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COTTON AND COMMON SENSE.

A TREATISE

ON

PERENNIAL COTTON;

(GOSSYPIUM ARBOREUM.)

ITS COMMERCIAL VALUE AS COMPARED WITH HERBACEOUS COTTON—THE FEASIBILITY OF ITS CULTURE IN NORTHERN LATITUDES, ETC., ETC.

BY

R. C. KENDALL, ESQ.,

OF MARYLAND.

NEW YORK:
PUBLISHED BY MAPES & LOCKWOOD,
NO. 23 COURTLANDT STREET.
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We have made arrangements to import a quantity of the Cuttings and Seeds of the PERENNIAL COTTON-TREE, under the personal supervision of CAPT. R. C. KENDALL, who will leave during the early part of the coming Spring.

Capt. Kendall will make his selection from the same locality where he procured the Seed successfully grown by him in Maryland.

A small quantity of Perennial Cotton Seed from the northern part of Peru has been left with us for sale, at One Dollar per Paper, containing Five Seeds; sent by Mail, postage paid.

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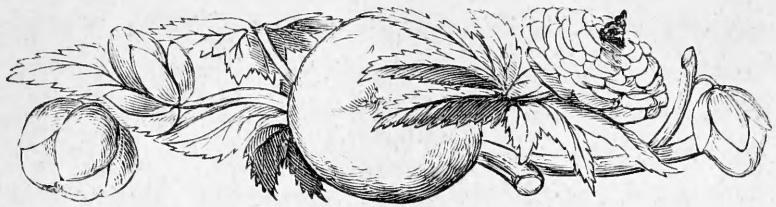

COTTON AND COMMON SENSE.

In the following pages I propose to discuss fairly, and as fully as the allotted space will permit, a subject now beginning to excite interest and inquiry throughout our entire country—viz.: *The production of a good mercantile cotton in large portions of the United States where its cultivation has hitherto been regarded as impracticable.* In my belief the matter is no longer a *question*, but a *certainty*—and one which, without doubt, will become apparent to the public mind as soon as certain measures, now under consideration, shall have been carried into effect.

There is, in the whole vegetable kingdom, probably no other member of the plant family so widely disseminated as the cotton. There is no one of the great divisions of the globe that does not produce cotton. No very extended territory in two of those great divisions to which cotton, either as tree, shrub, or herbaceous plant, is not indigenous. In Europe and America, the cotton limits are more circumscribed than in Asia and Africa, not that the field in which it will grow is narrower in extent, but that nature, in her fostering care for man, found no necessity for wider

distribution of the material when she first planted her world-garden. But once let the necessity arise, and she most kindly steps in to second human efforts, and supply the cotton wants of man in Illinois as well as India, in New England as in New Grenada. It is unreasonable to expect nature to plant and perfect every thing we require, without an effort on our part to assist her. She has most generously given us cotton in as varied form as she has ten thousands of our other requirements, justly expecting us to select and experiment upon and improve her gifts for our own benefit.

In Borneo, and a few other islands of the Indian Ocean, she has planted the gigantic Gossypium growing into a massive tree, enduring for centuries, leaving it to man's ingenuity to discover its commercial value and utilize it. In the Southern States of our own country, nature, at the call of a young nation's necessity, planted the herbaceous cotton, the honor of proclaiming the advent of which is due to Colonel Wade Hampton, of South Carolina. Commercial expediency promptly put forth her fostering hand and led the stranger onward, almost to a throne, from which to dictate terms to the civilized world.

In Egypt, India, China, and thousands of far off corners of the world, nature has planted cotton, leaving it for commerce to distribute it to the world. To some extent commerce has long since answered the call; but until European looms and spindles—nay, even Europe herself, shall have been transferred to the Orient, commerce, in spite of nature's bidding, will nevertheless follow expediency; and this being the case, her glance will continue in all time to come

to be steadily fixed upon the Western World as a source whence to draw the elements of her own prosperity. That in the future this glance shall become general, looking to our whole country, instead of a fraction thereof, as has heretofore been the case, is hourly becoming more and more apparent.

We shall, beyond all question, I believe, ere long supply to the spindles and looms of Europe from two-thirds of all the free territory in the Union, a cotton fully equal to any produced elsewhere, and which we can afford at rates that will effectually silence competition from beyond Capes Horn and Good Hope. But in order to accomplish this desirable end, we must avail ourselves of, and utilize a cotton, radically different in its structure and organization from the herbaceous plant so generally cultivated in the South. This material we have had within the reach of our outstretched hand, any day and always, ever since our earliest existence as a nation.

Scattered all over South America, from the frigid regions of Patagonia to the equator, and from the shores of the Pacific, to the delta of the Orinoco, there is found growing spontaneously a cotton-bearing tree, taking on various habits consequent upon conditions of soil and climate, yielding cotton perennially and enduring without replanting, from ten to sixty years. The nobler—probably the elder branch of this perennial cotton-bearing tree, has been very properly christened the *Gossypium Arboreum*, known to naturalists these thousand years past, and utilized by the ancient Peruvians, centuries anterior to the conquest of their country by the Spaniards.

As some account of my first interview with his venerable cottonship may not be uninteresting in this connection, I extract the following from the report of one of my lectures, published in the *Working Farmer*, of N.Y.:

"Several years ago, while an employé in the Patent Office, I received and accepted a tempting offer from a Chilian gentleman of wealth, Señor Alsogara, to conduct certain matters on his estates. One holiday morning, not very long after my arrival at my temporary South American home, I set out on horseback along the course of a modest little river, called the *Chipura*, and forming the boundary between semi-civilization, and the territory of the *Ypurian* savages. Resolved to explore as much of my patron's domain as the brief May day would allow, I pushed briskly forward over the already frozen ground, covered fetlock deep with newly fallen snow, following the windings of the stream, whose ledgy banks of dark rock, generally thrust back, as it were, by alluvial bottoms from one to three hundred yards distant, indicated that the *Chipura* had one day been a river of ten times its present volume. After a ride of some two hours, in doubling an abrupt turn where the rocks approached very near the water, I came suddenly into full view of an object some two hundred yards distant, which presented the most magnificent spectacle I had ever seen—a perfect cone, or pyramid of pure, brilliant snow, elevated at its base perhaps seven feet from the ground, upon a shaft of whitish bronze; the whole structure cut clear and sharp against the dark wall of rock in the back ground. I had in northern countries, after a calm fall of snow, seen many a white pyramid, having an internal

structure of pine or spruce, but knowing that in the present instance the snow had fallen during a violent gale, and observing that none of the pines about me bore any traces of it upon their branches, I rode forward in semi-bewilderment, to investigate the phenomenon.

"It resolved itself, as I drew near, into a most perfect specimen of the *Gossypium Arboreum*, the perennial cotton-tree. Its foliage had long been shed, but the pods remained, having fully burst, and turned out their spotless samples in almost perfect roses, covering the entire structure with a dense mass of spotless, glossy cotton. I had often seen and examined indifferent specimens of the perennial cotton shrub, but I had never seen any thing even approaching in perfection that solitary tree.

"The remainder of that, and many a saint day thereafter, was devoted to intimate companionship with, and diligent study of the habits, peculiarities, and general economy of the beautiful *solitaire* of the *Chipura*."

Having since made this individual member of the cotton family the subject of careful study and investigation for several years, I shall endeavor to place its merits before the public, being fully impressed with the vast importance of an extended movement looking to its general introduction into the Middle and Northern States of our Union.

In the higher and colder latitudes of South America, on the confines of Patagonia, I found the *Gossypium Arboreum* attaining the dignity of a tree, the average size of the northern peach-tree, growing beautifully symmetrical and very compact, having its seasons, blooming and perfecting its fruit with great uniformity; giving an abundant yield

of long staple, fine-fibred, pure-white cotton, fully equalling the best "sea island" ever grown.

On the Pacific side of the continent, I found the tree growing in the utmost perfection, in the parallel of 40° 10′ south. I also heard from the natives, accounts of its abundant and vigorous growth, fully three degrees farther south; but as I will vouch for nothing that I do not know to be a fact, nor presume to pass my own belief as current truths, I give my Patagonian information as obtained, simply suggesting that an Indian's information is very generally as reliable as that of the white man.

Certain it is, however, that I found the finest specimens of the tree, bearing cotton of the longest staple and whitest, finest fibre, in a region where the snow lies three months out of the twelve; where the vicissitudes of climate are greater than they are in New England; and where not only the natives, but the furred animals, sometimes freeze to death. On the Atlantic side, the Gossypium Arboreum grows spontaneously and entirely hardy, as high as the parallel of 42°. That the tree readily adapts itself to all reasonable and very many unreasonable conditions of soil and climate, is conclusively proven by the fact of my having found it growing bravely at an altitude very nearly approaching the snow-line, on the eastern slope of the Bolivian Andes, in a soil as red with peroxide of iron as a well-burnt brick, and almost as hard. In the Desert of Alcamaya, I found it growing most determinedly in a bed of volcanic scoria, where never a drop of rain falls. In the vicinity of Arica and Tacna, in Peru, it thrives and produces cotton, growing in a waste of arid, burning sand.

In the delta of the Guayaquil, it flourishes in an eternal quagmire; and on the eastern slope of San Gauy it clings to the bare calcareous rock, and lives. Everywhere in the low countries of the tropical regions, both the tree and staple degenerate; the former, in all cases, into a shrub, of from nine to twelve years duration; the latter always into a coarser, shorter, and under many conditions, into a material of no commercial value. In Peru, however, there are a few localities in which the tree-cotton grows spontaneously, giving better results than shown by the general rule in a similar climate. In the valley of the *Chira*, latitude of 3° south, there has been, ever since 1851, an annual produce of perennial cotton, of six thousand bales, of one hundred and fifty pounds each, mostly of spontaneous growth; and any time during the past six years, worth in the port of Paita, whence it is shipped to England, sixteen dollars per hundred pounds—evidence conclusive that it is better than the best Louisiana.

Again, in the parallel of 12° 40′ south, and at an altitude of six thousand eight hundred feet above the sea, there is, at the present time, a miniature plantation of perennial cotton, healthy and vigorous at the age of twenty-eight years, and yielding annually one thousand five hundred pounds of cotton per acre, of a quality fully equal to that grown in the valley of the Chira.

A variety of the *Gossypium Arboreum* is found here and there, throughout the greater part of South and Central America, and also in Mexico, and several of the West India Islands, which, by Linnæus, has been distinctly christened *Gossypium Religiosum*, though the propriety

of that christening, given though it was by the great naturalist, we cannot quite understand; for very certain it is that the variety, being only of climatical necessity, no more entitles the shrub to a distinctive classification, than does the accident of locality and peculiar cultivation of the herbaceous plant entitle it to become the parent of a new race of cotton. In the great majority of instances, the produce of these cotton shrubs, whether within or without the tropics, is quite valueless for spinning purposes, as it lacks length of staple and strength of fibre; hence the time expended upon experiments with plants or seeds of this variety of the *Gossypium Arboreum*, would be uselessly thrown away. Our own opinion is, that in order to produce the perfect, hardy, symmetrical tree, capable of bearing a good quality of cotton, the seeds, or cuttings from which the tree is produced, must come from a region having a soil and climate corresponding to that into which it is to be introduced; thus with the material to propagate from coming from a cold southern latitude, they are of themselves hardy and capable of producing a perfectly hardy tree.

I am fully aware that the almost unanimous verdict of scientific men is opposed to such a theory. They maintain that, under all proper conditions, like produces like; and that the seed of the *Gossypium Arboreum*, bring it from where you will, will inevitably produce just such perfect, vigorous, symmetrical trees as are found growing in a high, cold latitude, provided they are planted in one of corresponding temperature. I am perfectly willing to bow to the supremacy of science; but not quite prepared to en-

dorse all scientific theories, where such endorsement can possibly compromise my own integrity of opinion, or in any manner endanger the popularity of a movement which, being accepted by the public at large, will, I verily believe, forever preclude the possibility of any future difficulty such as now distracts our country.

The declaration that cotton cannot be successfully grown far north of a parallel which has hitherto bounded the herbaceous cotton empire, is wholly unsupported by either fact or philosophy; for as there is nothing strictly tropical in the constitutional structure of any member of the Gossypium family, there can be no legitimate argument adduced why even the common herbaceous plant of the South, its habits having been changed by careful nursing into the hard-wooded shrub, should not be successfully grown at least five degrees further north than it has hitherto been cultivated.

In regard to the cotton-bearing tree, the objections that have heretofore been expressed against the feasibility of its northern growth, are not even founded on prejudice; for in absolute ignorance upon a subject, no such sentiment can exist. They are only thoughtless denials, founded upon nothing; just such denials as were once patent throughout our country, when any innovation upon old-time stand-stillism was suggested. A long time and stubbornly the non-progressive dark-lanterns of our country stoutly opposed the idea of improving our stock by importation of foreign breeds; unqualifiedly denied the possibility of perfecting a good grape in our climate; named all improvements, impossibilities; clinching all de-

clarations, and cutting off discussion, with woman's favorite and unanswerable clincher—"Can't do it, because you can't." Experience in all these matters has long since given a positive negative to all such disclaimers; and just as positively have my own experience and experiments with the tree-cotton, refuted the declaration sometimes made, that *no* good cotton can be successfully grown in a cold climate. True it is, that the demonstration is not, as yet, so universal as to become arbitrary, as in the case of a thousand other improvements; but if an enlightened public be willing to accept truth for truth's self, I have no fears for the result.

Assuming, then, that very good cotton can be successfully and profitably grown in a wide territory of the northern states, let us consider statistically the advantages the northern and middle states may gain by its general introduction.

Firstly: not more than three-fifths of the free states are, at the present time, under cultivation, leaving ample breadth for the production of a world supply of cotton, without in the least interfering with the general economy of agriculture as now practised, producing a crop more remunerative than can possibly be afforded by slave labor in the south. Let us investigate:—

The average yield per acre, taking the whole cotton-bearing region south, is one five-hundred-pound bale per acre. A good field-hand will plant, cultivate, and harvest four acres, making in the aggregate two thousand pounds per hand. This, at ten cents per pound, gives a gross total of $200.

The interest on a good field-hand is	$80 00
Insurance	12 00
Clothing and food	70 00
Medicine, doctor's bills, and loss of time, say	20 00
	$182 00

Leaving a margin of $18 gross, or $4 50 per acre, which is not infrequently more than absorbed by divers incidental expenses, always more inevitable and exorbitant in the South than in the North; thus showing conclusively that cotton-growing *per se*, is not in the South, a remunerative branch of agriculture.

It is very true that there are numerous instances all over the South where a single slave will produce ten and twelve bales of cotton per annum. But these are only exceptions to the general rule.

The *Gossypium Arboreum* once introduced, and having attained its maximum of production, will afford fifteen hundred pounds of clean lint per acre, and an ordinary farm hand can easily attend to, and harvest five acres. Making the standard price ten cents per pound, and we have for the five acres a total of $750. This will be produced at a cost which can be fairly estimated as follows:—

Twelve months' services of one hand, at $12 per month,	$144 00
Year's board, at $10 per month,	120 00
	$264 00

Which being deducted from $750, leaves a balance of $95 20 per acre.

In the above estimate I have considered the interest on

land, cost of culture, and fertilizers, the same both North and South, and also charged the northern crop with a whole year's board and labor, whereas, eight months of each is in reality all that ought to be placed to the debtor side of free cotton account, while the expense of the southern planter in his slave producer, is continuous, whether employed or unemployed, so that in strict justice, full thirty-eight per cent. ought to be placed to the credit side of the northern-grown cotton, over and above the foregoing estimate.

In consideration of the numerous inquiries constantly being made in regard to planting, culture and care of the South American cotton-tree, the necessary instructions may, very properly, be appended here as a conclusion to the foregoing remarks.

As the small sample of seeds now on hand, were sent me from a region of Peru whose low thermometrical range arises from altitude instead of latitudinal necessity, I confess to a doubt of their entire hardiness and capacity to at once produce the fully developed, symmetrical tree, defying frosts, and all the rigors of a severe climate, as in the case of those I found growing on the confines of Patagonia. Hence, I recommend that *these* seeds, if planted during the winter, should be placed in eight-inch pots, filled with woods mold composted with light sandy loam; the seeds placed one inch below the surface, and the pots stood in some place having a uniform temperature of about 60°, until germination occurs, when they should be gradually moved toward a lower temperature. It would be better still, to delay the planting until the first of May, and plant

in the open air; select warm, rich soil, protecting the young trees from the frost of the first winter, by mulching thoroughly about the roots, and covering, as we do our rose-bushes. Having carried them through the first winter, they will, unquestionably, have taken on all the hardy habits of the Chilian tree, and will stand with entire impunity all future vicissitudes.

The seeds of the tree from the higher latitudes of Chili, which I can most fully endorse as capable of producing a tree in any northern climate, quite as hardy as the apple-tree, may be planted either in November or April. I would advise starting them in a nursery precisely as apple-seeds are planted, to be transferred to the field the second year, and there set twelve feet apart each way, cutting back the main shoot, to induce laterals, and always cutting down, in order to have the pods within reach of the hand, for the convenience of gathering. The land thus planted with a cotton orchard, may be every year cropped with any of the cereals, until the trees shall, by their breadth, have occupied the whole surface. All cuttings obtained by such prunings may be turned to good account, by simply thrusting them into the ground, as they will root kindly, and produce cotton at the second year.

Arrangements have already been made with Messrs. Mapes & Lockwood to obtain at an early day, both seeds and cuttings from the coldest regions where the *Gossypium Arboreum* is known to grow, and when it is received, due notice will be given to the public.

In conclusion, I would remark, that when scarcely more than a year ago, I first began publicly to discuss the

possibility of growing a cotton-bearing tree in the free states, it was claimed that *no one else had ever heard of such a thing.* Now the unqualified testimony to its existence and merit is coming in from a thousand directions. One would imagine, from the verbal and written evidence of which I am now in daily receipt, that the perennial cotton-tree ought to have been in general cultivation fifty years since. I am in no way jealous of the knowledge possessed by others in regard to my protégé; but on the contrary, I would that every man and woman in our whole country were as well acquainted with the merits of the *Gossypium Arboreum*, as myself.

From the great number of notices published in public journals in all sections of the country, I select such as are conveniently at hand. R. C. KENDALL.

From the Journal of Commerce.

Perennial Cotton in Cold Climates.

Captain R. C. Kendall, formerly of the United States Coast Survey, is making an earnest effort to interest merchants and agriculturists in the Northern States in the practicability of introducing, for general culture in this part of the country, a species of cotton-growing plant from Peru. He is confident that results of great commercial importance may be anticipated. While engaged, several years ago, on the estate of a gentleman in Chili, Mr. Kendall's attention was directed to a fine specimen of the *Gossypium Arboreum*, or perennial cotton-tree, presenting to the eye "a perfect cone, or pyramid of pure, brilliant snow, elevated at its base perhaps seven feet from the ground, upon a shaft of whitish bronze." The foliage had

been shed, but the pods remained, having fully burst, covering the entire structure with a mass of spotless cotton. In a recent lecture before the New York Farmers' Club, Mr. Kendall remarked as follows:—

"The *Gossypium Arboreum*, or Peruvian cotton-tree, will yet answer the almost universal call for a cotton capaple of being cultivated in northern latitudes. It is perennial, can be grown wherever Indian corn can be matured, and promises to yield larger crops than the present herbaceous cotton of the South, while its requisite culture and mode of manipulation are such as can readily be performed here. I have already proved, by personal experiment, that it can be grown in the northern part of Maryland, and shall most earnestly urge the prosecution of more extended experiments, fully assured that its successful introduction will tend to prevent any future recurrence of difficulties, such as now derange the harmony of the country."

The plant is perfected in its sixth or seventh year, obtaining the size of a common peach-tree, and thrives best in a high latitude. Its product can be prepared for market with great facility, as the seed is attached to the stamen (not distributed through the lint, as in the herbaceous cotton), and is readily shaken off, without ginning. Either seed or cuttings may be used in propagating the plant, and we understand that Mr. Kendall proposes to demonstrate that it is practicable to produce, in the free states, an abundant supply of good cotton. He predicts that "the period is not very remote, when hedges, most efficient as fences, shall yield annual dividends of cotton;

ornamental trees, blending the useful with the beautiful, shall repay tenfold their cost and culture; when the rugged heights of the Hudson, the plains of New Jersey, the fertile valleys of the Keystone State, and the undulating prairies of the Great West, shall gleam in the sun-light, white as the winter drift, with generous pods of Democratic cotton." This is a glowing prospect; but if only part of it shall be realized, the consequences cannot easily be estimated.

From the New York Sun.

Mr. Kendall's Lecture on Cotton.

An intelligent and deeply interested audience listened to Mr. Kendall's lecture on the Peruvian perennial cotton-tree, last evening. The substance of the information he advanced, has been anticipated in our former notices of the subject. He gave a sufficiently discouraging account of the prospects of the British cotton-supply movement, and accounted for the undeveloped condition of the perennial cotton of South America, by the inefficient character of the population, and the inaccessible ruggedness of the country.

ACTUAL CONDITION OF THE PERENNIAL COTTON CULTURE.

But *is* this cotton grown in, and actually exported from Peru? Yes. In territories insignificant in extent, and widely separated by broad belts of intervening desert. Along the borders of unreliable rivers, coursing down the Pacific slope of the coast range, the perennial Peruvian cotton has been precariously produced in small quantities. Between the years 1851 and 1858, there was an average annual yield of cotton from the valley of the *Chira*, of six

thousand bales perennial cotton, weighing one hundred and fifty pounds each, fully six-tenths being of entirely spontaneous growth. That the staple of this Peruvian tree-cotton—even when produced, as it usually is in Peru, without care or culture—is superior to the best upland staple of the cotton states of North America, witness the fact that in the years 1859 and 1860, cotton grown in the valley of the *Chira* sold in the port of Paita, at sixteen dollars per hundred pounds.

WHERE TO RAISE IT.

The study of cotton, in all its economy, for more than half an ordinary life-time, with an actual practical experience in cotton-growing of more than twenty years, has convinced me, beyond the shadow of a doubt, that perennial cotton can be profitably grown in any territory possessing the requisite quality of soil for its natural development, where Indian corn will mature its crop. That is a condition of soil far more indispensable to the successful culture of cotton, than any definite temperature of climate, my own observations and experiments have proved.

Two-thirds of the present free states of the Union, possess this requisite of soil—several of them in an eminent degree—and there is no well-founded reason why they should not afford an unlimited supply of cotton, equalling in quality the best southern staple, and at a clear profit to the producer, of fifty per cent. above the average proceeds from the usual farm crops; and that, too, without materially lessening the breadth of land now devoted to grass and grain, or seriously interfering with the routine of farm economy, as at present conducted.

From the Commercial Advertiser.

A New Source for the Supply of Cotton.

Mr. R. C. Kendall, from Northern Maryland, has called upon us with the important announcement that he has discovered a new source for the supply of cotton. A long conversation with this gentleman, aside from his testimonials, has satisfied us of the genuineness of his discovery—one whose importance at this juncture cannot easily be overrated. Several years ago, while an employé in the Patent Office, Mr. Kendall, who is a northern man by birth, received and accepted a liberal offer made by a Chilian gentleman, and removed to South America. While exploring the country in the region of the Andes, and not far from the fortieth parallel of latitude, he came upon a magnificent cotton-tree, differing in appearance from any plant of the kind that had ever before come under his notice. It was found in the month of May (our November), when the ground was covered with several inches of snow. The elevation of the locality was such that snow usually lay on the ground for three months in the year. At that time the tree had shed its foliage, but the cotton pods remained, having fully burst, and covering the tree with a rich growth of the glossy fibre. Subsequently Mr. K. lighted upon large numbers of the same plant, learned its habits, and undertook its culture. The bolls are usually found twice the size of those borne by the herbaceous plant, with a finer fibre and a longer staple, as it approaches the colder regions. Mr. K. is confident that it can be successfully cultivated on suitable soils in any part of the belt where Indian corn now grows.

Returning to this country some four or five years ago, the discoverer made a verbal statement of the plant at the patent office, where he also left specimens of seeds and cuttings. As is too apt to be the case about "Circumlocution" establishments, no attention was paid to the matter, and Mr. Kendall proceeded to make a trial of the new plant on his farm in northern Maryland. The results of his experiments he communicated to a large number of gentlemen, both south and north, many of whom have since visited him and satisfied themselves, carrying off cuttings to such an extent that he was left with but a small supply. He has also brought the subject to public notice through some of the agricultural journals, among others Mapes' *Working Farmer*.

In its general qualities, the fibre of this plant has been pronounced by cotton brokers equal to the best Sea Island variety. A few bales of it have been sold in one of the South American markets at sixteen dollars per hundred pounds. The quality of this product is not the only point in which it excels, the quantity being twice or three times as great as that ordinarily produced on our southern plantations. Mr. Kendall claims that in certain favorable soils and situations, two thousand pounds can be produced on a single acre, and he claims that half that amount can be depended upon on an average. A bale to the acre (less than five hundred pounds) is held to be a good yield at the South.

Assuming that our informant is strictly trustworthy, and has not been carried away by a temporary excitement—in both of which respects appearances are every way in his

favor—we need only allude to the fact of such a discovery at the present moment as showing its incalculable importance. Cotton, we may fondly hope, will yet be successfully grown on the banks of the Hudson, the Delaware, and the Connecticut, as well as the Tombigbee or the Arkansas. Northern farmers will yet raise their own crops of this "flocculent fibre" as they now do buckwheat or Isabella grapes. Why this glorious perennial should have remained so long in obscurity, can be explained when a thousand other discoveries and inventions just in the nick of time have been accounted for. Mr. Kendall, we learn, will shortly bring the subject before our citizens in a lecture in the Cooper Institute, or elsewhere.

From the New York Herald.

The Growth of Cotton in the North.

A most interesting lecture will be delivered this evening at the Cooper Institute, by Mr. Kendall, on the new discovery that cotton can be successfully raised and profitably cultivated in the states of the North—a fact which becomes highly important in these exciting times, when that saucy southern potentate, King Cotton, is becoming so contumacious and threatening. The lecturer will endeavor to establish the certainty of the points that the Chilian tree-cotton, *Gossypium Arboreum*, can, not only be grown in the North extensively, but that the initial steps toward its culture in localities not very remote from this city, have already been taken. The subject ought to attract universal attention.

From the New York Herald.

"Can cotton grow in the north?" was the subject of an interesting lecture delivered by Mr. R. C. Kendall, of northern Maryland, at the Cooper Institute, last evening. The lecturer said that two-thirds of the free states of the North possessed the requisite soil for the cultivation of cotton, equalling in quality the best southern staple, at a clear profit to the producer of fifty per cent. above the average proceeds from the usual farm crops, and made many interesting statements respecting the raising of cotton in different parts of the globe. Specimens of cotton of his own growing were exhibited by Mr. Kendall at the close of the lecture, which were examined with much interest by scientific and commercial gentlemen present.

From the Evening Post.

Cotton Culture in the West.

Some fair specimens of cotton have been produced in Kansas and Illinois. The Wyandotte (Kansas) *Gazette* states that Mr. Renfroe, a Georgian, has succeeded in raising an experimental crop near Quindaro, and the product is described as follows:

"The stalk stood a little over five feet high, and had on it one hundred and thirty-five bolls, at least one hundred of which Mr. Renfroe assured us were sufficiently matured to make good cotton. He only planted a dozen hills, and has eleven more stalks at home, which he says will average full as good as the one he showed us."

The Chicago *Times* has this account of a similar experiment in Illinois:

"In Nashville, in the southern part of Illinois, considerable quantities have been raised, which have been disposed of at the cotton manufactory of Groll & Deverman, in this city. This cotton is pronounced by competent judges to be equal to a good quality of southern production. The only necessary it lacks is what is known as the staple, but in every other respect it answers all purposes. About two hundred pounds were bought by the above-named firm some two weeks ago, which, as soon as more can be obtained, will be worked up into batting."

From the Evening Express.

Perennial Cotton in Cold Climates.

Captain R. C. Kendall, formerly of the United States Coast Survey, is making an earnest effort to introduce for general culture in this part of the country, a species of cotton-growing plant from Peru, which we noticed the other day. Either seed or cuttings may be used in propagating the plant, and Mr. Kendall proposes in a lecture, Tuesday evening, at the Cooper Institute, to demonstrate that it is practicable to produce, in the free states, an abundant supply of good cotton. He predicts that—"the period is not very remote, when hedges, most efficient as fences, shall yield annual dividends of cotton; ornamental trees blending the useful with the beautiful, shall repay tenfold their cost and culture; when the rugged heights of the Hudson, the plains of New Jersey, the fertile valleys of the Keystone State, and the undulating prairies of the Great West, shall gleam in the sunlight, white as the winter drift, with generous pods of Democratic cotton."

From the Boston Journal.

The Cotton-Tree.

The South American cotton-tree, which Mr. Kendall, of Maryland, is calling public attention to, has been domesticated on his own farm, and he declares that it withstands without injury, the severest winters; it may be propagated from seed, but more readily from cuttings simply thrust into the ground, and it may be planted out as an apple, peach, or pear orchard, in a field cropped with any of the cereals, until, having reached its full growth, the tree should be allowed to occupy the land exclusively. It bears cutting, also, as kindly as any known tree, and in field culture may be kept so pruned that its produce shall be within reach of the hand. The crop in South America has reached two thousand pounds to the acre, whereas the annual cotton plant of the southern states yields but five hundred pounds to the same area. Peru already exports of this cotton about six thousand bales, of one hundred and fifty pounds to the bale. The quality is said to be superior to the best upland staple of our cotton states.

From Hovey's Magazine of Horticulture.

Tree Cotton.

Mr. Kendall, of Maryland, has been describing the cotton-tree of South America (*Gossypium Arboreum*), which he states he discovered in the high regions of South America, and which he says may be cultivated anywhere that Indian corn will mature. He has already tried it in Maryland with perfect success. This is a very important dis-

covery, if what he supposes is true; but we are in some doubts about the hardiness of any South American tree in our New England climate, which is very unlike that of Maryland. Tree cotton is nothing new; but a cotton-tree that will stand our northern winters is. We, however, deem the subject of so much importance, that we hope Mr. Kendall will distribute some of the seed or plants, that a trial may be made. Just now, when the cotton-supply question is so much discussed, and the world is looking to the South for a full stock, the existence of a plant which will yield it in the abundance Mr. Kendall affirms, in our northern states, would be a discovery greater than has ever yet been made. Let the experiment be thoroughly tried.

Growth of Cotton in Pennsylvania.

The Philadelphia *Press* has an article in which the possibility of successfully cultivating cotton in the Middle States is discussed at some length. It is the general opinion that the climate of the Middle States is altogether unfavorable to the growth of this product; yet the *Press* publishes a letter from a well-known gentleman, residing in Brazil, which goes to show that in the table-lands there, where the climate is nearly identical with our own, a species of superior cotton is produced, on plants which flourish year after year, amid frosts that are fatal to vegetation of less hardy character. The writer was formerly a resident of Lancaster county, Pennsylvania, and seeing a paragraph in the *Press*, inviting farmers to try the experiment of growing cotton there, he sent Mr. Forney some seeds of a peculiar kind of cotton growing in Brazil, for distribution

among his friends. Of this cotton he says: "It is cultivated in the province of Minas Geraes, on high land, where they have severe frosts, and cannot grow rice or sugar-cane, but have all the fruits of the Middle States, United States. 'The European grass, *triticum repens*, is entirely killed every year, not the root. There are two kinds of this cotton, white and nankeen, of which I send you the two varieties."

Referring to a certain tree growing from seeds of the latter quality, which had been planted some six years before, he says: "In Pennsylvania this would become an annual. In produces cotton the first year; and I have reason to believe that it will bear the climate of Pennsylvania. There have been here this year some heavy frosts, and the grass referred to is entirely killed; but on this cotton-tree the leaves were still green, and there still remain some flowers." Mr. Forney has distributed the seeds as requested, and the matter will now at least get a fair trial.

EXTRACT FROM A LETTER RECEIVED BY A GENTLEMAN IN THIS CITY, FROM HIS BROTHER-IN-LAW, IN NEW BEDFORD, MASSACHUSETTS.

"Mr. Crosby, formerly of Nantucket, has recently returned from Callao, South America, where he has been many years in business. He expresses his surprise that our government has never done any thing about introducing the cotton-tree into the states; says there are many varieties growing wild there (in Peru); that there are three distinct colors or shades of it at Callao; that they export it from there, the cotton being superior to the best

Orleans cotton, often equalling Sea Island. He says it has not excited much attention there, until within a year or two, but that a wealthy house there is now setting out a plantation of the trees."

I will here take occasion to introduce the opinion entertained by a veteran cotton-planter of Mississippi, in regard to the merit of my protégé, as written by himself, and published a year since in one of the leading commercial papers of the South.

The Peruvian Cotton-Tree.

THE TRUE GOSSYPIUM ARBOREUM OF LINNÆUS.

Grateful in its shade, magnificent in its beauty, and invaluable for its rich and abundant crops.

"Perhaps one of the most striking instances where the utilitarianism of the age, ever ready to grasp the substantial benefits of every hint derived from the votaries of science, has been at fault, is shown in the fact that a cotton-bearing tree, producing annual crops in the greatest abundance, enduring without replanting, through a series of years, yielding a fair crop in the third, and attaining its maximum in the sixth or seventh year of its growth, is now flourishing within two thousand miles of the cotton fields of the United States, in a soil and climate similar to those of the Middle States of this Union, where it has grown neglected for all practical purposes, only claiming the eye of the savage, or occasionally employing his rude industry, from a period anterior perhaps to the far-off times when ancient Greece and Rome paid tribute to the cotton-looms of India.

"We do not allude to the giant *Gossypium* of Borneo, the cultivation of which for commercial purposes would be utterly impracticable, in all latitudes; nor to the stunted perennial shrub common to the desert regions of the Chira valley; but to a legitimate *cotton-tree*, hardy in its habits, annual in its yield, excellent in its staple, and generous in its production; now blooming in the wilds of Peru, Bolivia and Chili.

"The attention of the cotton-growing and manufacturing world having been lately attracted toward Peru, as a country well adapted to the production of cotton, some slight notices of this tree have found their way into the public journals, and various claims have already been set up by different parties, claiming the merit of its discovery. But we know that long anterior to any of these supposed discoveries, our Mr. Kendall, having been called by his profession, to those remote regions, first noticed the tree; and having carefully studied its habits, and familiarized himself with its economy, thus assuring himself of its entire adaptability to our soil, and to a climate much colder than ours in the cotton states, brought with him on his return, not only samples of the staple, which were pronounced by competent judges to be fully equal to any, and superior to most United States grown cotton, but also a small parcel of seed, which he distributed to different parties. These persons, doubtful of the result, opposed to progress, or more probably totally oblivious of the fact that they had these seeds in possession, never committed them to the ground. Two other parcels intended for distribution, were unfortunately lost, as will be seen by a late

article in the Southern *Field and Fireside.* So that the only experiment really made, was by Mr. Kendall himself, with a few seeds, the result of which proves most conclusively that the Peruvian perennial, or tree-cotton, can be successfully produced as far north as the parallel of 40° at least."