by the supply of water and the force with which it is driven from the fire-plug, dispenses with the use of fire-engines, and more than defrays the cost of the works and the hose and reels of the fire department. The pumping capacity of Rome's works is four times the current demand. She has seven miles of mains, 420 services, 73 city fire-plugs, and 7 private ones. The immunity thus guaranteed to life and property is evidently one of the causes of the prosperity and rapid growth of these cities. It is said that the loss by fire in Rome during the last ten years has been less than \$500 per year.

A prominent feature among the industries of Rome is a tannery of large dimensions and more than national repute. The hides it tans are selected by the agents of a Connecticut house in our Eastern markets and shipped to Rome. When tanned they are shipped to New Haven or Hartford to be made into the best quality of leather belting, for which there is a quick demand on both sides of the Atlantic. Another, which is already conferring inestimable local benefits, is the nursery and fruit farm of Mr. G. H. Miller, recently of Ohio. It includes 125 acres, and crowns one of the most beautiful hills in the suburbs of the city. Writing of this enterprise, in April, Mr. Miller said :

"We are confident that we can grow stock here cheaper than in the North. We can grow here in two years stock that will require three years in the shorter seasons of the North. We selected this point because it is an intermediate climate, and stock grown here is not likely to suffer much from the blizzards of the North or hot weather nearer the Gulf. The soil is well

adapted to the purpose. We are planting this year 300,000 fruit trees, 50,000 grape-vines, and 200,000 peach and plum trees, besides ornamental shrubbery. We are also engaged in fruit growing out on the hill-sides. We have put in thirty acres in fruit trees this spring, and will make it one hundred acres. We have ten acres in strawberries, and are now shipping to New York."

The morning of Saturday was delicious, and under the guidance of an intelligent friend I loitered through a number of stores on Broad street, and chatted with their managers. In this busy part of the city are the rooms of the Rome Land and Improvement Company, in which are finely displayed specimens of the minerals found on the roads and rivers upon which Rome's commerce is carried, and a wonderful display it is of ores, and coals, and cokes, of clays and stones, of woods, useful or beautiful, and of minerals, including corundum.

In charge of a committee of bright and energetic men, with Mr. James Noble, the venerable father of my Anniston friend, as my immediate companion, I left this geological and mineralogical museum and visited several objects of interest, including Shorter College for young women, the fine buildings of which surmount an eminence from which a magnificent panorama is seen, and which makes these buildings conspicuous from all quarters of the city. We also inspected the water-works, of which my venerable companion was the inventor and projector, and which, including engines, boilers, etc., from the works of Noble Brothers, at Rome, have been duplicated at Anniston.

In the afternoon we visited the stock and dairy farm of my host, Mr. Howell. It is in the midst of gently rolling fields, and having been made up by selected purchases

from three old-time cotton farms, is nearly all cleared land. To supply this deficiency well-located groves have been set out, and are thriving. It is watered by a spring, from which flow sixty gallons per second of water of crystalline purity. A summer home of ample dimensions but simple construction, the elaborate vegetable and fruit garden to which is the nearest part of the curtilage, crowns a gently sloping eminence, at the foot of which are grouped, at such distance apart as to prevent interference and make inspection easy, the barn, stalls, carriage and wagon houses, poultry walks, and such like appurtenances as are to be seen on the most fully appointed farms in Pennsylvania. The stock upon this beautiful Georgia estate is all choice; but Mr. Howell's pride is evidently his Jersey herd, several head of which he imported directly. It must not be supposed that this is an isolated farm. It is not. It is surrounded by a number, every one of which is an illustration of the magnificent results that certainly follow the practice on Georgia land of the science and art of agriculture. It has been by the conversion of worn-out cotton fields into such farms that Rome has been compensated for the loss of one half of her annual receipts of cotton. Dairy farming, fruit, vegetable, and truck raising in the vicinity of towns like Rome and Talladega, to say nothing of cities of such magnitude and rapid growth as Chattanooga and Birmingham, pay so much better than cotton, that land-owners, to use the words of one of them, "cannot afford to fool away time by growing cotton at eight cents a pound."

I have said that the experience of Rome emphasized this lesson of the value to farmers of diverse non-agricultural industries more emphatically than that of either Talladega or Cedartown, and I propose to prove the assertion. In spite of the mechanical genius with which

Mr. Noble and his six sons were gifted, of their energy, industry, and unity of purpose, and the just celebrity their achievements had given to the workshops of the city, the cotton trade was the overshadowing factor in the business of Rome. It was the one marketable crop of the surrounding country ; it bought in the North food for the laborers who tended the spindles and looms of her factory ; it furnished freight for her boats, whether they came from up or down the river, and for her railroads ; it gave business, profit, and prestige to her bankers and factors, and, as "the borrower is ever the slave of the lender," made them masters of the proud owners of slaves, to whom they made annual advances with which to provide plantation supplies ; it paid rent for those vast sheds that from disuse are now falling into decay, and required for its service the expenditure of the capital invested in two great cotton compresses, the records of the business of which afforded detailed proof that Rome's annual receipts of cotton were greater than those of any other city of the same size. Yet so prosperous have the methods of the New South made her people, that I did not hear a murmur when reference was made to the fact that in the last seven years these receipts have declined fifty per cent. Here are the figures which show the falling off as furnished by Mr. T. L. Robinson, a recognized authority on questions relating to the cotton trade :

	Bales.
1880-81.....	110,000
1881-82.....	83,000
1882-83.....	84,000
1883-84.....	79,000
1884-85.....	63,000
1885-86.....	68,000
1886-87.....	55,000

The increase in the population and prosperity of Nashville, Chattanooga, Birmingham, Anniston, South Pittsburg, Cedartown, Talladega, and Rome has not been fortuitous; nor was the actual loss of population sustained by Mobile, the inappreciable rate of increase of Charleston, and the little more than nominal growth of Savannah and New Orleans during the last decade accidental. All these phenomena occurred in obedience to laws which, though less prompt in action, are as absolute as the law of gravitation. This truth is admirably illustrated by a table showing the number of persons engaged in manufacturing and mining in fifty principal cities, in June, 1880 when the tenth census was taken, together with the proportion in each class of occupation. This table may be studied on page 122 of *Farm and Factory*. Charleston and New Orleans, two of the four cities cited by Mr. Lamar, are embraced in the list. The former had but 25 per cent. and the latter but 24 per cent. engaged in manufacturing and mining, and the average for the 50 cities was 43 per cent. I have made vigorous but unavailing efforts to ascertain what percentage of the people of Mobile and Savannah, the other two, were then engaged in these specified employments, but from the immutability of the law we are considering it is safe to conclude that not more than 15 per cent. of their people were engaged in manufacturing or mining when the tenth census was taken.

With this paper I close my letters on the South. She is in a transitional state. It is idle to dispute or deny the assertion, for the stranger within her borders cannot fail to discover that he moves in the midst of two communities: one of which, animated by hope, is full of impulse, enterprise, and energy, while the other, though the eyes

of its members, like those of their more hopeful brethren, are in their foreheads, look only to the past for inspiration and guidance. These constitute the superannuated South which is fading from the earth, and will soon live, not in habit and custom, but in tradition alone. The "historic glories," which will forever illuminate the history of the South, belong to a past era in which her statesmen lived upon their farms, were thorough-bred agriculturists, and gave their estates the benefit of all that was known of the science and art of agriculture. As political philosophers they led the vanguard of the world. In their wilderness homes they idealized governments which were responsive to the highest aspirations of the patriots and philosophers of their time. When, therefore, Virginia's Washington, in obedience to the call of an insurgent Congress abandoned the personal care of his fields, his implements, his stock, and of his account-books, journals, and correspondence in which his efforts for their improvement are registered, to command an army of undisciplined devotees to chartered freedom, Lafayette, Steuben, and Kosciusko sent, in their names thundering down the ages, proof that the war for the independence of the agricultural colonies of America represented the best hopes and aspirations of France, Germany, and Poland. But this occurred in a distinct though not a remote epoch—the era which Washington, Jefferson, Madison, Marshall, and Henry illustrated, and through which the State of Virginia derived the proud distinction of being called the mother of States and of Presidents. It preceded the invention of the cotton gin and the establishment of the factory system, the baneful influence of which it was that induced the people of the South to substitute cotton growing for agriculture and to look to other regions for supplies of live stock and provisions.

Incalculable as was the infinitely diversified natural wealth of the South, and commanding as was her voice in the councils of the civilized world, she could not resist or modify the disastrous influence of this misguided policy. It constrained her to maintain peculiar institutions, under which labor should be impelled by other stimulants than the hope of profit, of intellectual improvement, or of social advancement, and the isolation of her States and degradation of the great body of her people were unavoidable consequences of this policy. While other States and countries were perfecting and extending their educational systems, and many of them making attendance at school compulsory, she prohibited by degrading penal sanctions the imparting of a knowledge of the rudiments of the English language to millions of her laboring people, and her inadequately endowed institutions of learning were maintained for the benefit of the wealthy few, while the millions of her poor native white citizens sunk into the dangerous mass of servile illiteracy that surrounded them. Tides of invaluable immigrants surged around her borders, peopling States whose political power she dreaded but could not counteract, as the immigrants shrunk from competition or contact with the ignorance and unrequited labor she maintained throughout her borders. In these hard but self-imposed conditions are found the only philosophic reply to the question put to Mr. Lamar: "How do you account for the apparent stagnation in what were formerly the great commercial centres of the South?" For while she was darkening the minds of her laborers and protecting her borders from innovations of every kind, science, art, invention, exploration, and adventure were more busy and persistent than ever before, and the people of other States and countries wel-

came all their triumphs as new sources of intelligence, wealth, and power.

The terrible results of the mistaken policy of the cotton-growing South are visible in every direction. Not only did the population of Mobile and many other Southern cities and towns decline during the last census decade, and Charleston, Savannah, and other places make but inappreciable increase, but all non-agricultural employments seem to have been paralyzed or prohibited. I have in memory a striking illustration of this truth. I have for many years been a member of the Committee on Ways and Means of the National House of Representatives. During the last Congress among my agreeable associates on that committee were one from each of the following five Southern States: Arkansas, Georgia, Kentucky, Tennessee and Texas. As the Ways and Means is the committee which more than any other considers the laws that deal most directly and most potently with the productive industries of the people, and as Mr. Speaker Carlisle had not only selected these gentlemen for this committee, but given them when acting together a controlling voice in its councils, I had the curiosity to study the relation of their respective districts to the nation's industries. Among other tests I applied was to ascertain from the report of the census the percentage found in these districts of the total amount of capital and labor employed in non-agricultural industries. The total amount of capital employed in the United States in June, 1880, was \$2,790,272,606, and the number of laborers was 2,738,895. The amount of capital employed in the five representative Southern districts, from which the controlling influence in the Committee of Ways and Means was drawn, was \$9,090,559, or

an average for each district of less than one-fifteenth of one per cent. of the whole amount, and of laborers the number found was 8,702, averaging to each district a smaller part of one-fifteenth of one per cent. each. When something more than a year ago I worked out this result from the census returns I was incredulous, and doubted the methods I had pursued or the accuracy of my work. I therefore, without mentioning to him my labors and my doubts, handed the official volume containing the elements of the calculation to a statistical expert to make the calculation for me, which he did, and confirmed the accuracy of my work, showing that the five districts combined used less than one-third of one per cent. of the total capital employed in manufactures, and a slightly smaller percentage of one-third of one per cent. of the number of non-agricultural laborers of the country. There are just five Congressional districts in the city of Philadelphia, and it occurred to me to compare the capital and labor employed by these five representative Southern districts with those of the five contiguous Philadelphia districts. The result was that I found the latter employed \$187,148,859 capital and 185,527 operatives, from which it appeared that the five Southern districts employed 4.8 per cent. of Philadelphia's capital and 4.7 per cent. of the number of laborers in the industrial establishments of her five districts. May we not, without the fear of wounding any just susceptibilities, in view of these hard conditions, rejoice audibly over the fact that the gloom and paralysis which have so long overshadowed her no longer pervade the richly endowed, beautiful, and once commanding South.

Wealth and honor are in the pathway of the New South. Her impulses are those which are impelling the advance

of civilization, the progress of wealth and refinement throughout Christendom; and as her resources, including geographical position and climate, are greater and more diversified than those in the possession of any other people of equal numbers, she must at no distant day break from the thralldom of a misguided past, and resume her once proud position in the van of civilization's advancing column. She is the coming El Dorado of American adventure. May the Almighty speed and guide her onward progress.

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