

3. *Correspondence of Eli Whitney relative to the Invention of the Cotton Gin.*

[For the following contribution the REVIEW is indebted to Dr. M. B. Hammond, of the University of Illinois, author of a monograph on the *Cotton Industry in the United States*, soon to be published by the American Economic Association, and to Eli Whitney, Esq., of New Haven.]

THE story of the invention of the cotton gin by Eli Whitney, of Massachusetts, while he was a guest of the family of General Nathaniel Greene, at their residence near Savannah, Georgia, has long been one of the historic traditions familiar even to school children. But circumstances have arisen within recent years which make it desirable to recall the old story of the invention, and to examine its claim to a place in the history of the industrial development of the nation.

In the recent literature of the cotton industry, especially that contributed by Southern writers, there have appeared numerous references and assertions which show plainly that there is a growing conviction at the South, either that Eli Whitney was not the real inventor of the saw gin, or that his gin became practicable as an instrument for cleaning the green seed cotton, only when supplied with subsequent improvements by other inventors, or, at any rate, that Whitney was aided in the construction of his machine by suggestions derived from witnessing the efforts and partial successes of other experimenters. Instead, therefore, of the cotton gin being an original product of Whitney's brain, it was, say these writers, only the successful combination of the discoveries and experiments of equally brilliant but less fortunate artisans who had wrestled with the same problem.

In support of their statements these writers have usually given a more or less full and plausible account of what they believe to be the true origin of the cotton gin, and of the perversion of history by which Whitney secured the honor which entirely or partly belonged to another.

I have no wish to charge with insincerity any of these persons who either through published writings or through personal correspondence have set forth the claims of those whom they believe to be justly entitled to the credit of having given to the world this great invention. The respectability of these gentlemen, and the manner of their writing, are indisputable witnesses of their candor in this matter. And, indeed, their stories are only in line with the theory of invention which will be found to be the true explanation of the majority of the great discoveries in the arts and sciences.¹

¹ See Brentano, *Ueber die Ursachen der heutigen socialen Noth*, pp. 7 ff.; Hobson, *The Evolution of Modern Capitalism*, p. 58.

That Southern men conscious of the needs and existent difficulties in the way of separating cotton from its seeds, should have made efforts and even important contributions toward solving this problem, rather than have left the whole problem to be worked out by a stranger who "had never seen cotton or cotton seed in his life," is only what, in the ordinary course of events, we should have expected; and anything which tends to confirm our expectations in this matter is a sufficient excuse for calling in question the verdict of history, and for attempting to ascertain whether the story of the invention in the little shop on the Savannah be not, after all, only a historical myth.

When Whitney went South in 1793, the subject of cotton ginning had already been much agitated in the Southern States. The green seed or short staple cotton had just begun to be cultivated for the market in the upper parts of South Carolina and Georgia, and, provided that an easy method of cleaning it could be devised, its cultivation gave promise of much success. In the tide-water region of the South from Delaware to Georgia small crops of cotton of a black seed variety¹ had been raised for domestic use almost since the first settlement of the country. Shortly after the close of the Revolution the long staple, sea-island cotton had been introduced into the United States from the Bahamas and was successfully cultivated in the southern part of this region, especially in Georgia.

The work of separating the seeds from the lint of the cotton was at first done by hand. But this was a very tedious and unprofitable undertaking. Whitney says that he had never seen anyone who claimed that he could clean as much as one pound a day in this way. In Williamsburg County, South Carolina, it was the custom in 1790 to require each field laborer and his family to clean four pounds of lint cotton per week in addition to their ordinary work. "This would amount to one bale in two years."²

Attempts had been made quite early to devise a machine for the ginning of cotton. There had been introduced from India, where it had been in use for centuries, the *churka*, a simple hand-mill having two wooden rollers, grooved longitudinally, mounted on upright posts and, by means of a crank or treadle, made to revolve in opposite directions. This machine was used in cleaning the black seed cottons and performed its work in a very imperfect manner. Modifications of the *churka* had also been attempted. M. Dubreuil, a planter in the French territory of Louisiana, had devised a gin in

¹ Seabrook, *Memoir on the Origin, Cultivation and Uses of Cotton*, 15.

² Handy, *History and General Statistics of Cotton*, in *The Cotton Plant*, Bulletin 33, Office of Experiment Stations, U. S. Dept. of Agric. (1896), p. 38; H. Hammond, *Handbook of South Carolina*, p. 11.

1742 which was so successful that it had a noticeable effect in increasing the production of cotton in that province.¹ Thirty years later Mr. Crebs, of West Florida, brought out a gin resembling the *churka*.² This was introduced into South Carolina in 1776 and into Georgia two years later. In 1778 Kinsey Burden, of South Carolina, devised a roller gin, and in 1788 Mr. Bisset, of Georgia, invented one by means of which a boy or girl could clean five pounds of long staple cotton in a day.

Ginning machines seem also to have been in use in some of the cities where cotton was marketed, and in the first factories for the manufacture of cotton goods which were established at the close of the Revolution. Richard Leake, a Georgia planter, wrote to Thomas Proctor, of Philadelphia, in 1788, that he had heard of gins in use in Philadelphia "that will clean 30 to 40 pounds clean cotton in a day and upon very simple construction."³ A Charleston correspondent of Carey's *American Museum*⁴ writes under date of July 1, 1790, that: "A gentleman of great mechanical knowledge, instructed in most of the branches of cotton manufacture in Europe, has already fixed, completed and now at work on the High Hills of Santee, near Statesburgh, and which go by water, jennings, carding and slabbing machines, also spinning machines with eighty-four spindles each, and several other useful improvements for manufacturing every necessary article in cotton, which is planted in considerable quantities, and grows to perfection and profit in that neighborhood." An ancient ginning machine dating even anterior to 1790, and which is said to have possessed "all the essentials of a modern cotton gin," was exhibited at the Atlanta Exposition of 1881, but nothing concerning its history could be ascertained, except that it came from the neighborhood of Statesburg.⁵

But whatever success these primitive machines may have had in cleaning the sea-island cotton or that grown in the tide-water region prior to the Revolution, they proved inadequate to the task of ginning the green seed cotton of the upper country. In 1790 Dr. Joseph Eve, of Augusta, Georgia, made great improvements in the roller gin and adapted it to be run by horse or water power. "It was claimed that his gin would detach the seed from short staple cotton; but it appears not to have succeeded in doing this."⁶

It is quite possible that other mechanics may have endeavored to solve the problem of cotton ginning and that they may have at-

¹ Bishop, *History of American Manufactures*, I. 351.

² *Ibid.*, pp. 352-3.

³ Quoted by Handy, *op. cit.*, pp. 35, 36.

⁴ Vol. VIII., Appendix IV., p. 11.

⁵ Handy, *op. cit.*, p. 38.

⁶ H. Hammond, *Hand-book of South Carolina*, 38.

tained a partial success. A commission had been appointed by the state of Georgia to encourage such efforts,¹ but there is no evidence that it succeeded, or that any entirely successful attempt to produce a machine which would gin the short staple cotton had been made prior to the invention of the saw gin in the spring of 1793.

Among the claims to the invention of the saw gin which have been made in behalf of other persons than Whitney, perhaps the most widely circulated, although certainly the least plausible, is that which has been put forth in behalf of Mrs. Greene, Whitney's hostess and patron. It is said that this lady, being a woman of great mechanical ingenuity and much interested in the problem of how to clean the short staple cotton, either made or caused to be made a machine which should accomplish this purpose. Being a modest woman, however, she shrank from the connection of her name with the invention, and she therefore begged of Mr. Eli Whitney, the school-teacher and law-student, then a resident of her household, that he would assume the responsibility of having originated the design of the machine. To this Whitney readily consented, and soon after secured a patent in his own name, and thus obtained the honor of having given to the world this great invention.²

A more plausible argument than the above is that advanced in favor of Hogden Holmes, of Hamburg, South Carolina. By some persons it has been claimed that Holmes was the real inventor of the cotton gin and that Whitney stole the idea from him; while by others the priority of Whitney's invention is conceded, but the claim is advanced in behalf of Holmes that he was the first person to make use of saws for cleaning the cotton and that this improvement more than anything else contributed to make the gin a practical success.³

What gives countenance to this claim, especially as it relates to the use of saws, is the fact that a patent was issued to Holmes for an "Improvement in the Cotton Gin," by the United States Patent Office, on May 12, 1796. The letters patent are still in existence.⁴ The Holmes machine was set up in the grist mill of Captain James Kincaid, on Mill Creek, in Craven (now Fairfield) County, South Carolina, in 1795, and is reported to have been the first of the saw

¹ D. A. Tompkins, *Cotton and its Uses*, in the *Manufacturers' Record*, Nov. 1, 1895. Supplement, p. 1.

² This is substantially the version of the story put forth by a writer in Annie Nathan Meyer's *Women's Work in America* (N. Y., 1891), but practically the same story has been oftentimes repeated.

³ D. A. Tompkins, *Cotton and Its Uses*, in the *Manufacturer's Record*, Nov. 1, 1895.

⁴ The original parchment copy is in the possession of the South Carolina State Historical Society, Charleston.

gins used in that state.¹ It is from Mr. Thomas Anderson, of Long Run, Fairfield County, South Carolina, a great-grandson of Captain Kincaid, that we have the clearest account of the extreme claim made in behalf of Holmes. Mr. Anderson derived his information from accounts of the affair related to him by his grandmother and grand-aunt, daughters of Captain Kincaid. Mr. Anderson's account, as given in a personal letter to the writer,² is that :

"The cotton gin was first designed by one Hodgson Holmes, a Scotchman living at a place called Hamburg, opposite Augusta, Ga., on the Carolina side. It is reported that Holmes' original intention was for his implement to be a wool burrow, he having been the owner of a carpenter shop at which such a machine could easily be constructed. Eli Whitney, of Connecticut, being both a carpenter and schoolmaster by trade, when out of employment as the latter would sometimes work with Holmes and meddled so suspiciously with Holmes' machine that he was finally discharged. Now Hamburg was the northern limit of navigation on the Savannah and my grandfather did his trading there largely. Being himself of Scotch descent, an intimate acquaintance naturally sprang up between Holmes and him. Holmes had not the means of testing the merit of his invention, and requested Capt. Kincaid, who possessed the necessary water power, to take the machine to his place in order to test it. The experiment proved it to be successful as a cotton gin.

"Whitney followed at some subsequent period. He came to my great-grandfather's residence during the absence of the latter and requested Mrs. Kincaid to see the curious machine Captain Kincaid was reported to have had. She readily assented and gave him the keys, which he duly returned and left immediately. . . . Whitney is supposed to have left immediately for the North and in a short time was famous as being the inventor of the cotton gin. . . . This machine (the Holmes gin) was frequently pointed out to me by old servants as well as reliable white gentlemen as being the first and only one of its kind. It was a very crude elementary machine. It was very small ; there were only four ribs to the brush ; there were saws, as in the improved machine—all entirely hand-made—everything wood, except the gudgeons or bearings which were inserted in wooden shafts ; there were cogs, also a pulley, if I remember rightly. . . . This gin was burnt with my gin house by Sherman in 1865, with all papers and effects belonging to it, together with everything valuable on the place except the dwelling. Possibly some of the records were preserved by being carried off. There is no doubt in my mind that Holmes is the actual inventor of the cotton gin and the honor given to Whitney is due merely to his stealing the patent ; since no personal motive could have induced my family to

¹ Seabrook, *Origin, Cultivation and Uses of Cotton*, p. 17 ; *Handbook of South Carolina*, p. 11. These authorities, however, supposed the gin on Mill Creek to have been one of the Whitney patent gins.

² Dated Long Run, S. C., Jan. 17, 1895.

invent this story. No credit could possibly have accrued to them, since Holmes himself was the sole inventor.”¹

Analogous to the claim made for Holmes of having been the first person to make use of saws for cleaning cotton, is the claim put forth on behalf of Col. O. A. Bull, of LaGrange, Georgia, who is also said to have been the first to engraft this improvement on the Whitney gin.²

Still another claimant for the honor of having invented the cotton gin has been put forth under the name of Joseph Watkins, of Petersburg, Elbert County, Georgia. Mr. Hugh N. Starnes, now horticulturist of the Georgia Experiment Station, Experiment, Georgia, has stated in a printed article³ that Joseph Watkins, a wealthy planter living in Petersburg, then a thriving tobacco market, on the upper Savannah, had originated, constructed and had in operation a gin for cleaning the short staple cotton. Shortly after Mr. Whitney began working on his own machine, says Mr. Starnes, he learned of the Watkins machine and made a journey to see it. He found that it “corresponded almost identically to his own conception.”⁴ But in one respect it was an improvement; it was provided with a brush cylinder for sweeping away the particles of cotton. Carefully noting all the important points in the machine, Whitney returned to Mulberry Grove and constructed his own machine. Thus, continues Mr. Starnes, “Eli Whitney, while none the less the legitimate inventor of the cotton gin, as he had already developed independently in his mind its essential features, and though undoubtedly its improver and introducer, was neither its first inventor, constructor nor operator.”⁵

In the article from which the above is quoted Mr. Starnes expressed a willingness to substantiate, on demand, all that he had therein stated concerning Joseph Watkins.⁶ Acting upon this suggestion, I communicated with him, requesting the authority for his statements, and received a cordial reply,⁷ from which the following is an extract:

¹ Mrs. R. B. Boyleston, a granddaughter of Hogden Holmes, gives an account of the invention similar to that given by Mr. Anderson, but gives the location of the gin and the place of the supposed Whitney visit, as Augusta or Hamburg. Letter of G. H. M'Master, of Winnsboro', S. C., to the writer, dated February 20, 1896. W. D. Aiken of Princeton, N. J., a great-grandson of Holmes, relates the same story as told by Mrs. Boyleston, but adds “I know not how true (it is).” Letter of W. D. Aiken to the writer, dated Princeton, N. J., January 27, 1896.

² D. A. Tompkins, *Cotton and Its Uses*, in *Manufacturers' Record*, Nov. 1, 1895; *Handbook of South Carolina*, 593.

³ *Southern Bivouac*, n. s., I. 385-395.

⁴ *Ibid.*, 390.

⁵ *Ibid.*, 390.

⁶ *Ibid.*

⁷ Dated Experiment, Ga., Feb. 14, 1896.

"The information which I received in regard to the gin invented by Joseph Watkins, of Elbert Co., Ga., was received from Col. T. C. Howard, of the Ga. State Dept. of Agriculture, some ten years ago. He gave me a copy of some paper in which the entire details of Watkins' invention and Whitney's visit to him at Petersburg, Ga., about 1794, were detailed—upon what authority I have now forgotten, though at the time I was, as I stated in the *Southern Bivouac*, prepared to produce the proof. There were at that time living certain men whose fathers had known Watkins personally, and could speak 'ex cathedra.' Like Col. Howard himself, they are now probably all deceased. If I had thought that the subject would ever come up again I would have taken pains to have put it permanently on record.

"In the article you refer to in the *So. Bivouac*, it is stated that Watkins was frequently urged to contest Whitney's right to his patent, but, being a wealthy planter, money was no object to him and hence he always declined. The newspaper article referred to contained a partial or rather general description of Watkins' machine, but I cannot now recall the details.

"I do not think, however, that there can be any doubt but that Watkins invented a gin independently of Whitney, and probably before him, or that from this machine Whitney adapted many improvements which he grafted on his own, after his visit to Watkins at Petersburg. Still, as Whitney was the first to put the machine to a practical use and to launch it permanently into existence, he is undoubtedly entitled to the credit of the invention.

"I regret that I cannot give you any more definite information than this. You have sprung the subject on me exactly ten years too late."

While still engaged in investigating these various claims to priority in the invention of the cotton gin, I learned that a grandson of Eli Whitney, who also bears the name of his distinguished ancestor, was living in New Haven, Conn. A correspondence with him resulted in his loaning me a large number of his grandfather's letters and papers. With the exception of extracts from two or three of the least important of these, published by Prof. Olmsted in his *Memoir of Eli Whitney, Esq.*,¹ these letters have never been made public. An examination of these soon convinced me that the verdict of history, which had credited Eli Whitney with the invention of the saw gin, could not now be set aside; and that the claims put forth in behalf of the above-mentioned persons, either to the whole or a part of the invention, were without any real foundation. Believing that the publication of these letters would aid in settling this controversy, I solicited and obtained permission of Mr. Whitney to publish such of the letters as bore directly on the invention of the

¹First published in 1832 in the *American Journal of Science*, reprinted as a pamphlet in 1846.

cotton gin. But before giving the letters themselves, a word or two regarding the above-mentioned claims to this great discovery may not be amiss.

The claim made in behalf of Mrs. Greene is so puerile that it scarcely deserves notice. No evidence of any kind, so far as I know, has ever been brought forward in support of this claim. The entire pretension seems to rest on a little incident connected with Whitney's work on the gin. The inventor, it seems, had encountered a difficulty in the fact that the cotton lint after having been disengaged from the seed adhered to the teeth of the cylinder and impeded the work of the machine. He was greatly perplexed to know how to overcome this difficulty, when Mrs. Greene, who had been a witness to his fruitless efforts to disengage the cotton from the teeth of the cylinder, picked up the hearth-brush and laughingly remarked, "Why don't you use this?" Acting on this suggestion, Whitney returned to his work and added a second cylinder, studded with stiff bristles, revolving contiguous to, but in an opposite direction from, the other cylinder. This served to sweep the particles of cotton away as they were ginned and made the gin a practical success.¹ Valuable as this suggestion may have been to Whitney, it does not require a very discerning mind to distinguish between the importance of this suggestion and that of the invention itself.

The Holmes affair is thoroughly exposed in the following letters, as, indeed, it was in the federal courts in Georgia in 1807 and later.² The claim of Holmes himself does not seem to have been for the entire gin, but only for the supposed improvement of saws. But if anything more than the following letters is required to disprove this claim made for both Holmes and Bull, it may be found in the original specifications of Whitney's gin. Among the Whitney papers is a manuscript copy of the original specifications, dated and certified to before a notary public in New Haven, on October 28, 1793. In these specifications, Whitney, after describing the method of making and attaching the wire teeth, adds a foot-note as follows: "This is the method in which I have usually made the teeth. They may be made with flat rings made fast to the cylinder and teeth cut in the out edge of these rings like those of common ratchet wheels. Teeth set in right lines like a number

¹ Sketch of Eli Whitney, by William Scarborough, Esq., in the *Southern Agriculturist*, August, 1832.

² Whitney vs. Carter. See *Fessenden on Patents* (edition of 1810), pp. 122 ff. See also Whitney vs. Fort, and Whitney vs. Carter in Olmsted, *Memoir of Eli Whitney, Esq.*, pp. 39-46.

of saws put into one frame will likewise (on the same principle) produce the same effect ; but it is not so eligible a mode."

The Watkins claim appears at first sight more serious. It has already been mentioned that it was quite probable that Southern mechanics had worked on the problem of the cotton gin before Whitney went South, and not impossible that some of them may have obtained a partial success. Perhaps the Watkins gin may have been an example of this latter class.¹ It must be plain to every one, however, that something more than a mere newspaper statement is necessary for the building up of such claims as are advanced by Mr. Starnes. The eager demand for a cotton gin which caused the people to break into Whitney's shop and carry off his machine does not give support to the supposition that a previous invention which performed the work of cleaning the short staple cotton in a satisfactory manner would have remained unheard of. Mr. Starnes' explanation for this, "the isolated location of Mr. Watkins, his great distance from the coast, and the difficulty of communication at that time,"² is entirely inadequate. The upper country was the region where the short staple cotton was cultivated, and where the demand for the gin arose.

The gentlemen whose conversation first gave Whitney the idea of inventing the cotton gin were from the upper country in the neighborhood of Augusta,³ not a great distance from Petersburg, and it seems hardly possible that they should have failed to hear of a gin already in successful operation in their own country.

The part of the story which refers to Whitney's visit to Watkins, and to his adopting from the latter's gin several improvements which he engrafted on his own, is of course entirely mythical, and it is needless to say that this defect discounts to a considerable extent the value of the remainder of the story. Whitney, during the construction of his machine, never left Mulberry Grove, except to visit Savannah for the purpose of securing materials for his work and cotton in the seed for his experiments. How he obtained the idea of the brush cylinder, which Mr. Starnes asserts to have been borrowed from Watkins' machine, we have already mentioned.

In transcribing the following letters, I have endeavored to preserve the punctuation, the use of capitals and the spelling, which is often lame, exactly as in the original manuscripts. Where omis-

¹ Inquiries which I have made in Elbert Co., and LaGrange, Ga., with reference to Watkins and Bull have failed to elicit any information concerning them. A patent for an "Improvement in Ginning Cotton" was issued to one Robert Wadkins in 1796. Perhaps this, by a slight confusion of names, may have formed the foundation for the story concerning Joseph Watkins.

² *Southern Bivouac*, n. s., I. 390.

³ Olmsted, *Memoir of Eli Whitney, Esq.*, p. 13.

sions of words are due to the carelessness of the writer, I have made no attempt to supply the deficiencies. Where the omissions are the result of illegibility, or the torn condition of the letters, I have endeavored to supply such words as are required by the sense of the communication. All such additions are enclosed in brackets. Without further comment, therefore, than merely hoping that the appended correspondence may, in addition to settling the question at issue, be found to throw some light on the social and economic conditions of the South a century ago, the letters themselves are now for the first time submitted to the public.

M. B. HAMMOND.

I. ELI WHITNEY TO ELI WHITNEY, SEN'R.¹

NEW HAVEN, Sept. 11th, 1793.

Dear Parent,

I received your letter of the 16th of August with peculiar satisfaction and delight. It gave me no small pleasure to hear of your health and was very happy to be informed that your health and that of the family has been so good since I saw you. I have fortunately just heard from you by Mr. Robinson who says you were well when he left Westboro. When I wrote you last I expected to have been able to come to Westboro' sooner than I now fear will be in my power. I presume, sir, you are desirous to hear how I have spent my time since I left College. This I conceive you have a right to know and that it is my duty to inform you and should have done it before this time; but I thought I could do it better by verbal communication than by writing, and expecting to see you soon, I omitted it. As I now have a safe and direct opportunity to send by Mr. Robinson, I will give you a summary account of my southern expedition.

I went from N. York with the family of the late Major General Greene to Georgia. I went immediately with the family to their Plantation about twelve miles from Savannah with an expectation of spending four or five days and then proceed into Carolina to take the school as I have mentioned in former letters. During this time I heard much said of the extreme difficulty of ginning Cotton, that is, separating it from its seeds. There were a number of very respectable Gentlemen at Mrs. Greene's who all agreed that if a machine could be invented which would clean the cotton with expedition, it would be a great thing both to the Country and to the inventor. I involuntarily happened to be thinking on the subject and struck out a plan of a Machine in my mind, which I communicated to Miller, (who is agent to the Executors of Genl. Greene and resides in the family, a man of respectability and property) he was pleased with the Plan and said if I would pursue it and try an experiment to see if it would answer, he would be at the whole expense, I should loose nothing but my time, and if I succeeded we would share the profits.

¹ No cover. Sent by the hand of Mr. Robinson, of Westborough, Massachusetts.

Previous to this I found I was like to be disappointed in my school, that is, instead of a hundred, I found I could get only fifty Guineas a year. I however held the refusal of the school untill I tried some experiments. In about ten Days I made a little model, for which I was offered, if I would give up all right and title to it, a Hundred Guineas. I concluded to relinquish my school and turn my attention to perfecting the Machine. I made one before I came away which required the labor of one man to turn it and with which one man will clean ten times as much cotton as he can in any other way before known and also cleanse it much better than in the usual mode.¹ This machine may be turned by water or with a horse, with the greatest ease, and one man and a horse will do more than fifty men with the old machines. It makes the labor fifty times less, without throwing any class of People out of business.

I returned to the Northward for the purpose of having a machine made on a large scale and obtaining a Patent for the invention. I went to Philadelphia soon after I arrived, made myself acquainted with the steps necessary to obtain a Patent, took several of the steps and the Secretary of State Mr. Jefferson agreed to send the Patent to me as soon it could be made out—so that I apprehended no difficulty in obtaining the Patent—Since I have been here I have employed several workmen in making machines and as soon as my business is such that I can leave it a few days, I shall come to Westboro'. I think it is probable I shall go to Philadelphia again before I come to Westboro', and when I do come I shall be able to stay but few days. I am certain I can obtain a patent in England. As soon as I have got a Patent in America I shall go with the machine which I am now making, to Georgia, where I shall stay a few weeks to see it at work. From thence I expect to go to England, where I shall probably continue two or three years. How advantageous this business will eventually prove to me, I cannot say. It is generally said by those who know anything about it, that I shall make a Fortune by it. I have no expectation that I shall make an independent fortune by it, but think I had better pursue it than any other business into which I can enter. Something which cannot be foreseen may frustrate my expectations and defeat my Plan; but I am now so sure of success that ten thousand dollars, if I saw the money counted out to me, would not tempt me to give up my right and relinquish the object. I wish you, sir, not to show this letter nor communicate anything of its contents to any body except My Brothers and Sister, *enjoining* it on them to keep the whole a *profound secret*.

Mr. Robinson came into town yesterday and goes out tomorrow, this has been such a bustling time that I have not had opportunity to say six words to him. I have told him nothing of my business—perhaps he will hear something about it from some body else in town. But only two

¹ In a letter to Jefferson, dated Nov. 24, 1793, Whitney stated that with this machine "it is the stated task of one negro to clean fifty weight (I mean fifty pounds after it is seperated from the seed), of the green seed cotton per day." Olmsted, *Memoir of Eli Whitney, Esq.*, p. 17.

or three of my friends know what I am about tho' there are many surmises in town—if Mr. Robinson says anything about it, you can tell him I wrote you concerning it, but wished not to have it mentioned. I have been considerably out of health since I wrote you last; but now feel tolerably well. I should write to my Brothers and Sister but fear I shall not have time—hope they will accept my good wishes for their happiness and excuse me.

With respects to Mama¹ I am,
kind Parent, your most obt. Son

ELI WHITNEY, Junr.

Mr. Eli Whitney.

II. ELI WHITNEY TO ELI WHITNEY, SEN'R.²

NEW HAVEN, August 17th 1794.

Hon'd Sir,—

It gives me pleasure that I have it in my power to inform you that I am in perfect health. I left Savannah just three weeks ago. We had a passage of Eight Days to New York, where I spent several days and have been here about a week. I was taken sick with the Georgia fever about the middle of June and confined to my bed ten or twelve days, but had got quite well before I left the Country. There were several very hot Days preceeding my sickness during which I fatigued myself considerable and which was probably the cause of my illness.

My Machinery was in operation before I came from Georgia. It answers the purpose well, and is likely to succeed beyond our expectations. My greatest apprehensions at present are, that we shall not be able to get machines made as fast as we shall want them. We have now Eight Hundred Thousand weight of Cotton on hand and the next crop will begin to come in very soon. It will require Machines enough to clean 5 or 6 thousand wt. of clean cotton pr Day to satisfy the demand for next Year. I mean for the crop which comes in this fall. And I expect the crop will be double another year.

Within a few weeks a number of persons (I believe about twenty) have died, in this place with a putrid fever it appears to be very contagious and has excited very considerable apprehensions especially in the country. There are various opinions about the disorder—Many suppose it to be the same that was in Philadelphia last summer. It appears pretty certain that the disorder was imported from the W. Indies where it is very prevailant. There are but very few sick at present and if the weather should continue cool I think it will wholly disappear in a few days.

I am going to N. York this week, where I hope not to be detained long, from thence I expect to return here again. My next journey will be to Westboro' where I hope to meet you in happy circumstances. My

¹ Eli Whitney's step-mother. His own mother died while he was still a young lad.

² Cover addressed "Mr. Eli Whitney, Westborough, near Worcester, Massachusetts."
Postage 12 ½ cents.

respects to Mama. I wish to be affectionately remembered to my
 Brothers and Sister and [subscribe] myself your most
 Obt. and Dutiful Son

ELI WHITNEY, Junr.

Mr. E. Whitney.

III. ELI WHITNEY TO ELI WHITNEY, SEN'R.¹

NEW HAVEN, March 22^d, 1795.

Honor^d Sir,

I wrote you from New York but a few Days since at which time I was quite out of health. My health is not yet restored entirely but I am on the mending hand, and hope in a few days to be quite recovered.

I mentioned in my last letter that my business was in a prosperous train and that no disaster had befallen me. But alas, how is the scene changed! When I returned here from N. York I found my property all in ashes!—My shop, all my tools, material and work equal to twenty finished cotton machines all gone. The manner in which it took fire is altogether unaccountable. It caught fire when the workmen were gone to breakfast. The shop was swept as clean as any dwelling house the evening before, there was not a hatcrown full of fire in both chimneys, and not a bucket full of chips or shavings in all the building. The hearths were swept the last thing before the shop was left. The most probable conjecture that I can make is that it took from the broom. From the account I have collected since my return, I am convinced that it was not more than ten or fifteen minutes at most after the workmen left the shop before they returned and found the shop so completely on fire that it was impossible to save the least article out of it. It burned with amazing violence and it was with difficulty that the new building which I set up last fall was saved.

You probably have seen some account of my misfortune in the News Paper where the Damage is estimated at three thousand Dollars, but I would very freely pay ten thousand Dollars, if I had the money, to have it restored. Indeed, three thousand pounds would by no means make good my loss.

For more than two years I have spared no pains nor exertion to systematise and arrange my business in a proper manner. This object I had just accomplished. It was the purchase of many a toilsome Day and sleepless night. But my prospects are all blasted, and my labor lost.

I do not, however, despair and hope I shall not sink under my misfortunes. I shall reestablish the business as soon as possible, but [it will] be a long time before I can [repair] my loss. My Respects to Mama and love to all my friends.

from your affectionate Son ELI WHITNEY, Jur.

Mr. E. Whitney.

¹ Cover addressed "Mr. Eli Whitney, Westborough, Massachusetts." Postage 12½ cents.

IV. ELI WHITNEY TO PHINEAS MILLER.¹

NEW HAVEN, Decem 25th, 1795.

Dear Miller,

Yours of the 27 inst has come to hand, and I am very happy hear of your safe arrival in Georgia. I am also very glad our certificates are likely to answer in a Valuable purpose.

The cotton which the English Manufacturers complain of, must have been *naturally* bad. The little knots which you mention as being made by the load or quantity carried thro' by each several tooth, are the imperfect seeds which are in the Cotton before it is put into the Machine. They are knots which *nature* has made and not the Gin. And I will bet every farthing I am worth that this same Cotton which they complained of would not have been so valuable by 50 pr. Cent. if it had been Ginned with Rollers. So that these knots will finally, when the truth comes to be known, make our Machine much the more valuable. For you know our last machines take the most of them out. You will always find the Cotton which Contains these knots, short, and of an imperfect growth.

Out of the five hundred Wt. of Cotton, of our cleaning, which has been manufactured by our manufacturers here, one Hundred Wt. was very full of these knots, and they complained of it very much; but were never so stupid as to suppose that these knots were made by the Machine in Cleaning. Since I rec'd yours I have mentioned this circumstance to Buel and Mackintosh. They say there was never anything more absurd, that it is totally impossible the Machine should produce these knots. I think you will be able to convince the *candid* that this is quite a mistaken notion and them that *will not believe* may be damn'd.

I have just been to New London and settled off the business of the David and Jot.² The charter party amounted to 260 Dolls. The wages and other expenses to about as much more. Dickinson is a Damn'd Villian and it seems everybody in New London knew it except Capt. Harris. I made Dickinson pay for ten Galls. of the rum which he drank during the Voyage and had charged to the Vessel—struck out of his account six or Eight Dollars more and settled with him. He is likely to pay dearly for abusing the Boy who went out in the sloop. There is an action commenced against him by the Boy's father. Dickinson has offered forty Dlls to settle it and avoid a trial.

I supposed the Premium for the insurance was paid before I went to New London, so that I did not go prepared to settle it. I called on Mr. Parkin, however, and told him I would see that it was settled, shortly. So much for *Navigation*. Money is growing extremely scarece in this State, ten times so much so as when you was here. Speculation is at a stand, just at present. It is a conceded Maxim, that it altogether uncertain whether a Land Speculator is worth anything or not. And the

¹ Cover addressed "Phineas Miller, Esq., Mulberry Grove near Savannah, Georgia. *Mail Augusta*. Sav^a. forw^d. 9 febr forw^d." Postage 25 cents.

² A sailing vessel in which Miller had sent seed cotton to his partner at the North; probably named David and Jonathan.

Money-lenders are very shy of a man who is concerned in the business. Jos. L. Wooster for instance, (who I believe is worth more money than when he engaged in speculation) cannot hire money so low by six pr. Cent pr. Ann. as he could before he engaged in speculation, and it makes that difference in getting his note discounted. It is my candid opinion that I could not now borrow money for carrying on our business here, so readily nor [on such favorable] terms as if you had never been [concerned] in speculation.

Our business here progresses tolerably well. We are beginning to have [plenty] of materials on hand. I think I shall make another shipment of Machines in February and one in March. My Brother is come to undertake the care of our business. I go to N. York soon. After my return I shall set about the exemplifying Models. I wish you to inform me when the suit will come to trial and of the manouvers of our enemies. I have had several pressing applications from the proprietors of the Connecticut Cotton manufactory for one of our machines to pass all their cotton through, in lieu of beating, and have promised to make them one as soon as business will permit.

Your friend and partner,

ELI WHITNEY.

N. B. My love to my Brother and inform him our friends in Massachusetts are all in usual health, and regards to all other friends.

V. PHINEAS MILLER TO ELI WHITNEY.¹

MULBERRY GROVE Feb. 15th, 1797.

Dear Whitney,

The mystery of your silence is unravelled and I am much rejoiced—during my absence to the upper country your letters of 17 and 27 Nov. the 15 and 20th of Dec. and the 6th Jan. came to hand. Not one of these reached here until the latter part of January the letters by Bontacee had carelessly been retained by the person who brought them.

Your advice respecting the mistake most probably committed by the Rhode Island Factory is agreeable. My anxieties on this subject are kept awake by the large sum we have at stake. You are almost surprised that my confidence should be shaken the people here are surprised that it should not be entirely destroyed.

I think your advice good respecting keeping a supply of cotton at New Haven and New York. I have only been prevented from pinching necessities doing this heretofore and shall proceed as much as my funds will possibly admit this winter. I have indeed endeavored to extend my credit to the purchase of 40 or 50 m weight of cotton at the low price at which it is to be had at present—viz \$3.50 and for cash \$3 per hundred. I have also set on foot in common with Mr. Rupel a traffic over the mountains to the distance of three hundred miles by land, which I think will enable us to vend a few thousand weight of cotton very profitably.

¹ Cover addressed "Eli Whitney, Esq. New Haven, Connecticut." Postage 14 cents.

Fortunate have we been in one instance among so small a number of misfortunes in saving our cotton and samples of cotton at New York. The repeated disappointments which have yet prevented your departure for England have become so frequent that they almost cease to create surprise, and yet the evil arising from the detention is by no means diminished. I really think that it will not be best that Nightingale should engage with us until some change in our affairs can be brought about. We require at present his assistance and I should wish to make him the most liberal recompense without subjecting him to our misfortunes, in addition to his own.

It will be best to take the deposition of Goodrich and Stebbins on the subject of ratchet wheels which may hereafter be rendered useful. I fear it cannot be had in time for our Court which will sit the last of April. The name of the Patentee for the surreptitious Patent I think is Robert Homes.¹ The names of our Defendants, *Kennedy and Parker* and Edward Lyons. I expected you would have procured and sent on the copy of the Patent which was to be set aside. I shall now write for it myself. The order which was given to Adams for the saw mill Crank was sufficiently correct. I find by his letter that he understood it exactly as was intended—but the difficulty arose from my omitting to explain the mode of our applying these Cranks which did not appear to me necessary. It is now too late to make them—others are procured.

With best wishes for your early departure and with the regards of our family I am truly your friend

PHINS. MILLER.

VI. PHINEAS MILLER TO ELI WHITNEY.²

MULBERRY GROVE, May 11th 1797.

Dear Whitney,

To day for the first time Mr. Miller appears decidedly to be recovering from a confinement of nearly a month past. This affords a relief to my mind which enables me to sit down for the purpose of detailing to you the present situation of our ginning concern.

A constant attendance during every day of the Courts Session, without having been absent one night from home, had quite worn down my patience and health. I felt a few days of quiet perfectly indispensable to my restoration, which having obtained I feel myself once more in usual spirits.

The event of the first Patent suit after all our exertions made in such a variety of ways has gone against us. The preposterous custom of trying civil causes of this intricacy and magnitude by a common Jury together with the imperfection of the Patent law frustrated all our views and disappointed expectations which had become very sanguine.

We had the Judge with a Party to dine with us twice before the trial came on and got him fully prepared to enter into the merits of the case.

¹ This refers to Hogden Holmes, whose patent for "Improvement on Cotton Gin" was issued May 12, 1796.

² Cover lacking. Letter probably enclosed with the one following.

We had also got the tide of popular opinion running in our favor and many decided friends who adhered firmly to our cause and interest. Added to all this we got the trial brought on, against every measure they could devise for postponement and found them perfectly unprepared as to a knowledge of the strong grounds of their cause and without a single evidence in their favor. We were on the contrary pretty well prepared and neglected no means to become as much so as possible. An instance of our exertion in this respect I will just mention to you. It happened during the trial that a Paper was required to fix the amount of damages which had been left at this place among my other papers. The necessity for this paper appearing very great, Mr. Nightingale immediately mounted my best horse, in the middle of a very hot day came to this place, examined my chest, draws, &c., and after a search of nearly half an hour, laid his hand on the paper, remounted his horse, on his way back met a fresh horse I had sent for his relief; and returned to the Court house in just two hours and forty minutes from the time he had left it—the paper came in time to procure admittance to the evidence we had brought, it being an agreement with Peter Robinson and was necessary to support the testimony of W. Shubert of Waynesborough. So that we had the cause well supported, and brought as much within the law as the nature of the trespass would possibly admit. The judge gave a charge most pointedly in our favor, after which the Defendant himself told an acquaintance of his, that he would give two thousand dollars to be free from the verdict—and yet the jury gave it against us after a consultation of about an hour. And having made this verdict general, no appeal would lie, on Monday morning when the judgment was rendered we applied for a new trial but the judge refused it to us inasmuch as that the Jury might have made up their opinion on the defect of the law which states an aggression to consist of *making devising* and using, or selling, and we could only charge the defendants with using. In a private conversation had with the Judge afterwards, he told me that we could have no hope of protecting our Patent rights without an alteration of the law, which he had no doubt but Congress would make for us; on application. Thus after four years of assiduous labour fatigue and difficulty are we again set afloat by a new and most unexpected obstacle. Our hopes of success are now removed to a period still more distant than before, while our expenses are realized beyond all power of controversy. The actual crisis has now arrived which I have long mentioned as possible, and sometimes almost or indeed quite apprehended as probable. This crisis is our insolvency as a Partnership. At the present time I have no idea that any person would chance our engagements to have the whole benefit of our patent, with all the property of which we have possessed ourselves under it. In this unfortunate dilemma I am however far from despairing, or being in bad spirits, since I do not consider the acquirement of property as the greatest blessing or the loss of it as the greatest misfortune which we can experience. I am even willing to make the same unremitted exertions to our mutual benefit, and still to pursue the fleeting prospect. The honor-

any engagement which Mr. Nightingale¹ considers himself to have made for the [Junction] of our interests will induce him still to connect himself with our affairs in such a manner as would be more favourable than we could otherwise command. The severe indisposition of Mrs. Miller which has produced so much anxiety and confinement from me has hitherto prevented our fixing the terms of agreement but we shall now shortly set about it. Without such an agreement it will be quite impossible for us to proceed one step further in our concerns. For we have no possible resources to meet the demands which stand against us but from the proceeds of Nightingales and my speculation, and this cannot be diverted from his and my private engagements without a junction of his interest to justify such diversion.

Never indeed was the application of money rendered more distressful than it has been to the support of our unfortunate business. You recollect that the small sum which our necessities compelled me to take from the Estate of Gen. Greene I frequently mentioned the necessity of having returned in the course of the present winter. In this necessity I was not mistaken. My last letter from our Creditors in Charleston which was received some time ago, I enclose to you that you may perceive the exact situation of his claim and that we have very little chance of lenity. At the time when this money was taken for our use, I was under the necessity of acquainting Mr. Rutledge that we would certainly indemnify the Estate for any injury it might sustain in consequence of this diversion of its funds. Then you see our difficulties accumulating on every side in consequence of our repeated and continued disappointments and our prospects of success still keeping at a distance—and hence you will perceive a rational source to have existed for the despondency which you have sometimes seen me disposed to feel as respects the Copartnership concerns. If the greatest of our difficulties that of the bad reputation of our cotton could be but once removed, we could however still hold up our heads against the lawless state in which we have the misfortune to carry on our concerns as well as against the enemies of every kind who have conspired our ruin.

The acquirement of money from the speculating concerns of N. and myself would also greatly assist us, in one or other of these resources I will still rest our anchor of hope.

The family all join me in most affectionate regards to you and kind remembrances to your brother.

Your friend and Partner,

PHIS. MILLER.

¹ Nightingale was a son-in-law of Mrs. Miller (Mrs. Greene). He was a man of property who had speculated largely in Yazoo lands as had also Miller himself. Financial support was expected of Nightingale by Miller and Whitney, but just as he was about to embark in the enterprise his affairs became so embarrassed that he was obliged to give up all hope of helping the firm. Oimsted, *Memoir of Eli Whitney*, p. 24.

VII. PHINEAS MILLER TO ELI WHITNEY.¹

MULBERRY GROVE May 12th.

Dear Whitney,

I wrote you a short detail of our affairs yesterday. I have concluded as this letter will go by water to New York to send you some part of the statements made to our counsel. My principal communications to them were however verbal. I had also prepared myself to speak on the cause and had obtained the consent of the Judge to address the Jury, but at the time it appeared inexpedient, for the trial took up the whole day till five o'clock in the afternoon, and as the Audience, the Jury and Judge himself appeared quite exhausted and to stand much more in need of a dinner than of elaborate arguments I recollected Goldsmith's character of Edmund Burke, "who went on refining, and thought of convincing, while they thought of dining." So I kept my speech to myself and left the case to stand by its merits which appeared to be decidedly in our favour. But we have had great reason in this as well as our other affairs to moralize on the uncertainty of all *sublunary things*, a truth which is not very difficult to perceive without the faithinspiring eyes of a christian. I would not however apply it to the comparative advantages of a future life, nor to recommend for your consolation the prospect of an advantageous compromise by being admitted sole cotton ginner to any of the departments of old Pluto, but simply to recommend that we take the affairs of this world patiently, and that the little dust which we may stir up about cotton may after all not make much difference with our successors one hundred, much less one thousand years hence.

Mr. Nightingale purposes to leave this for some parts of the Northern States in about four weeks, when we shall make our decampment for the summer. But the place where we shall erect our barrack or pitch our tent still remains suspended by the opinion of the French directory, whose decision respecting the molestation of our sea coast we have not yet learned. I am very truly

Ever your friend and partner

PHINS. MILLER.

VIII. PHINEAS MILLER TO ELI WHITNEY.²

WHITMARSH July 21st, 1797.

Dear Whitney,

I have just received your favor of the 25th Ultimo and am very happy to find that the evidences of the quality of our cotton still continue to accumulate upon you. For I have been so long and so continually placed in the very vortex of error and prejudice, of complaint and abuse respecting our unfortunate cotton gins, that some new evidence against a suspicion of insanity would seem requisite, to enable me to stand thus alone in opposition to public opinion. The instances you quote in favor

¹ Cover addressed "Eli Whitney, Esqr. New Haven, Connecticut." 2½ oz. Postage 104 cents.

² Cover addressed "Eli Whitney, Esq. New Haven Connecticut. Sava. 21. July." Postage 25 cents.

of the operation of the Gins seem pertinent and convincing. How great! very great would have been our acquirements could this opinion have been universal. I am much pleased that the few bags of cotton I sent you seem so well approved. They consisted of the tale of cotton which I had not money to purchase. The quality of this cotton was partly the common green seed of the country partly the *Nankeen* or [*Per-nambuco*] cotton and a small quantity of black seed intermixed. Nightingale has some few bags of the same quantity with him, and some which has come from the upper country with the quality of which I am unacquainted. It was received by Capt. Toole for the Nott, and of course N. will be obliged to pay Josiah out of the proceeds.

The engagement which I mentioned to you of my Classmate Goodrich¹ is simply this. That when he shall have concluded the business of Mr. Nightingale for which he went into the upper part of this state—He is to proceed to Knoxville where we were informed that Cotton was saleable and make such enquiries as appeared to him the most judicious on the subject. From whence he was to proceed to Nashville and the Cumberland Settlements, and make himself acquainted with their culture of cotton and mode of cleaning it, and of the prospect of success which would attend an attempt to sell our machines there. From thence he was to proceed to Kentucky on the same business and then return by the back parts of Virginia for the purpose of looking for an inland market for the consumption of cotton of our ginning. If he should meet with any encouragement in these pursuits we shall come into some agreement for his future exertion in our business but if not he is to lose his time and we his traveling expences.

Mrs. M. joins in best regards to yourself and brother, with
Your friend and partner,

P. MILLER.

IX. PHINEAS MILLER TO ELI WHITNEY.²

WHITMARSH, Sept. 28th, '97.

Dear Whitney,

It is now a very long time since I have had the pleasure of hear from you excepting by the letters of Mr. Nightingale. I know very well from much experience that embarrassments debts duns and difficulties present obstacles of the most unpleasant kind to the practice of writing. But I have endeavored to reconcile myself to bear and forbear under the pressure of these evils. It is to be sure a mighty reverse of fortune that we have experienced, and after all our precautions we seem likely to present another example to the discouragement to the use or Patronage of genius in mechanics. A small ground of hope is still left however for our perseverance. If our pride could be made to condescend to make

¹ Russell Goodrich, who subsequently became agent and attorney for Miller and Whitney.

² Cover addressed "Eli Whitney, Esq. New Haven Connecticut." Postage 14 cents.

terms with that ignorant low fellow Lyons, and to submit to be shuffled about by the whims of the populace I do not know but it might operate to our pecuniary advantage. They continue to clean great quantities of cotton with Lyon's Gin and sell it advantageously, while the Patent ginned cotton is run down as good for nothing. My best friends have actually advised me to make use of Lyon's improvement as they *universally* term it, in order to avoid any injury to the staple. Indeed there is so large a portion of the world who are either knaves or fools, that honest and virtuous men are sometimes obliged to move on without assistance in the amount which they give to human affairs. With respect to money and expectations on that subject I am just as formerly, borrowing for current expences without any prospect of making payment excepting by the proceeds of the property of the Estate which I think must suffer heavily under the diversion of its funds which I have already made, in the constantly expected sacrifice of the Carolina estate. I do not even know why it has not been 10% at question.

Pray write me on the subject of my late communication, and also furnish the statements of our accounts. I have a man employed at high wages to bring up them, and other accounts, whom I mean to discharge the instant this is done, and I should be sorry to wait for yours, which we must do within a fortnight from this time, for the Accounts cannot be balanced with any propriety while blanks remain to be filled up. I hear nothing of my bargain with N. Mrs. M. joins in affectionate regards and best respects to your brother with

Your friend and Partner, PHIS. MILLER.

N. B. In taking the titles to the Place which I received on the Partnership account from Durkee, I have as yet let them stand in my name, specifying in my books that they were held in trust, on account of making a legal reconveyance should it be required.

X. ELI WHITNEY TO PHINEAS MILLER.¹

NEW HAVEN Oct. 7th, 1797.

Dear Miller,

The extreme embarrassments which have been for a long time accumulating upon me are now become so great that it will be impossible for me to struggle against them many days longer. It has required my utmost exertions to *exist* without making the least progress in our business. I have labored hard against the strong current of Disappointments which has been threatening to carry us down the Cataract of distruction, but I have laboured with a shattered oar, and struggled in vain unless some speedy relief is obtained. I am now quite far enough advanced to think seriously of settling in life.² I have ever looked forward with pleasure to a connection with an amiable and virtuous companion of the other sex.

¹ Cover addressed to "Phineas Miller, Esq. Savannah, Georgia." Postage 25 cents.

² Whitney at the time of this writing was thirty-two years of age. He did not marry until 1817.

It is a source from whence I have expected one day or other to Derive much satisfaction and rational enjoyment. I would not be understood that I have or have ever had any *particular* person in view. Pointed attachments of this kind I have studiously avoided, because I have never been in circumstances that would allow me to enter into such a connection. The situation of our affairs for three or four years past has been such as made it necessary that I should hold myself in readiness free from any embarrassment, to go into foreign Countries for the promotion of our mutual interests. You have yourself several times expressed to me your apprehensions that I should get married and by that means be prevented from prosecuting our business in the way which appeared most advantageous. The accomplishment of my tour to Europe and the realization of something which I can call my own appears to be absolutely necessary, before it will be admissible for me to *even think* of matrimony. Three years have already elapsed since the former of these was to have been begun and in that case it would have been finished before this time. There is a greater prospect that it will be delayed three years longer than there was at that time that it would be delayed till now. Probably a year and a half at least will be required to perform that Tour after it is entered upon. Life is but short at best and six or seven years out of the midst of it is to him who makes it, an immense sacrifice. My most unremitted attention has been devoted to our business. I have sacrificed to it other objects from which, before this time, I certainly might have realized 20 or 30 Thousand Dollars. My whole and sole prospects have entered in it, with an expectation that I should ere this time have realized something from it. You and Nightingale have formed happy and amiable connections. You have estates, separate from this to which you can look for support. And tho' you are under some temporary embarrassments you are enjoying life. You have devoted no inconsiderable part of your attention to other business since ours was undertaken. After all these considerations, can you think it strange that I should be desirous of realizing something, or at least of making such arrangements in the disposition of a part of our concern to Nightingale as will enable me to realize something by and by?¹ Can you be surprised if I am unwilling to put our business on such a footing as shall oblige me to pay my whole attention to it for seven years to come without a prospect of realizing anything from it till the expiration of that time? Of what value is property to me without any prospect of enjoying it? It is better not to live than to live as I have for the last three years past. Toil anxiety and disappointment have broken me down. My situation makes me perfectly miserable. Yet my ideas of the utility of the invention and the emoluments of our business (if rightly pursued) are not in the least abated.

¹ Whitney's desire was that on a sale of a part of the interest of the firm of Miller and Whitney he himself should retain a portion of the proceeds of such sale as his private property. "The involved state of the company concerns was such that Mr. Miller would not consent." Olmsted, *Memoir of Eli Whitney, Esq.*, p. 26.

You may perhaps conclude from what I have said above that I am in a foolish tease to get married, but you can readily conceive that a person who has no idea of marrying immediately, might be very unwilling to enter into obligations or put it out of his power ever to marry. If this letter should appear incoherent and foolish my circumstances will be some apology for me. I address it to you as a friend and a man of candor. I am willing to do anything in my power to promote your happiness at the sametime I cannot be indifferent to my own. I am too much confused and perplexed to write any particulars of our concerns. Arrangements with Nightingale remain just as they were when he left you. Instead of his helping me to money I have been obliged to let him have some tho' it was a mere trifle but ten Dollars is more to me than 300 was two years ago. I had rather be out of Debt and out of business without a shilling than be in a situation half so much embarrassed as my present one. I could write another sheet but it would add to your expences without giving you any satisfaction. With best regards to Mrs. Miller and wishing that we may all see happier Days I am

Your friend and partner,

ELI WHITNEY.

XI. ELI WHITNEY TO JOSIAH STEBBINS.¹

COLUMBIA S. CAROLINA

Dcem 20th 1801.

Dear Stebbins,

I have been at this place little more than two weeks attending the Legislature. They closed their sessions at 10 oClock last evening. A few hours previous to their breaking up they voted fifty thousand Dollars to purchase my patent right to the Machine for Cleaning Cotton, 20 Thousand of which is to be paid in hand and the remainder in three annual payments of 10 thousand Dollars each. This is selling the right at a great sacrifice. If a regular course of Law had been pursued, from two to three hundred thousand Dollars would undoubtedly have been recovered. The use of the machine here is amazingly extensive and the value of it beyond all calculation. It may without exaggeration be said to have raised the value of seven eights of all the three Southern States from 50 to 100 pr. Cent. We get but a song for it, in comparison with the worth of the thing, but it is securing something. It will enable M and W to pay all their Debts and divide something between them. It established a precedent which will be valuable as it respects our collections in other States and I think there is now a fair prospect that I shall in the event realize property enough from the invention to render me comfortable and in some measure independent. Tho' my stay here has been short I have become acquainted with a considerable part of the Legislature and most distinguished characters in the State.

¹ Cover addressed "Josiah Stebbins Esquire, Post Master, New Milford, Maine Dist. Massachusetts." Postage 25 cents. Josiah Stebbins, subsequently Judge Stebbins of Maine, was a classmate of Whitney's in Yale College, and a life-long friend of the inventor.

Our old school mate H. D. Ward is one of the Senate. He ranks among the first of his age in point of talents and respectability. Is married, has a handsome property and practice in his profession. He has shown me much polite attention as have also many other of the Citizens. I wish I had time to write you more frequently and more lengthily. I go to Georgia for which place I shall start tomorrow. With best regards to Laura I am &c

ELI WHITNEY.

J. Stebbins Esq.

XII. ELI WHITNEY TO CHARLES COTESWORTH PINCKNEY.¹

RALEIGH NO. CAROLINA Decmr. 8th, 1802.

Sir,

I have been this moment informed by the Honourable Mr. Rutledge that some of the citizens of South Carolina are dissatisfied with regard the purchase of our Patent right to the saw Gin, by that State. Feeling a conscious rectitude on my part in everything which relates to the whole transaction from beginning to end, it is with extreme regret and mortification that I am by any one accused with any omission or neglect. I understand from Mr. Rutledge it is alledged that we have not delivered according to agreement the two models refunded such monies and obligations as we or our agents had recd. for Licenses to use machines. It will be observed that by the act of the Legislature Relative to the purchase no time is mentioned in which these stipulations are to be performed. It was my understand thro' the whole negotiations at Columbia and I supposed it to have be the understanding of the Legislature that we should refund said monies and obligations to those individuals of whom we received them, and I had no expectation of any other mode till I went to Charleston, some weeks after the sitting of the Assembly for the purpose of delivering our title deed to the comptroller. I had been informed by Mr. Miller and by our agent Mr. Goodrich, that two Hundred Dollars which had been received from yourself, was all the cash which had been recd. from any citizen or citizens of So. Carolina for any license. This money it was my intention to have repaid to you immediately on the receipt of my first payment from the Comptroller. But when I came to converse with the Comptroller it appeared that it was his understanding that the sd. monies and obligations were to be delivered over to him for the use of the state and he required of me an obligation that they should be delivered to him by the first of September next ensuing, and which Mr. Miller pledged himself to me he would do and it ought to have been performed and is a neglect of duty on the part of Mr. Miller, and we are bound to make good any injury which this neglect may have occasioned. As to the Models I believe it has been the understanding of the Gentle-

¹ This letter is from a copy in Eli Whitney's handwriting of a letter sent by Whitney to Pinckney by post. Whitney was introduced to General Pinckney by letter furnished him by Gov. Oliver Wolcott of Connecticut on the occasion of his visit to South Carolina for the purpose of selling his patent right to that State. Pinckney seems to have aided him somewhat in accomplishing this purpose.

men at the time, that I should furnish them as soon as my previous engagements would allow me an opportunity to make them. It was proposed that I should engage to deliver them previous to the [next] session of your legislature. I declined stipulating to furnish them at so early a period observing it was doubtful whether it would be in my power to perform it, that I was desirous those models should be constructed in the best manner, and contain some improvements which have never yet come into general use; that in this case I should have no other alternative but to make the models myself, there being now no machine in existence after which I could employ workmen to copy; that by a previous undertaking I was pledged to the government of the United States and could not consent to engage to do a thing which I might not have it my power to perform. Mr. Hamilton, the Comptroller will I presume recollect this to be the import of a conversation which passed between him and myself at the time we engaged to deliver to him the monies and obligations which we had recd. from individuals and that from these considerations I declined engaging to deliver the Models within the time in which the other stipulation was to be performed, and it will be observed that the engagements which I have entered into with the Comptroller does not require the Models to be delivered at the same time the monies are to be refunded. I always have intended and do still intend to improve the earliest possible opportunity to compleat these models in the best manner of which I am capable and I shall undoubtedly have it in my power to do it and deliver them before another session of the Legislature. If I could have purchased them for money at any price that should have been furnished before this time. I might perhaps have furnish models which would have exonerated me from this part of the contract, not to have furnished the best which I conceive could be made I apprehend would have been improper. I have certainly been actuated by the best of motives and if I have done wrong I must say I am not sensible wherein.

Permit me to ask the favor that you would speak to the Comptroller on the subject and name the circumstances to any Gentlemen who may feel any dissatisfaction. I would come to Columbia before the rising of your Legislature if it were possible, but it will not be in my power. By the Direction of the Secy. [of War] I go from this in a few days to the site fixed upon by the General Government for the establishment of a manufactory of arms upon the Cataba River in your State. This armoury is to be erected by and carried on at the expense of the U. States. The object of my visit to that place is only to advise with Coln S[?] as to taking out the water, locating the buildings &c. I shall not be there more than a week or ten days and return direct to Connecticut. I shall immediately after my return proceed on in making the models for So. Carolina the materials for which I began to collect six months ago. Assure the citizens of South Carolina that I entertain the most zealous and cordial disposition to put them in full possession of every possible improvement on that invention from which they have already derived such immense advantages.

Pardon the liberty which I have taken of addressing you on this occasion and believe me with

Sentiments of high Respect

Yr very Obdt Servt

ELI WHITNEY.

The Hon. Charles C. Pinckney, Esq.

XIII. PHINEAS MILLER TO PAUL HAMILTON, COMPTROLLER OF SOUTH CAROLINA.¹

CUMBERLAND ISLAND, Jany. 19th, 1803.²

Sir,

Your favor of the 3d Nov. last came to my hands at the moment of my departure for the upper Country, from which I have but lately returned. The sensations of Surprise to which your letter gave rise, and the perfect astonishment produced by the extraordinary proceedings of the Legislature of your State, were too great to allow me to comment upon, until a moment of leisure should arrive, and even now I am at a loss what to think of a decision so new in any kind of public proceedings. I acknowledge as a favor the explanation of the motives which induced you to adopt the measure which has terminated in so much injury and injustice because the explanations appear to be candid, and I presume the same candour will be exercised towards the comments to which your observations have given rise. And as a very large sum of money to individuals on the one part and the faith and justice of your State on the other are implicated by your official conduct I flatter myself you will indulge me in making a full statement of this important case, from which it will the more clearly appear whether the opinions I have adopted or those I have to controvert, are the best founded in principle and justice. With this indulgence I will then proceed to observe—

That in the fall of 1792 Mr. Eli Whitney whose Mechanical talents have since acquired him so much celebrity, first came to this State. The culture of the Green Seed Cotton had then just commenced as a Crop in the Upper Country, and two or three Million of pounds of this article in the seed, had been raised and picked in from the field, but for the want of a suitable Gin but a small part of it had been prepared for Market. In this situation of things as Mr. Whitneys uncommon talents began to be known he was urgently and repeatedly importuned to turn his attention to the discovery of Some new method of seperating this kind of Cotton from the Seed and thereby preserving an invalueable staple to the Southern States. To this he at first objected on account of the great expence and trouble which always attended the introduction of a new invention, and the difficulty of enforcing a Law in favour of Patentees in opposition to the individual interest of so large a number of Persons as would be concerned in the culture of this article. To which it was urged that justice might be obtained in the Federal Courts at all events

¹ From a copy of the original signed by Mr. Miller.

² Mr. Miller died before the expiration of this year.

in the Seaport Towns, and that in case of complete success the gratitude of the country towards so distinguished a benefactor would certainly be sufficient to bear down the small number of selfish and interested Men who should be willing to defraud him of his right; and being fully convinced myself of the correctness of their opinions I joined with those who entreated Mr. Whitney to turn his attention to this important object—but as he still seemed doubtful of the propriety of giving up the pursuit of a lucrative profession for which he had been destined to throw himself on the gratitude of a country or even on the support of a Law which was untried in effect I superadded the inducement of offering to become his joint adventurer in the attempt, and to be at the whole expence of maturing the invention until it should be Patented, with which offer and the united entreaty of all our friends, he at length with much reluctance complied, and soon afterwards with a great display of original Talent perfected the invention. The principle of which consists in the use of Teeth to work between passages or divisions of a breast work too narrow to give passage to the seeds and of a Brush to detach the cotton from the Teeth. Among the various modes which at once occurred to his mind of constructing these teeth for use, one was to cut them on a plate which should work perpendicular or horizontal rectilinear motion like a saw. Another was to cut the teeth on circular plates of Iron which should work in the manner like the present Gin used in the Upper Country. Of the last of these methods he made a partial trial by the construction of several Machines, but rejected it as inexpedient for common use, from the danger of doing an injury to the Staple of the Cotton, as such plates whenever they should come in contact with the sides of the breast work would cut such part of the Staple of the Cotton as should intervene, and their unyielding firmness would also force through the Breast work any bunches or lumps of the cotton which by damp weather, or foul particles, should have a tendency to clog the Machine. On these and some other accounts he preferred a less degree of dispatch accompanied as he believed with other superior advantages in the use of wire Teeth set in wood, to work through a Breast work of composition mettles, in the construction of which more ingenuity has been displayed than in any other part of the Machine. And among all those Mechanics who have claimed merit for their ingenuity in executing clumsy models of his invention no one as I can learn has attempted such a Breastwork. It was soon found however on experience that the teeth cut in circular plates could be made by an ordinary Smith, and the Machine be put together by a common Carpenter which would execute more work in a day than the best Machines with the improved breastwork constructed with wire Teeth, and a little injury more or less done to the Staple of the Cotton could not well be discovered until it should arrive at the Manufactory in Europe, and then it would be too late to comment on the mode of Ginning. If any credit be due to any one for introducing into common use this particular variation in the Saw Gin and thereby contributing to deprive the Patentees of the immediate profit of their invention to the ingenuity of Mr. William Longstreet

of Augusta, who conversed with me fully on the subject of the invention soon after it was brought into use, and whose candour as well as Mechanical Talents is too great to allow him to claim any merit or reward for opposing the prevailing opinion of the inventor in this particular. The original invention when constructed in either of these ways was an acknowledged improvement in the mode of freeing Cotton from the Seed, which saved at least nine tenths parts of the labour consumed in any process of the kind heretofore known. If the whole labour therefore of cleaning out a crop of Green Seed Cotton by rollers were fairly computed nine parts of this would, by law, be the property of the Patentees of the new invention, but as no planter would be at the trouble to bring into use the property of another without benefiting himself, a fair and equal division of this profit between the planter and inventor would be just and reasonable as regarded both the parties, and experiments have fully shown that the whole saving in this process effected by the introduction of teeth, instead of Rollers, is at the lowest estimation equal to one-fifth part of the whole Cotton so cleaned, and this estimation is indeed so low that before time was allowed to introduce the invention into the Upper Country it was common for the Planters to Waggon their cotton in seed one hundred and fifty Miles, and then give a fourth part to have it cleaned in this manner, and as I wish to be quite within bounds in continuing an estimation of this kind, I will suppose that the state of South Carolina have raised and cleaned out with the Patent Machinery including the present crop as much as Ten Million pounds clean cotton and that this has been worth to them an average of at least Sixteen Cents per lb., and as one fifth part of this is a nett gain by the Patent invention, it follows that the planters of that state have thus already gained an actual profit of at least Three Hundred Thousand Dollars by this important invention independent of the various advantages of extending through the Country a culture which must otherwise have remained confined to a few individuals. It is also probable that in the Six years of the Patent yet unexpired, the State will raise and clean out at least Ten Millions more of this species of Cotton which will superadd the further sum of Three Hundred Thousand Dollars to the profit of the invention. The one half of which two sums being the sum of three hundred thousand dollars would by every principle of Law and justice rightfully belong to the Patentees, but as this would accrue annually during the term of fourteen years it would be but reasonable that a Legislature which would assume the payments at short periods, should receive an abatement in the price. It was consequently Stated to the members of the Legislature of your State that the sum of Two Hundred Thousand Dollars would be just about the sum that a full acknowledgement and sanction on their part, of the rights of Law and the principles of justice would require them to give; and on the part of the Patentees it was a sum with which their reasonable expectations ought to be satisfied. At the sametime, it was well known that the original apprehensions of Mr. Whitney had been more than realised by the opposition to the Patent Law which had already taken place in this

State. That a Governor¹ in his communication to the Legislature had endeavored to arrange the popular passions and prejudices (already stimulated by motives of interest), on the side of this opposition; and that the Patentees were in great danger of finding the principles of Law and justice too feeble a barrier against such a tide of popular opinion; especially where the jury would oftentimes be interested in the result of their own decisions. Under these discouraging appearances the Patentees would have been very well satisfied to have given up to the Legislature the one half of the real value which they ought to have received for this property, and had flattered themselves that a sense of dignity and justice on the part of that honorable body would not have countenanced an offer of a less sum than One Hundred Thousand Dollars. Finding themselves however to be mistaken in this opinion, and entertaining a belief that the failure of such negotiation after it had commenced, would have a tendency to diminish the prospect already doubtful, of enforcing the Patent Law, it was concluded to be best under existing circumstances to accept the very inadequate sum of Fifty Thousand Dols. offered by the Legislature and thereby relinquish and entirely abandon three fourths of the actual value of the property. In closing the bargain for this amount, it is true that Mr. Whitney agreed to two conditions, which you mention, the one of which bound the Patentees to the return of the Notes of money received from individuals for the Sale of Licences, the other to the construction of two Models of the Machine by Mr. Whitney. In respect to the first of these conditions it is admitted to have been uncomplied with at the time stipulated by the Patentees for which the following reasons are offered—In the first place I had supposed that the money and specialties would have been returned to the Persons from whom they were received respectively, but at all events it was expected that Mr. Russell Goodrich the special agent of the Patentees would have attended to the fulfilment of this stipulation, but unfortunately he went a Journey into the State of Tennessee and to the Natches, where he was detained by indisposition and other unexpected events until the time had elapsed for the payment. This failure then being admitted, it only follows to ascertain the amount to which the legal or equitable forfeiture of the Patentees could fairly extend. In respect to the notes, no possible injury could arise to the drawers or to the state of So. Carolina by their detention. Since timely information was furnished that they were kept in safety and would certainly be given up. In respect to the money they detained, the amount is exactly \$580, and inasmuch as the extraordinary measures of your Legislature were about taking place at the arrival of Mr. Goodrich, his journey has been delayed by some subordinate circumstances so that he will probably have the honor to wait on you with this money about the first of next month which will extend the detention to five months, the interest of which for this period of time amounts

¹ Governor James Jackson, of Georgia, who had recommended in his message to the legislature that they either pay moderate compensation to Miller and Whitney for their patent right, or else suppress the patent.

to a little short of Twenty Dollars, and this sum very small and trifling as it is, is all that a court of law or equity would allow for the failure of a similar engagement between individuals, and it can hardly be supposed that the State of So. Carolina would avail itself of the power of State Sovereignty to make a greater exaction. But if the amount of 20 % per an. were required the damages would extend to no more than \$50 which never would have been made a source of complaint by the Patentees.

In respect to the second condition of the contract, I have just received a letter from Mr. Whitney who expressly says that he did not stipulate to deliver the Models by the first of Sep., but on the contrary that he refused to be bound by such a condition but that he expected to make them as soon as the pressure of his other business would allow, hence it appears in respect to this part of the contract that a verbal misunderstanding took place between yourself and Mr. Whitney, and that he has never believed any failure to have taken place on his part. But even admitting that your recollection of the conversation that passed between you and him was correct, and that he had been actually bound by such a mutual understanding to have the Models delivered by the first of Septem., what then would have been the damage accruing from a failure of this engagement? The citizens of the State of So. Carolina are already in complete possession of the principle of the invention together with the opinion of Mr. Whitney as well as that of Mr. Longstreet and others, as to the most expedient method of using it, and a net profit appears to have been made from it hitherto of not less than Three Hundred Thousand Dols. What then could have been fairly expected from an inspection of these two Models? Nothing more surely than a more neat and handsome method of constructing a well known machine, on a principle which has been in use for eight year than could be expected from the mechanics who are in the habit of constructing those kind of machines in the upper Country. But if the State of So. Carolina purchase an invention for the sum of Fifty Thousand Dollars which is worth at least Six Hundred Thousand, and are disappointed as to one fourteenth part of the time of the right of such purchase, in being shown how to construct the Machines depending on such invention, in a better manner than those in common use; how much will indemnify them for their supposed loss? If the citizens of that state had altogether been debarred from the use of the invention for the fourteenth part of the time for which it had been purchased, the proportion of loss might be easily calculated. But instead of having suffered any injury to this amount, it will appear I presume on examination that the Citizens of So. Carolina have made a net profit out of the use of the invention the last season of at least fifty Thousand dollars. Under these circumstances it is really matter of great surprise that it ever could have been supposed the purchase was made at a high price, or that the subsequent neglect of the Patentees could be thought of adequate importance to justify the detention of the purchase money. But much more is it the subject of astonishment that the Legislature of a State could not only proceed to sanction such a measure, but to pass

a resolution as I am informed they have done, directing a detention of the whole Balance of money due the Patentees, and ordering a suit to be commenced for what has been already paid and that an *ex post facto* measure of this magnitude in violation of an absolute contract and of a ruinous effect to the individuals who have furnished the Citizens of that State with an invention whereby they have been enriched by Millions for a cause so very unimportant. That is to say, for the damages of Twenty dollars in money, and the doubtful construction of the word *reasonable* as to which the Comptroller of the State and one of the Patentees have misunderstood each other, and which second amount of damage could not possibly have amounted to anything more than the loss of some small improvement in the invention for the term of one year.

But it has been privately reported and in a manner to gain belief, that the representations of a man by the name of Hodgen Holmes acquired so much credit with the legislature as to form a part of the secret ground of their proceeding. If this be true, the circumstance is not calculated to lessen my astonishment, that a Legislature should form themselves into a court of equity on the subject of their own contract, and in this capacity not only to listen to accusations against the other contracting parties, but to accuse and condemn them without a hearing. It is at all times difficult to meet accusations which are *ex parte* however false and groundless they may be. But I will take the liberty to State a few facts relating to this Hodgen Holmes which may serve to show how much confidence ought to have been placed on his representations.

Sometime after the Patent Machines of Miller and Whitney had been in use, this man availing himself of an examination of these machines and of some plates of Iron which had been cut into teeth for a similar Machine by another Person¹ at Augusta, proceeded to construct a clumsy Modal of the Machine already Patented And as no discretion is lodged with the Secretary of State in the execution of this trust, a Patent was issued to him on the Attestation which he ventured to forward with his Modal. The palpable imposition of this surreptitious encroachment on our right was so apparent as to induce us at first to take no measures to procure a legal interdiction to his pretensions, but having at length discovered that he was likely to be used as a tool to injure us without benefit to himself we caused an action to be instituted to set aside his Patent, which was determined against him on demurer by the Judge of the district Court at the last November term from which he did not appeal. During the pending of the action, he became satisfied with his improper encroachment on our right and offered to give up his surreptitious Patent, to pay the expences of the Action, and to give us the sum of two hundred Dollars for the use of a machine if we would withdraw the suit, to which we agreed and now hold his Notes for Two Hundred Dollars in part of his compliance with the agreement. But afterwards on his refusing to pay the expences of the suit it was continued and terminated as before mentioned. And it was after this pretention of his

¹ Perhaps this other person was Col. Bull.

had been Legally set aside, that he was advised to go to the Legislature of So. Carolina to see what could be don against Miller and Whitney. I had been previously informed that a certain popular character in this state¹ had boasted of his power to cause the contract for the purchase of the Patent in So. Carolina to be set aside, and I must acknowledge that the apparent gasconade and absurdity of such a threat left no kind of apprehension on my mind, merely because it was the State of So. Carolina instead of Georgia in which the comptrolling power was lodged.

Among the other sources of injury to the credit if not to the right of this discovery, I have lately heard that the pretensions of a Mr. Lyon have again been revived. We had supposed that his vanity and weakness on this subject had ceased to engage the attention of any man of sense. It is within our power easily to prove his Mechanical labour was subject to the direction of a much wiser head than his own; it is also been said that the vanity of some other country Mechanics has prompted them to claim a part of the credit if not the right of the invention. Some other unfounded reports are also said to have gone into circulation bringing into question the originality of the invention on the part of Mr. Whitney.² But if a property of this importance and magnitude which ought at least to be as much under the guardianship of the Laws, as any real estate, is to be held at the mercy of every popular report, fallacious indeed is the encouragement held out by Government for improvements in the arts.

You will please to excuse the prolixity into which I have been insensibly led in the preceeding observations, and if the expressions of my feelings should appear to be too free of restraint I must trust to your liberality to take into view the peculiarity of my situation, and to consider it as no common injury to be thus suddenly deprived of so large an amount of property which the labour of eight years and a large sum of money have been expended in securing. And at the same time you will accept my assurance that no intentional offence would ever willingly be offered, either to your official or private capacity by your respectful

and obe. servt.

PHINS. MILLER.

XIV. ELI WHITNEY TO JOSIAH STEBBINS.³

WASHINGTON CITY, 6th March 1803.

Dear Stebbins,

I cannot now tell what, from whence, or when, I wrote you last. I have been here three weeks, and am now laying up to regain the health of which the severity of this winter's tour has deprived me. I am thus far

¹ Possibly this reference is also to Gov. James Jackson.

² Immigrants to the United States from Ireland and England asserted that in the flax and cotton factories of those countries they had seen machines similar to Whitney's gin, which were used for preparing these textile materials for manufacturing purposes. Dr. Cortes Pedro Dampiere also testified before a committee of the South Carolina legislature that he had seen in Switzerland a machine similar to Whitney's which was used for picking rags to make lint and paper. Olmstead, *Memoir of Eli Whitney, Esq.*, p. 32.

³ Cover addressed "Josiah Stebbins Esquire Post Master New Millford District Maine. *Mail.*" Postage 25 cents.

on my return from So. Carolina and hope in three or four days to be able to proceed on to Connecticut. The weather this season has been constantly and suddenly changing from one extreme to the other, which has rendered this journey very tedious and fatiguing. I had some business to negotiate here which I have been so fortunate as to accomplish entirely to my own satisfaction. My contract to manufacture 10,000 stands of Arms was really a very arduous undertaking. There is yet much to be done to compleat it. I have hitherto gone on no faster than I could go safe. It has been an important object with me to persuade the administration to allow me so much time to go on easy with it till it is compleat. This they have done. I have obtained all the time I wished. This has relieved me from a vast load of anxiety which any one must naturally feel when their all is in the power of those in whom they have not the most perfect confidence. Besides this will allow me leasure to attend to my Patent concerns to which I find my personal attention to be of the first importance. Nothing has been effected in the business but what I have done myself and I am well persuaded that no person or persons would have effected anything had I been absent. The cotton machine is a thing of unusual value and by pushing hard I hope to realize something for it. The cotton cleaned annually with that machine sells for at least five Million of Dollars and the annual worth of the invention is equal to at least one fifth of that sum ; but so large a proportion of mankind are such infernal Rascals that I shall never be able to realize but a trifling proportion of its value. You know I always believed in the "*Depravity of human nature.*" I thought I was long ago sufficiently "grounded and stablshed" in this Doctrine. But God Almighty is continually pouring down catarracts of testimony upon me to convince me of this fact. "Lord I believe, help thou," not "mine unbelief," but me to overcome the rascality of mankind.

I have seen our old friend H. D. Ward this winter. He lost his wife and his own health last summer, is emaciated, looks old and is very gray. Expects to visit Mass. next summer. Has made a handsome fortune and is a respectable man in that country.

With Love and friendship, of which let Laura and the little ones come in for a liberal share, with an adieu and God Bless you, I close for this evening.

ELI WHITNEY.

J. Stebbins, Esq.

XV. ELI WHITNEY TO JOSIAH STEBBINS.¹

WASHINGTON CITY, 7th March 1803.

Dear Stebbins,

When I returned from Georgia the first time, in the year 1793, you were at N. Haven and remained there for sometime afterwards. We were in the habit of communicating freely with each other upon every subject which occupied any part of our attention, especially

¹ Cover addressed "Josiah Stebbins Esquire Post Master New Milford District of Maine." Postage 25 cents.

whatever related in any wise to my invention of the Cotton Gin. Did I not in the course of that year or year following, tell that my original Idea was to make a whole row of teeth of one piece of metal?—to make them out of sheet Iron? That I had recourse to *wire* to make the teeth from necessity, not being able to procure sheet Iron or sheets of tined plates—that one of the Miss Greens had broug out a coile of iron wire to make a bird cage and being embarrassed for want of sheet iron and seeing this wire hang in the parlour it struck me that I could make teeth with that? Several Patents have been issued for machines on my principle. One of the patentees claims as his invention the making the rows teeth of sheet iron instead wire. The fact is he was told that was my original Idea and my machine was particularly described to him, even by drawings of every part. It is also a very plain fact that the principle is the same in whatever way the teeth are made and that they may be made in a vast variety of ways. We commenced a suit against this man to have his Patent vacated. After a tedious course of litigation and Delay we obtained a judgment on the ground that the principle was the same and that his patent was surreptitious. His Patent was vacated and Declared to be void. He came forward and paid up the costs and purchased a License of us to use the machine for which he had pretended to get a Patent, and we now hold his note given for that licence. By some neglect of the Judge or mistake of the Clerk in entering the Judgement, upon a new Democratic District Judge being appointed he found means to revive the cause. After another series of delays and his own Judge was obliged to give judgment against him, still these designing rascals who pretend to hold up his claim and make a handle of it to our disadvantage and although I have no idea that any court can be so abandoned as to take any serious notice of it, yet I should like to obtain such testimony as will shew it to be my invention and thereby put a compleat stopper on that business. We have already one positive witness of the fact, the first person to whom the Machine was shewn,¹ (beside Miller's family,) which was in the spring of '93.

It appears to me that I have mentioned this circumstance to a number of those with whom I was intimate at that time. I wish you to be so good write me soon and inform me if you recollect anything of this kind to which you can testify. A whole country of ignorant unprincipled people who have been long irritated and mislead by designing Demagogus and deeply *interested* in invalidating my claim will go almost any length to accomplish their purpose. If taking my life would have done away this claim, I should have had a Rifle Ball thro' me long before this time. Write to me as soon as you *can*, and as often as you *can*, and in the mean time and at all times and forever may you be happy.

E. WHITNEY.

J. Stebbins, Esq.

¹ Probably Nathaniel Pendleton.

XVI. ELI WHITNEY TO JOSIAH STEBBINS.¹

NEW HAVEN 15th Oct. 1803.

Dear Stebbins,

The fates have decreed that I shall be perpetually on the wing and wild goose like spend my summers in the North and at the approach of winter shape my course for the Regions of the South. But I am an unfortunate goose. Instead of sublimely touring thro' the aerial regions with a select corps of faithful companions, I must solely wade thro' the mud and dirt a solitary traveller.

While on my tour the last winter I wrote you several letters to several of which I have recd. no answer. I wrote you a letter from the City of Washington almost a year since in which I gave you some account of Thos. Paine. I feel a little anxious lest this letter may have miscarried. I wrote you also last spring from Savannah (if I recollect rightly) requesting some information relative to my invention of the cotton machine. I should be gratified to know whether you recd. these letters or not.

I shall start from here in ten Days, for So. Carolina in order to be there at the meeting of the Legislature of that State and expect to return in January or February. A multiplicity of avocations has prevented my writing you for some time past and it has been so long delayed that I fear I shall not be able to get an answer from you before I commence my Journey.

I have still a host of the most unprincipled scoundrels to combat in the Southern States. I have not now leisure to go into detail but I want to enquire of you if you cannot give your deposition to the following import (viz).

I, Jos. Stebbins &c &c —

Do testify and declare that I have been intimately acquainted with Eli Whitney, originally of Massachusetts but now of New Haven in the state of Connecticut, for more than fourteen years. That the said Whitney communicated to me his discovery and invention of a Machine for cleaning Cotton from its seed by means of teeth passing between bars or ribs of a part which he called a breast work, more than six months before he obtained a patent for said invention.² That I saw sd. Whitney almost every day thro' the summer and autumn of the year of 1793, at which time I was a resident Graduate in Yale College. That we had many and frequent conversations on the subject of Mechanics and Natural Philosophy in general and particularly with reference to his sd. invention. That I transcribed his specifications or description of sd. machine several times and that he conferred with me relative to the various parts of sd. Description. And I well remember that sd. Whitney repeatedly told me that he originally contemplated making a whole row of teeth from one plate or piece of metal such as tin plate or sheet Iron and that he afterwards had recourse to wires to make the teeth from necessity, not having it in his power at that time to procure either tin or Sheet iron in Georgia.

¹ Cover addressed "Josiah Stebbins Esquire Post Master New Milford District of Maine." Franked by Whitney.

² I obtained my patent 14th March 1794.

That in the first Draft of his Specification he had mentioned sheet iron as a material out of which the teeth might be made but we concluded it was wholly unnecessary as it did in no way affect the principle of the Machine being only one of a great variety of methods in which the teeth might be made and it was struck out. I also recollect that the said Whitney previous to writing a Description of his Invention had contemplated a variety of methods of making each of the several parts of the Machine but it was thought to be wholly immaterial that they should be mentioned in the Description—&c &c.

I hope you will be able to call to mind the circumstances mentioned above, not that they would be of any importance with an enlightened upright Judge. The circumstance of making the teeth of sheet iron is really of no account as it regards the Principle and my Right; but as that is the method in which the trespassers make the machines, they lay great stress upon it, and if I can but prove the truth about it, it will stop their mouth on this subject. I have a set of the most Depraved villains to combat and I might almost as well go to *Hell* in search of *Happiness* as apply to a Georgia-Court for Justice.

I fear that I have delayed writing to you so long that I cannot get an answer from you before I leave this, which will be as early as the 25th of this month. But I would thank you to loose no time in writing to me and Direct to me at Columbia South Carolina—whatever your recollection will enable you to testify to, relative to the early history of my Invention. I wish you to forward to me a Deposition signed and sworn to. I am sensible such a Deposition will not be recd. in a court of Law, there being no Commission taken out to take the testimony but it will be very useful to me in some important arrangements which I wish to make. I hope it will be convenient for you to write me soon after you receive this as any delay will deprive me of any benefit which I may derive from your Deposition.

I shall not make any considerable Stop before I reach Columbia in So. Carolina which place I do not now expect to leave before the 20th of December. Write me as much and as often as you *can*. I shall have more leasure to write you while traveling than I have had the summer past and you may expect to hear from me occasionally.

My armoury here has got to be a regular Establishment and progresses tollerably well, and I flatter myself I shall make something handsome by the undertaking. My works have considerably excited the Public Curiosity and are visited by most People who travel thro' this country, this however is not so flattering to my vanity that I do not wish to be less thronged with Spectators. It would really give much sincere pleasure and satisfaction to see you here and shew you what I have been doing for three or four years past. Can you not visit us next summer?

With best and most affectionate regards to Laura and ardent wishes for your [own] happiness, I am, have been and [shall be]

Your sincere friend,

E. WHITNEY.

Josiah Stebbins, Esq.

XVII. NATHANIEL PENDLETON TO CHARLES COTESWORTH PINCKNEY.¹

NEW YORK, Novemb. 1, 1804.

Dear General,

Mr. Whitney informs me that the State of South Carolina had agreed to give the proprietors of a Cotton gin, invented by him and for which he has a Patent, a sum of money for the use of it for that State, and that the Legislature have since directed that the money should not be paid which remained due, and that a suit be instituted to recover back what has been paid upon a suggestion that he was not the inventor of the machine.

Having been one of the first persons who saw his machine when it was first put in Motion he has thought my declaration may be of some use to him. It was in the Spring of 1793, at Mulberry Grove, and in the house where the machine appeared to have been made was a wire machine and other instruments which Mr. Whitney informed me he had used. I had no doubt then, nor have I any now that Mr. Whitney was the inventor of that machine during the preceeding winter. Soon afterwards a machine house was put up at Mulberry Grove by Mr. Phineas Miller, and several of those machines worked in it by Cattle, which I frequently saw. I am well acquainted with Mr. Whitney and believe him to be a man of integrity, and of extensive and useful mechanical powers. His machinery at New Haven for making muskets has been represented to me as a prodigy of skill and accuracy. Any services you may have it in your power to render him, I think you will find to have been justly merited.

I am, Dear General, with great Esteem and Affection

Your Obedient Hble. Srvt

General Pinckney.

NATH. PENDLETON.

XVIII. ELI WHITNEY TO JOSIAH STEBBINS.²

SOUTH CAROLINA 9th Feb. 1805.

My Dear Stebbins,

I left New Haven about the 25th Oct. last. I made no considerable Stop till I arrived at Columbia in this State; where I staid about four weeks. From thence I went to the city of Charleston, where I spent three weeks. From thence to Savannah in Georgia where I passed one week, and am now on my return, 95 miles from Savannah and 28 miles from Orangeburg, the residence of our old friend H. D. Ward whom I hope to have the Pleasure of taking by the hand to-morrow. I shall proceed directly on by the way of Camden to Rocky Mount upon the Great Falls of the Cataba River where I shall spend two or three days return to,

¹ Cover addressed "Major General Pinckney South Carolina, favor of Mr. Whitney." Major Pendleton was one of the planters whose conversation at the home of Mrs. Greene first gave Whitney the idea of inventing a cotton gin. Olmsted, *Memoir of Eli Whitney*, Esq., p. 13.

² Cover addressed "Josiah Stebbins, Esquire, Postmaster, New Milford, District of Maine, Massachusetts Mail, Orangeburgh, February 14." Franked by Whitney.

Camden and from thence make the best of my way back to Connecticut, as fast as the season of the year and the state of the roads will permit. I have traveled the rounds thus far and expect to finish my tour by Land and with the same set of horses with which I started. You will perhaps recollect that three years ago I sold my Patent Right to the State of So. Carolina, that soon afterwards, much like Children and much more like rogues, they refused to make the stipulated payments. The principal object of my present excursion to this Country was to get this business set right; which I have so far effected as to induce the Legislature of this State to recind all their former *Suspending Laws* and *resolutions*, to agree *once more* to pay the sum of 30,000 Dollars which was due and make the necessary appropriations for that purpose. I have as yet however obtained but a small part of this payment. The residue is promised me in July next. Thus you see my *recompense* of *reward* is as the land of Canaan was to the Jews, resting a long while in *promise*. If the Nations with whom I have to contend are not as numerous as those opposed to the Israelites, they are certainly much greater *Heathens*, having their hearts hardened and their understanding blinded, to make, propagate and believe all manner of lies. Verily, Stebbins, I have had much vexation of spirit in this business. I shall spend forty thousand dollars to obtain thirty, and it will all end in vanity at last. A contract had been made with the State of Tennessee which now hangs *suspended*. Two attempts have been made to induce the State of No. Carolina to *recind* their *Contract*, neither of which have succeeded. Thus you see Brother Steb. Sovereign and Independent States warped by *interest* will be *rogues* and misled by Demagogues will be *fools*. They have spent much time, *money* and *Credit*, to avoid giving me a small compensation, for that which to them is worth millions.

I have had less leisure to write you this winter than heretofore, tho' not fewer good wishes for your health and happiness. Impart a double portion of my affectionate regards to Laura and her little ones and be assured that I remain

Yr unaltered and unalterable friend

E. WHITNEY.

J. Stebbins, Esq.

REVIEWS OF BOOKS

Philip and Alexander of Macedon. Two Essays in Biography. By
DAVID G. HOGARTH, Fellow of Magdalen College, Oxford.
(New York: Charles Scribner's Sons. 1897. Pp. xiv, 312.)

It is safe to say that no school-boy or college student ever reads the orations of Cicero and Demosthenes without mental reservations in favor of Catiline and Philip. The oratory is more or less dimly felt to disguise the truth. Neither of the great victims of the oratory can now get his side of the case fairly before us, because literary and historical tradition are so exclusively hostile. This is especially true in the case of Philip of Macedon. Leaving out of view the tantalizing fragments of Theopompus, we are compelled to see Philip through Athenian, or at least philo-Athenian, eyes. And Chæroneia drowned the voices of all Athenian Philippizers, even those of Isocrates and Phocion, so that Athenian eyes look only hatred. In Philip's case, then, the task of the biographer is to rescue character and career from the distortions of a tradition which is at best scanty, and which is prevailingly hostile. Even the outlines of portions of Philip's career must be conjecture, and the reasonably sure outlines of other periods must be filled in by cautious inference and combination. Correction of material given and supplementary suggestion where material of tradition fails must both characterize a good biography of Philip of Macedon, but constructive criticism must be more largely employed.

Far different is the task of the biographer of Alexander of Macedon, so different as to call for an entirely new balance of powers. Tradition, in the case of Alexander, has an overwhelming magnitude and scope. It is also, in the main, adulatory. Romantic invention has multiplied details which were before superabundant. There is little call, then, for supplementary conjecture in giving detail to meagre outlines, or in furnishing the outlines themselves. The colossal figure of the world-conqueror must rather be stripped of nebulous accretions and restored to something like human proportions. The miracles of his career must be rationalized. For this task destructive rather than constructive criticism must be more largely employed.

It would be only natural that a historian who attempted both these tasks should perform them unevenly. Mr. Hogarth's *Philip* is far superior to his *Alexander*, and meets a want more keenly felt. "Philip," as the author says, "supplies the central figure to no extant biography; Alexander has inspired a whole literature." Philip was great not merely "for what it was given him to do," but also for what he was. He crushed Greek autonomy, but substituted for the degenerate city-state the